Legal Issues and Regulations in Artificial Intelligence

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What is AI

- “AI systems are information-processing technologies that integrate models and algorithms that produce a capacity to learn and to perform cognitive tasks leading to outcomes such as prediction and decision-making in material and virtual environments. AI systems are designed to operate with varying degrees of autonomy by means of knowledge modelling and representation and by exploiting data and calculating correlations. AI systems may include several methods, such as but not limited to: (i) machine learning, including deep learning and reinforcement learning; (ii) machine reasoning, including planning, scheduling, knowledge representation and reasoning, search, and optimization. AI systems can be used in cyber-physical systems, including the Internet of things, robotic systems, social robotics, and human-computer interfaces, which involve control, perception, the processing of data collected by sensors, and the operation of actuators in the environment in which AI systems work” UNESCO

What is AI

- There is no universally accepted definition of AI. It's use and deployment is contextual
- In case of legal applications , legal obligations, contractual commitments, and discussions that relate to AI should be understood and evaluated considering how they are employed in a particular situation.
- So when used in AI systems in law and justice we have to look at the context and meaning.
- As AI systems draw upon legal principles, case laws, precedents and rules under laws we have to understand how they work, what is their basis for decision making and outputs

Algorithm based Decision Making (ADM)

- ADM =outputs produced by algorithms to make decisions
- But ADM when left to systems including AI systems they become automated ADM with no human intervention
- The role of ADM in law and justice is a matter of debate and concern
- Human control over ADM necessary but should it be always be practised
- Can ADM be used for routine purposes, levying fines based on incontrovertible evidence and for dealing with minor offences without human control
- ADM is part of AI systems and hence understanding ADM is must for understanding and evaluating AI systems

AI Expert System

- First generation AI expert systems are widely used, for example, in planning and optimization systems. Expert systems such as tax processing software, customer service and technical support systems, medical diagnosis systems, and even natural language platforms, such as Amazon's Alexa, use expert systems. In the case of chat bots, this may be sets of rules that, based on specified keywords and the current state of the conversation, execute various responses to inquiries. Another example is a fraud alert method where an expert specifies that 'if the supplied administrative information has more than five inaccuracies,' the system should issue an alert indicating that this dossier should be investigated.

AI & Black Boxes

- Many AI tools are "black boxes,", i.e., highly complicated systems whose decision-making and reasoning are not easily understood by humans, and even by their developers. This can make it extremely difficult to detect flawed outputs, particularly in ML systems that discover patterns in the underlying data in an unsupervised manner.
- Term used to denote a technological system that is inherently opaque, whose inner workings or underlying logic are not properly comprehended, or whose outputs and effects cannot be explained.
- ADMs in recruitment and selection are an illustrative example of AI's black box decision-making. AI systems analyse the facial expressions and voices of job prospects. By doing this, they may perpetuate societal biases. These AI algorithms are often the intellectual property of private sector firms, and their operation and decision-making principles are kept confidential https://www.aaas.org/ai2/projects/law/judicialpapers

AI & Courts

- Technology Assisted Review & Discovery
- Automated Online Dispute Resolution
- Prediction of Litigation Outcomes
- Criminal Sentencing and Risk Assessment
- Automated Decision Support & Decision Making
- Automated E-filing Systems
- Allocation of Matters & Prioritizing

SC and Transcription

- https://indianexpress.com/article/explained/explained-law/ai-is-transcribing-sc-proceedings-how-is-it-happening-and-why-8458492/
- The SC transcription is using Teres, which is a platform used often for transcribing arbitration proceedings. The platform is run by Nomology Technology Private Limited, a Bengaluru based company.
- “If there are two or more voices at the same time that causes a little bit of a problem,” CJI Chandrachud said. “But they have personnel who will clean up the errors by the evening,” he added

SUPACE

- The Supreme Court of India has implemented an AI system, Supreme Court Portal for Assistance in Courts Efficiency (SUPACE) that will aid in the administration and delivery of justice through cataloguing huge numbers of earlier judicial decisions for better processing of case material, whether for comprehending the factual matrix of specific instances or conducting dynamic research into precedents. SUPACE will not be used in decision-making. The role of AI will be confined to data collecting and analysis.
- The SUPACE AI tool is being deployed on an experimental basis with judges in the Bombay and Delhi High Courts who handle criminal cases.

