**The Constitutional Limits on Application of AI in the Judicial Practice** (Draft)

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1. **Trial Project in Taiwan: Aborted Prematurely**

In August 2023, Taiwan's Judicial Yuan proposed a trial project to reduce judges' workload by using AI to draft judgment templates for simple, large-quantity of criminal cases such as "driving under the influence" and "assisting fraud." The AI's role was limited to assisting with drafting, leaving core judicial decisions（e.g. fact-finding, sentencing）to human judges. However, public and legal professionals raised human rights concern and fears of replacing human judges, viewing the initiative as premature, lacking transparency and dialog with the society. Facing widespread distrust, the Judicial Yuan postponed the project indefinitely and reassessed the plans for its policy implementation from the ground up. In January 2024, the Judicial Yuan proposed six key principles as guiding framework for future policy deliberations: 1. Judicial accountability must always rest with humans, not AI. 2. Evaluation of the applicability of the principle of “statute law reservation”. 3. Adherence to the principles of transparency and openness. 4. Deliberation on the scope of matters to be reserved for human judges. 5. The right to be free from adjudication by AI. 6. Ensuring cybersecurity and protecting personal data.

The following 40-minute speech presents my further reflections on the application of AI in judicial adjudication—a set of views I developed in my capacity as an academic after stepping down from office. These opinions are solely my own and do not represent the Judicial Yuan. I will first introduce the latest developments in the use of AI in Taiwan's judicial practice. Next, building on the fundamental principle that, regardless of how AI technology is integrated into judicial practice in the future, adjudication—as an exercise of the state's public authority—must never challenge or undermine the principles of constitutionalism, as stipulated by the Constitution, I will distinguish between two scenarios: AI as an auxiliary tool for judges and AI as an independent judge, and then analyze the potential legal framework challenges associated with each scenario to ensure that such applications remain in line with the requirements of constitutionalism.

1. **The latest developments in the use of AI in Taiwan's judicial practice**
   1. **The current technological capabilities and potential limitations**

To my understanding, in the short term, current technology only allows AI to serve as an auxiliary tool for judges, acting as an augmentation of human intelligence. The core tasks of fact-finding, legal interpretation, and sentencing remain decisions reserved for human judges.

The main reason is that generative AI is essentially an advanced engine of ‘text autocompletion’. No matter how well it is trained, it cannot entirely avoid generating responses that appear reasonable but are actually incorrect—this phenomenon is known as AI "hallucination." Since the accuracy of its responses cannot be guaranteed, there is a gap between AI-generated answers and the precision required in legal work.

Secondly, considering the logical structure of legal syllogism, the first step involves identifying the legal provisions as the premise. However, the content of legal provisions is often ambiguous and requires interpretation. Judicial precedents may also be unclear or even contradictory. Determining the "appropriate" and "correct" legal norms often necessitates value judgments made by humans based on their values, life experiences, and wisdom—something generative AI cannot accomplish.

As for fact-finding, the facts that serve as the minor premise in legal reasoning are often disputed and must be established based on evidence. Inferring facts from evidence involves complex human cognitive reasoning, which AI is currently incapable of handling.

Finally, when applying any law to a specific case, judges must conduct constitutional review to ensure that the law being applied does not conflict with higher-ranking constitutional principles. Determining whether a law is unconstitutional involves complex legal reasoning and value judgments, which AI cannot undertake.

Therefore, currently all three of the Judicial Yuan’s most important ongoing **Smart Justice** initiatives utilize AI solely as an auxiliary tool to assist judges, playing the role of augmenting human intelligence with the core of judgement still under control of judges.

