

FOR JUDICIAL OFFICERS

ADARSHA KHAREL

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ARTIFICIAL INTELLIGENCE

TRANSFORMING THE
LEGAL LANDSCAPE



Session Objectives

AI is reshaping crime and justice in India. This session covers what AI is, where it helps or fails in courts, key risks and misuse, and simple steps for data and cyber safety.

Understanding AI

Scope & Limits of AI

Identify Risks & Misuse

Data Protection & Cyber Safety





What is Artificial Intelligence?

Artificial Intelligence (AI) is the ability of machines to mimic human intelligence—such as learning, reasoning, problem-solving, and decision-making.

Examples: Google Translate, ChatGPT, Alexa

01 Learning

- Learns from data to find patterns
- Improves over time with feedback

02 Reasoning

- Weighs options to reach conclusions
- Handles if-then rules and complex choices

03 Perception & Action

- Understands text, images, and sound
- Takes actions like answering, recommending, or controlling devices







What can AI do?

AI is great at handling repetitive tasks with lots of data, working like a digital assistant that never gets tired or takes breaks.

01 Summarise documents

AI can quickly extract key points from documents, making it invaluable for judges, researchers and clerks.

02 Find case precedents

AI can help find case precedents by swiftly searching through vast legal databases to identify relevant past decisions, not only saving time but also ensuring that no critical information is overlooked.

03 Translate or Transcribe

AI can translate or transcribe audio and text, breaking down language barriers and making information accessible to a wider audience.

04 Analyse judgment trends

AI can analyze judgment trends and provide insights into how certain types of cases are likely to be decided based on historical data.

AI's Limits – What It Cannot Do

AI excels in many areas but cannot replicate human intuition, creativity, or emotional intelligence. It struggles with nuanced context, empathy, moral judgment, and appreciating art and culture.



**Cannot feel
empathy**

AI lacks true empathy. It can simulate responses but doesn't genuinely feel emotions, limiting its ability to offer human-like comfort.

**Works only on
data**

AI processes data to identify patterns and generate insights. Its effectiveness depends on data quality, which can impact accuracy if incomplete or biased.

May carry bias

AI can perpetuate biases if trained on biased data, impacting areas like hiring, law enforcement, and lending.

**No legal
accountability**

AI is devoid of human-like accountability, which raises significant ethical and legal issues, especially in crucial areas.

AI in India 2025

India is set to reshape industries and empower citizens through AI. As a global leader, it launches key initiatives like the IndiaAI Mission to boost indigenous AI and create jobs.



IndiaAI Mission

To build a comprehensive AI ecosystem by developing indigenous AI capabilities, promoting responsible AI use, and creating jobs. Budget: ₹10,371.92 crore over five years

AIKosh

A unified data platform that provides repository of datasets, models and use cases to enable AI innovation. Provides a sandbox to test tools in a controlled environment.

BharatGen

India's first indigenously developed, govt-funded Multimodal Large Language Model (LLM) initiative, tailored to India's diverse linguistic and cultural landscape.

Bhashini

BHASHINI aims to transcend language barriers, ensuring that every citizen can effortlessly access digital services in their own language.

Global Adoption and Responsible Use

AI is being adopted globally, but the final decision is in the hands of humans. As countries explore AI, the aim is to ensure it complements human expertise, fostering trust and encouraging culturally sensitive innovations.



60+ Countries

Lower and middle-income countries aim to bridge the digital divide and leverage AI's benefits. Over 60 countries have initiated national AI strategies, with the OECD curating more than 1,000 AI policy initiatives.

EU's AI Act

The first comprehensive European regulation on artificial intelligence, categorizing AI applications into three risk levels:

- Unacceptable risk
- High risk
- Low risk

AI for Small-Claims

Singapore is implementing a targeted, pilot-based approach to integrate AI into its Small Claims Tribunals, while China uses a broad, top-down "smart court" system that integrates AI extensively across its judiciary.

Robot Judge

Pilot programs and discussions in Estonia have explored using AI to draft decisions for minor small claims disputes, but all processes maintain essential human oversight and final judgment.

Creative Use Cases of AI

In gaming, AI creates vast worlds and realistic NPCs for immersive experiences. Education benefits from AI with personalized learning, while journalism uses it to analyze data and produce concise reports. As AI evolves, its creative applications will continue to grow.



Generative Art and Design

AI models such as DALL-E, MidJourney, and Adobe Firefly generate unique images and art from text prompts. Artists utilize these tools for inspiration, rapid prototyping, and innovative digital art creation.