AI & Tech Revolution in Law

- AI is part of tech revolution in law and justice and is a key element
- As digitization in different forms is set to transform law and justice , there will be a paradigm shift in theory and pratice
- What's happening in India is part of this global trend.
- Pandemic in 2020-22 accelerated this in many ways such as online hearings, virtual courts, efiling and push towards digitization
- So many new products and services are on the anvil in India

Legal Tech Products

Product Landscape

Legal Service Delivery

Solutions that increase efficiency of service delivery to citizens, by legal service providers as well as judiciary

(29) Practice Management
(26) Research and Analytics
(25) Case Management
(01) Evidence Management
(01) Court Management

Process Efficiency

Solutions that impact existing practices and increase efficiency of everyday, usually time taking tasks

(58) Incorporation Management
(25) Compliance Management
(17) IP Management
(13) Contract Management
(09) Workflow Management
(03) Document Management
(01) Due Diligence Solutions

Access to Legal Recourse

Solutions that improve citizens' access to the justice system by means of network linkages, knowledge creation or dispute resolution

(48) Marketplace (Service provider)
(24) Knowledge Platform
(14) Online Dispute Resolution
(13) Marketplace (Documents)
(07) Succession Management

Do-It-Yourself (DIY) Tools

Tools that allow citizens to operate without intermediaries typically to meet compliance requirements

(11) e-Signing
(03) Document drafting
(03) e-Registration
(02) RTI filing
(01) Digital Signature

Digital Courts Vision & Roadmap

- “Intelligent Scheduling
- Co-ordinating the availability and schedules of different users: judges, lawyers and litigants is a critical part of the court administrative process. Leveraging technology to create an infrastructure that can optimise and coordinate their time, can unlock significant capacities for justice administration and overall bring greater efficiencies to the system. Over time, this will also increase reliability in the system by enabling all actors to manage their time better.
- Such a scheduling system must intelligently recommend (and not decide) appropriat e schedules by using AI”

- Digital Courts Vision & Roadmap
- Phase III of the eCourts Project

Overview

- In 2020 the then CJI S A Bobde formed a committee on AI
- This was followed by portal SUPACE Supreme Court Portal for Assistance in Court's Efficiency. The idea is to leverage machine learning to handle the huge amount of data received at the time of filing cases
- Current CJI D.Y. Chandrachud has stressed the need for better application of AI and its widespread impacts particularly providing greater access to justice
- Many legal-tech start ups are developing tools powered by AI
- So there is a consensus across stakeholders on deploying AI

Overview

- AI is increasingly used for legal research by law firms who use different data bases and software.
- Automating legal research by examining large volumes of legal data and extracting relevant information from them.
- AI-assisted software to automate the process of reviewing contracts and flag issues of concern. Use of software to automate the drafting of legal documents saves time, efforts and better use of human resources
- Use of e-discovery software to retrieve relevant information from volumes of documents

Overview

- Use of predictive analytics for data analysis and estimate probable outcomes. This can inform legal strategies and increase the chance of success.
- Proposals include AI-powered case management systems for automating routine tasks such as scheduling hearings and managing case files.
- eCommittee Supreme Court ofIndia’s Integrated Decision Support System (IDSS) and the Delhi High Court’sJudicial Case Analytics and Research System (JCAR) use AI and natural language processing to analyse case law and provide judges withr ecommendations based on previous judgments and legal precedents

Overview

- In Alternative dispute resolution (ADR) and online dispute resolution (ODR), AI has the potential to enhance efficiency . With the use of virtual assistants, data analytics, predictive analytics and Natural Language Processing software these can be effectively used. Care should be taken that the processes are fair and user friendly without compromising in legal standards.
- AI powered ADR and ODR can enhance their credibility

Bots & Chat Bots

- AI Powered chat bots, virtual assistants can enhance access by guiding and giving legal information to litigants and ease the interaction with judicial system. This will reduce the burden on courts and need to physically visit courts.
- Law firms also can use these to service clients and address queries, enable preliminary enquiries and direct clients
- Virtual assistants can be multi-lingual and help in filling up forms, guiding in choosing the right forum/court, assist in checking and filing forms.
- This is preliminary level service but can be of great help given the volumes and quantity of mundane tasks

Bail Bots

- Bail Bots are potential applications that can ease a routine task before judges & quicken the process of bail review & decision
- But AI based bots should be free of bias & should assist in decision making rather than system leaving decision to them
- A human in the loop is important so that bots have accurate information & process is fair, transparent and credible
- Reliable & comprehensive data is needed to make them work effectively
- Bail bots should be based on explainable AI than function as black boxes

Chat GPT

- Although not officially recognized Chat GPT was used by a Judge in Punjab & Haryana High Court to decide in a case but judgement was not written by Chat GPT
- Justice Pratibha Singh refused to rely on chatGPT responses

  “Accuracy and reliability of Al generated data is still in the grey area. There is no doubt in the mind of the Court that, at the present stage of technological development, Al cannot substitute either the human intelligence or the humane element in the adjudicatory process. At best the tool could be utilised for a preliminary understanding or for preliminary research and nothing more”

  https://www.verdictum.in/court-updates/high-courts/imitation-by-shoe-boutique-was-an-attempt-to-pass-off-its-own-goods-as-goods-of-christian-louboutin-says-delhi-hc-1491966

Generative AI

- Generative AI is AI that can produce texts,images, music, graphics etc without explicit instructions. It is evolving and is expected to become better, more creative and intelligent.
- On November 30, 2022, OpenAI released a chatbot called ChatGPT. It can absorb large volumes of information and use them to create new, original content. At present it needs a prompt from the user.