* 1. **The currently ongoing implemented and planned Smart Justice projects**

The most important three ongoing implemented and planned **Smart Justice** initiatives are as follows:

* + 1. **AI System for Drafting Judgments**

Firstly, developing an automated judgment draft generation technology for case types that are high in volume, categorizable, and highly repetitive. Currently, an automated system for generating initial judgment drafts has been completed for offenses such as "driving under the influence", "assisting fraud" and “drug use”. Ongoing developments include criminal cases such as theft, injury, and "failure to stop after an accident" offenses, as well as civil cases involving financial institutions’ claims for loan repayment, consumer debt relief, and compensation for traffic accident damages. It is important to emphasize that this system operates on the premise that the judge has already independently formed their judicial conviction (e.g., the judge must first determine whether the verdict is “guilty” or “not guilty”). The system functions solely as an auxiliary tool for drafting judicial decisions and cannot replace the judge’s role in fact-finding or legal reasoning.

* + 1. **AI-Assisted Sentencing Information System**

Second, the Judicial Yuan is developing and implementing the "AI-Assisted Sentencing Information System." This system integrates machine learning, keyword extraction, and other natural language processing (NLP) techniques to automate the identification and extraction of sentencing factors, thereby enhancing the efficiency of judicial interpretation in sentencing. Judges can input the factual details of a case, and the system will automatically retrieve sentencing patterns from past judicial rulings for reference, aiming to improve consistency and fairness in sentencing decisions.

Currently, the system is limited to five types of cases: driving under the influence, aiding fraud, theft, assault, and failure to stop after an accidentoffenses**.** In the future, its scope will be expanded to include cases involving homicide, robbery, drug-related offenses, and sexual offenses**.**

* + 1. **Courtroom Speech Recognition System**

Third, in response to advancements in AI technology, the Judicial Yuan is implementing a courtroom speech recognition system in criminal courts, with plans for gradual nationwide expansion to all courtrooms.

Recognizing that transcripts generated by speech recognition systems are verbatim records, which can be overly detailed and difficult to navigate, the Judicial Yuan is currently exploring the use of ChatGPT-powered summarization tools to extract key points from transcripts. This feature will assist judges in drafting rulings and reviewing case files more efficiently.

Both the AI-Assisted Sentencing Information System and the Courtroom Speech Recognition System have already been implemented in judicial practice without triggering any public controversy. However, it is surprising that the Judgment Draft Auto-Generation System, which applies AI technology in only a limited capacity, has faced widespread skepticism.

Public trust is the judiciary’s ultimate lifeline. To earn that trust, it is necessary to pause the integration of AI in drafting judgements and, before taking the next step, reassess the adequacy of the existing legal framework governing AI applications in judicial practice from the ground up.

1. **Legal framework challenges while using AI as auxiliary tool to assist judges**
   1. **Does the use of AI as an auxiliary tool require legal authorization?**

Does the use of AI as a judicial assistance tool require legal authorization? In Taiwan, opinions within the Judicial Yuan are already divided.

Those who take a negative stance argue that judges have long relied on human judicial assistants to help gather and analyze relevant rulings and legal materials, as well as to provide recommendations—a practice that has existed for years without ever requiring legal authorization. If replacing human assistants with AI assistants to perform the same tasks—perhaps even more accurately and efficiently—why should legal authorization suddenly be required?

Based on the following reasons, I take an affirmative view:

First, as previously mentioned, the AI-generated opinion might include hallucination, and the past court rulings used to train the AI models may reflect prevailing societal biases and discrimination at the time they were rendered—whether based on race, age, gender, place of residence, or income level etc. Additionally, AI models may rely on outdated data and legal opinions, making them unable to adapt to the evolving needs of contemporary society, thereby rendering AI-generated opinions potentially unreliable.

Due to path dependence and the black-box nature of AI algorithms, most people—including judges—may lack the ability to critically assess AI-generated recommendations. As a result, there is a significant risk that human judges might uncritically and unconditionally adopt AI-generated opinions, ultimately leading to violations of human rights. In sum, compared to human assistants, errors made by AI assistants are more difficult to detect, posing a greater risk of human rights violations.

Secondly, the vast amount of data collected for training and learning purposes—such as past court rulings— inevitably includes personal and private information which raises privacy infringement issues. Moreover, a significant portion of the collected data is protected by copyright, including legal literature, public commentary, and legal analyses etc. The use of these copyrighted materials for AI training and learning may lead to potential copyright infringement concerns, further complicating the legal and ethical implications of AI system development.

The final and most crucial reason concerns public trust. Trust in the judiciary is the cornerstone of judiciary’s legitimacy and stability. Currently, the Taiwanese public remains largely skeptical about the use of AI to assist judges in making rulings. If AI is introduced as a judicial assistance tool, it could significantly erode public confidence in judicial fairness and impartiality.

Therefore, based on the reasons outlined above, the use of AI as an auxiliary tool for judges, in principle, requires authorization by laws enacted by the legislature, which represents the will of the people. Ethical guidelines or internal directives issued by the Judicial Yuan alone are unlikely to provide sufficient justification for its implementation.

* 1. **A specialized law governing the use of AI as an auxiliary tool in judicial adjudication is necessary**

In 2024, the Taiwanese government introduced a draft **Fundamental Act on Artificial Intelligence**. The primary objective of this legislation is limited to establishing a general policy framework applicable across various AI applications. Given the varying degrees of impact AI may have on fundamental rights and public interests in different fields, the necessity of enacting specialized legislation for each field is evident.

Specifically, regarding the application of AI in judicial adjudication as an auxiliary tool for judges, as mentioned above, legal authorization is required. However, as a general policy directive applicable to multiple fields, the **Fundamental Act on Artificial Intelligence** is clearly insufficient to serve as the legal foundation for such authorization. A **specialized AI law** tailored specifically to the application of AI in judicial adjudication is necessary.

For the sake of discussion, this law may be referred to as the **Special Act on the Application of Artificial Intelligence in Judicial Adjudication.**

* 1. **Matters of significance the Special Act should address**

The application of AI in judicial practice involves complex matters. In particular, any issue that significantly impacts the constitutionally protected right to legal remedy or substantially affects public trust in the judiciary must be directly stipulated by the Special Act or, at the very least, regulated through orders explicitly authorized by the Special Act in order to comply with the principle of ‘statute law reservation’.

* + 1. **fundamental values that must be upheld**

Similar to an AI Basic Act, a Special Act must also specify fundamental values that must be upheld, such as respect for human rights, transparency, fairness and non-discrimination, cybersecurity and safety, privacy protection, and data governance etc. Additionally, it should place particular emphasis on due process and the preservation of public trust in the judiciary.

**3.3.2.** **AI systems must be controlled and supervised by the Judicial Yuan**

While the development of AI systems undoubtedly requires the assistance of private-sector information technology firms, the Special Act must explicitly mandate that such systems be controlled and supervised by the Judicial Yuan to ensure information security and maintain the system’s credibility.

* + 1. **Guidelines for System Development**

During system development, any information fed into the AI for training and learning purposes that contains personal data—such as court rulings—must be anonymized to protect privacy. If the data includes copyrighted materials belonging to private individuals, such as legal literature or media reports, and raises questions regarding "fair use," this issue should be addressed by a general law, such as the AI Basic Act or copyright law, since it is a common concern across various AI applications in different fields. In this Special Act, unless a distinct approach is required for this specific domain, it does not need to be addressed.

As for whether the data fed into the system is "accurate" and whether it unintentionally or intentionally reflects biases and discrimination—thereby perpetuating them—how can such risks be avoided? This concern is particularly pressing when developing so-called "AI-Assisted Sentencing Trend Recommendation System", similar to the COMPAS system used in U.S. judicial practice, which, by collecting perspectives from public information sources on sentencing factors and their relative influence, generates sentencing trend recommendations for various offenses as a reference for judges. The goal is to assist judges in incorporating societal notions of fairness and justice into their sentencing decisions, ensuring that judgments reflect the values and expectations of diverse social perspectives. While this system has its advantages, it also carries inherent risks. The greatest concern lies in whether the societal values and expectations it reflects conceal biases and discrimination, such as those related to income, occupation, education, gender, or sexual orientation. The mechanisms for reviewing and preventing such biases must be clearly articulated in the Special Act.