Generative AI

- LLMs are being built to be domain specific such as law, engineering. So companies like Harvey.AI, Alexy.com are working on developing legal applications with Generative AI
- It is expected that LLMs will evolve to ‘personal computer’ phase. Which means that LLMs and related tools can result in firms developing proprietary Generative AI systems.

Generative AI

- So generative AI will be far widespread that now and will be domain specific with multiple models available. Domain specific Generative AI will also result in development of host of related software.
- Example LLMs specific to law, prompt engineering that's applicable to law. Availability of LLMs coupled with GAI available as specific tools and software can revolutionalize pratice of Law

Issues

- Reliability – contents from GAI are not error free. When GAI misunderstands a question it results in output that is of dubious quality as it makes up answers with false data, non-existent case laws, unreliable data and results in hallucination.
- IPR issues – There are many unresolved issues ranging from authorship, appropriation and claims.

Issues

- Biases – LLMs may have inherent biases that are likely to be reflected in outputs
- Deep Fakes, False data and misleading content- all appearing to be true but false. Differentiating from human generated content is difficult. The proliferation of such contents can result in unanticipated harm.

Legal Applications

- Creating legal documents, such as contracts, briefs, and wills.
- Conducting legal research, by analyzing vast amounts of legal information and providing relevant summaries.
- Analyzing large data sets and making predictions about legal outcomes.

Generative AI and Role of Lawyer

- Generative AI can be co-pilot and co-contributor
- Surveys indicate that many lawyers and law firms feel the need for using Generative AI as otherwise they may become less competitive
- “He described a tool known as AutoGPT that effectively loops
- ChatGPT onto itself, allowing the bot to fulfill a request in stages,
- such as writing a 200-word blog post on how to choose a DUI lawyer.
- In the near future, Correia said, AutoGPT and similar tools may even
- be able to design and execute a marketing plan for a law firm.
- “But that’s next level,” he said. “And once you get to that point, you
- could automate a lot of what legal assistants are doing, you could
- automate a lot of what lawyers are doing, and you won’t have to
- constantly tell the AI what to do. Right now, you need somebody to
- feed prompts in on a consistent basis.”

Technology Driven Justice System

- GAI can enable judges to write judgments, do survey of literature, generate summaries and can even author judgements
- GAI can be applied in many functions which are now handled by humans and GAI can replace those doing mundane tasks or entry level jobs
- GAI can result in efficient use of resources, quicker decisions and better usage of capacity

But

- Question of Values
- Will judicial system be guided more by technical rationality than by human values
- Rule of Law by machines vs. Rule of law by humans
- GAI can result in new knowledge including concepts
- In science it has discovered new chemicals that were not discovered by humans, revealed structures of proteins
- Can such a thing happen in law and justice

GAI

- How do we treat and deal with GAI. Can GAI gain sentience or consciousness
- Can GAI replace judges partially if justice can be automated to some extent wherever possible
- What happens if GAI comes up judgements that were unanticipated by humans

Issues of Concern & for Reflection

- 1) Admissibility of AI generated evidence in Courts
- 2) AI and Constitutional Values
- 3) AI and Rule of Law
- 4) Justice and Generative AI

New Questions, New Answers

- Gen AI systems can enable those who lack access to use them effectively to make claims, draft pleadings and challenge fines
- DoNotPay- Challenging Parking Tickets, Producing Divorce Agreements – It is not a lawyer. But when it wanted to act as an advocate it was questioned & backtracked
- Will such bots and systems enable better access or should they be banned beyond a few applications

AI and Rule of Law

- Rule of Law –There are many definitions and approaches
- Accessibility to Law – Will AI make this more meaningful or constrain it
- DoNotPay- was challenged by lawyers who contended that it should not offer services which a lawyer does & should not enter into court cases involving hearing

AI and Rule of Law

- High Risk AI systems are to be registered in an EU database under the EU AI Act
- UK Law Commission recommended National Register of Algorithmic Systems in criminal justice system for checking and verification
- Proportionality vs. Built in bias in criminal systems . Punishment proportional to crime committed or potential vis a vis bias