Furthermore, based on the principle of due process, the algorithm must be made appropriately transparent for external review. This requirement should also be explicitly stated in the Special Act.

* + 1. **Factors to consider when determining the scope and timing of AI-assisted system implementation in judicial proceedings**

AI-assisted judicial decision-making raises at least two key issues that need to be addressed：

First, in the entire judicial decision-making process—ranging from the collection and analysis of past similar rulings, recommendations on applicable legal provisions, evidence analysis, suggestions on case outcomes (such as whether the plaintiff prevails), sentencing recommendations, and even drafting a reference judgment—should AI be allowed to assist in all aspects, or only in specific stages? In Taiwan, for instance, current judicial practice only permits AI to provide sentencing recommendations based on case precedents. The plan to have AI draft judgment templates based on predetermined facts and conclusions, as previous mentioned, has been delayed due to a lack of public trust. In sum, decisions on the abovementioned matters must take into account the level of AI technological development, the impact on litigants' right to fair trial, and the degree of public acceptance etc.

Another key issue is determining the types of cases in which AI may be used as an auxiliary tool for judicial decision-making. Should its use be limited to civil or criminal cases, or should there be no such restriction? Should AI assistance be confined to simple cases or those with high volume and repetitive patterns, or should it be broadly applicable? Additionally, at which stage of the judicial process should AI be permitted? Should it be restricted to trial courts, or should it extend to appellate courts as well? Decisions on these matters must similarly take into account the level of AI technological development, its impact on litigants' rights (including the right to appeal), and the degree of public acceptance.

**3.3.4. Establishing an independent, diverse oversight body to determine key matters**

Given the diverse professional demands, the need to adapt to the dynamic development of AI technology, the need for transparency, and the imperative to uphold public trust in the judiciary, the Judicial Yuan is obliged to implement appropriate and necessary organizational and procedural safeguards when using AI as an auxiliary tool in judicial decision-making. These measures are essential to ensuring compliance with the constitutional protection of the right to a fair trial.

The most critical of these safeguards is the establishment of an independent oversight body composed of a diverse range of experts, including representatives from the Judicial Yuan, judges, prosecutors, attorneys, legal scholars, computer science and information technology specialists, and statistical experts etc. This independent and multidisciplinary body must be entrusted with continuously assessing key factors such as the pace of AI development, the risk of errors, the complexity and volume of case types and level of public acceptance etc. Through a transparent and publicly accountable process, it should be empowered to determine crucial issues relating to application of AI as assisting tool for judicial decision-making, such as when (i.e., under what conditions AI should be introduced), at which procedural stages (e.g., data collection, data analysis, legal provision application recommendations, evidence collection and analysis, decision-making recommendations, or drafting of judicial rulings), within what scope (e.g., whether AI assistance should be permitted in all case types or only in specific categories of cases), and at which level of adjudication (e.g., whether AI should be limited to trial courts or allowed at appellate levels under certain conditions) AI may be used as a judicial assistance tool. Only by adopting a governance framework that is diverse, expert-driven, deliberative, independent, and transparent can the judiciary both leverage AI to enhance judicial efficiency and alleviate judges' workload while simultaneously maintaining public confidence in the judicial system.

Additionally, the independent, diverse oversight bodyshould also be empowered, when necessary, to verify whether the data used for AI training and learning is “accurate”, whether it infringes on personal privacy, and whether it contains biases or discriminatory elements.

**3.3.5. Does the use of AI as an auxiliary tool in judicial adjudication require transparency?**

If the above mentioned independent, diverse oversight body permits AI to generate recommendations at certain procedural stages of specific case types to assist judges in making decisions, the undeniable factual influence of AI on the outcome of judgments warrants disclosure. Based on principles of due process, in principle, it should be disclosed that the judgment in question was assisted by generative AI.

**4. Legal framework challenges while using AI as an independent Judge: The so-called "AI Judge"**

In the future, if technical challenges and ethical concerns are resolved, AI could potentially operate autonomously as a decision-maker, akin to depictions in science fiction—what is termed the "AI judge." The question is: What legal and institutional challenges would arise in establishing the framework for the introduction of independent AI judges?

**4.1. Does the introduction of "AI Judge" require constitutional amendment?**

The answer is affirmative. Article 81 of the Constitution of Taiwan stipulates that judges hold lifetime tenure and may not be removed from office unless subjected to criminal or disciplinary sanctions or declared legally incapacitated. The concepts of lifetime tenure, criminal or disciplinary sanctions, and legal incapacitation are clearly applicable only to human beings. This demonstrates that from the outset, the Constitution presupposes that judges are human. Even with the broadest interpretive approaches, replacing human judges with AI represents a transformative paradigm shift that goes far beyond currently conceivable canons of interpretation of statute law. Therefore, unless the Constitution is amended, revising laws to permit the existence of AI judges would be unconstitutional.

* 1. **Domains preserved for human judges (Human judges reservation)**

Should certain domains (e.g. deprivation of human life and personal liberty) be reserved for human judges while others might be entrusted to AI judges? This is not only a matter of legal ethics but also a constitutional issue. Personally, I believe that decisions involving the deprivation of personal liberty or even human life should not be made by AI judges; such judgments must be reserved for human judges. Otherwise, it would violate human dignity, which serves as the foundation for all human rights protections. After all, it is hardly to imagine that the human dignity protected by the Constitution would allow a non-human "robot" created by humans to, in turn, deprive individuals of their personal liberty or even human life.

For other types of cases—such as civil cases related to property rights, limited criminal cases related to forfeiture, and administrative law cases—even if AI judges are allowed to make independent decisions, the final ruling should at least be reserved for decisions made by human judges. This is because AI is built through the feeding of pre-existing data and inherently tends to follow established patterns. It is hardly be expected to make judgments that deviate from traditional rulings. Therefore, it is essential to preserve the final decision-making authority for human judges. Only in this way, as seen in Taiwan, can significant changes like the legalization of same-sex marriage and the abolition of adultery laws through judicial review of the constitutional court become possible.

* 1. **Legal authorization is, of course, needed**

No matter how advanced AI becomes—whether its reasoning ability closely resembles or even equals that of humans—it remains a human invention, subject to human control, and its use is ultimately a matter of human decision-making. Accordingly, when AI is applied to judicial practice, accountability for judicial decisions must still rest with humans, not AI.

Therefore, the question of whether to introduce AI judges should, without a doubt, be determined by the legislature, which represents the will of the people, through the enactment of law. This is essential to uphold the principle of democratic accountability. Furthermore, the introduction of independent AI judges would inevitably affect public trust in the judiciary and raise fundamental concerns about judicial legitimacy. Given the gravity of these issues, it is imperative that the decision be made by the legislature as the rightful representative of the people.

**4.4.** **Can AI judges coexist with the right to appellate remedy?**

A further question: If AI judges are permitted to decide certain types of cases, does the right to appeal and the existence of higher courts still remain necessary for such cases? After all, the AI system used in the judiciary should, in theory, be unified. If both the trial court and the appellate court rely on the same AI judge system, the appellate process may become redundant—unless the law restricts AI judges to first-instance trials only. Whether AI judges and the right to appellate remedy can coexist, and whether AI judges will fundamentally reshape the existing system of appellate review, are questions that warrant further discussion.

**4.5. Right to a Trial Free from AI Judges**

Even if constitutional barriers are overcome and legislators authorize AI judges to decide certain categories of cases, the fundamental protections of the right to legal remedy and due process require that litigants must, at the very least, retain the right to request exemption from adjudication by the AI judge. pre-determined legal opinions and facts

1. **Conclusion**

The evolution of AI technology is still in full swing and is certain to have a significant impact across various aspects of human life. While the field of judicial decision-making doesn’t seem off-limits to AI, such applications remain a double-edged sword, offering potential benefits alongside unpredictable risks. I can only stress the need for caution—utmost caution.