HART

- The Harm Assessment Risk Tool (‘HART’) is used by Durham Constabulary in the United Kingdom. Using more than thirty characteristics that describe a person's criminal history and socioeconomic background, HART utilizes an ML algorithm to determine a suspect's probability of reoffending. The local police use the risk assessments completed by HART to decide whether to charge a person or divert them into a rehabilitation programme. HART does not decide whether a person is guilty or innocent, but its evaluation may start a series of actions that lead to a person being deprived of their freedom or being found guilty of a crime

Questions

- Who should be accountable for automated decisions and how should responsibility be fixed among the chain of actors when the final decision is facilitated by AI but decided by a human?
- What is a fair trial if the decisions have been facilitated by ADM? Can we develop criteria for fair trial if ADM is to be used
- Can we claim that accused is denied due process of law when AI systems are deployed at some stage of the criminal procedure. Can due process be facilitated by AI and be also fair?

AI and Rule of Law

- Citizens and Machines- What exactly is the contract among them.
- Human Agency vs Embodied Agency in AI
- Can AI enable flourishing of humans, affirming fundamental rights and rule of law
- Can AI work in harmony within legal system

Regulating AI

- How to define AI?
- Risk Regulation
- Do we need a global approach and institution to regulate AI?
- What can be Responsible AI?
- Should it be a technocratic approach or participatory one
- What is the role of Law in this
- Can we borrow from regulation of other emerging technologies
- Are there existential risks that mean that AI's development should be controlled if not constrained
- How to harness AI in the best possible way
- Is AI yet another emerging technology or unique

Global Institutions for AI Regulation

Table 1: A mapping of international institutional functions, governance objectives and models.

Function →	Science and Technology Research, Development and Diffusion				International Rulemaking and Enforcement			
Objective / institutions ↓	Conduct or Support AI Safety Research	Build Consensus on Opportunities and Risks	Develop Frontier AI	Distribute and Enable Access to AI	Set Safety Norms and Standards	Support Implementation of Standards	Monitor Compliance	Control Inputs
Spreading Beneficial Technology	No	Yes	Maybe	Yes	No	No	No	No
Harmonizing Regulation	No	No	No	No	Yes	Yes	No	No
Ensuring Safe Development and Use	Maybe	Yes	Maybe	Maybe	Yes	Yes	Maybe	Maybe
Managing Geopolitical Risk Factors	No	No	Maybe	Maybe	No	No	Yes	Yes
Existing Int'l Institutional Efforts		OECD, GPAI, G7, ITU			ISO/IEC			Semiconductor Export Controls
Possible Institution	*AI Safety Project*	*Commission on Frontier AI*	*Frontier AI Collaborative*		*Advanced AI Governance Agency*			
Key challenges	Model access; diverting talent	Politicization; scientific challenges	Managing dual-use technology; education, infrastructure and ecosystem obstacles		Incentivizing participation; quickly changing risk landscape; maintaining appropriate scope			

Global Institutions for AI Regulation

- A Global IAEA
- A Global AI Governance Agency
- “A diverse range of proposals for international institutions, including: a Commission on Frontier AI, an Advanced AI Governance Organization, a Frontier AI Collaborative, and an AI Safety Project; an International AI Organization (IAIO) to certify state jurisdictions for compliance with international AI oversight standards, to enable states to prohibit the imports of goods ‘whose supply chains embody AI from non-IAIO-certified jurisdictions’;proposal for an ‘International Consortium’ for evaluations of societal-scale risks from advanced AI, a ‘a Global Organization for High-Risk Artificial Intelligence (GOHAI)’, and many other proposals.

Global Institutions - Limitations

In case of emerging technologies we do not have a successful example of global regulation. But a convention that explicitly prohibits some applications and uses can work, particularly in Military AI.

Does the industry favor a global body or Convention – NO. So states alone cannot develop global regulation.

International treaty making process is a protracted affair and most global institutions are not agile except during crises.

A global institution can at best perform some rules in safety, standard setting but it cannot bring in harmonization nor can question sovereign power to regulate

Geopolitical and trade factors play a key role.

The current global milieu with US- China competition, Russia- Ukraine war and Conflict in Gaza make it difficult to build a consensus on another global institution

Current Scenario

- Comprehensive ACT- Europe
- Regulate through Orders- USA
- Regulate through Law and Orders-China
- In India draft regulations expected in June 24
- UNESCO’s Guidelines on AI ethics
- OECD Guidelines on AI
- Hiroshima AI Process – G7
- Others

Thanks