Music Composition and Production

AI tools can create original music across genres, generate backing tracks, and assist with mixing and mastering. Platforms like AIVA, Suno, and Soundful provide instant, mood-specific music for content creators.

Video Game Development

AI makes game characters act more like real friends, quickly builds large game worlds, and helps test games better. By analyzing behavior, it adjusts difficulty, suggests strategies, and creates dynamic storylines.

Fashion Design and Trends

AI analyzes trends, predicts consumer demand, and generates garment designs and textile patterns, enabling designers to quickly iterate and accelerate product market launch.

Enterprise Use Cases of AI

Within the enterprise, AI is primarily used to automate processes, enhance decision-making, optimize operations, and create hyper-personalized customer experiences, leading to significant cost savings and improved efficiency.



Hyper-Personalized Experiences

Companies use AI to analyze customer data, allowing them to personalize recommendations, develop marketing and pricing strategies. This greatly improves engagement and increases sales.

Drug Discovery and Development

AI in the pharmaceutical industry analyzes vast amounts of data to find new drug candidates, optimizes clinical trials, improves manufacturing quality control, and helps create personalized treatments for patients.

Fraud Detection and Cybersecurity

AI systems monitor network traffic and transaction patterns in real-time to detect anomalies indicative of fraud or cyber threats, providing faster and more accurate responses than manual methods.

Supply Chain Optimization

AI analyzes complex logistics data to optimize routes, manage inventory levels, predict demand fluctuations, and mitigate risks, leading to more resilient and cost-effective supply chains.

Why AI Matters for Judiciary

HELPS MANAGE BACKLOGS

AI helps reduce judicial backlogs by automating routine case management tasks.

FASTER LEGAL RESEARCH

AI-powered tools can quickly analyze vast databases of laws, precedents, and judgments, helping legal professionals find relevant information in moments instead of hours.

EFFICIENT TRANSLATION & DOCUMENTATION

AI can translate legal documents and court records quickly and accurately, cutting delays and reducing manual errors.

Artificial intelligence significantly reduces the amount of time dedicated to monotonous and repetitive tasks, thereby greatly enhancing the overall efficiency of operations within the judicial system.



India's Judicial AI Journey

AI in India's courts now helps research (SUPACE), translation and access (SUVAS), and faster digital case flows.

Supreme Court Portal for
Assistance in Court
Efficiency (SUPACE)

National Judicial Data Grid
(NJDG)

Supreme Court Vidhik
Anuvaad Software
(SUVAS)

Digital Personal Data
Protection (DPDP) Act,
2023



How AI Can Support Judges

By thoughtfully incorporating AI into their workflow, judges can enhance their ability to administer justice while navigating the challenges and opportunities presented by this rapidly evolving technology.



DRAFTING OR SUMMARISING ORDERS

AI helps judges by quickly analyzing legal documents, saving time and effort. It highlights key points, suggests precedents, and drafts orders, aiding informed decisions and reducing errors.

ANALYSING CASE PATTERNS

AI aids judges by analyzing case patterns and trends, enhancing their understanding of previous rulings to inform current decisions and ensure consistency in justice.

FINDING RELEVANT JUDGMENTS

AI finds cited judgments and relevant case law quickly, ensuring judges access the most pertinent legal precedents. This speeds up research and makes the search efficient.

PREPARING STATISTICS

By leveraging AI, judges can access detailed reports and visualizations that highlight crucial data points, enabling them to make more informed decisions and identify areas for improvement within the judicial system.

Where is AI used in Law and Justice?

AI boosts judicial efficiency with e-filing, case management, and legal research tools. It enhances law enforcement via predictive policing and facial recognition and advances legal education through simulations.

COURT ADMINISTRATION

- e-Filing & automated cause lists
- AI translation (SUVAS)
- Tracking pendency (NJDG)

LAW ENFORCEMENT

- Predictive policing
- Traffic monitoring
- Facial recognition

JUDICIAL DECISION SUPPORT

- AI legal research (SCC Online, Manupatra)
- Summarisation tools
- Pattern analysis

LEGAL EDUCATION

- AI for law students
- Case simulations
- Virtual moot courts





AI Assists, Humans Decide

AI analyzes data and provides insights, but human interpretation is crucial for ethical and societal contexts. In justice, this means understanding case nuances and making fair, humane decisions.

Example: SUPACE

- AI Research Tool of the Supreme Court
- Provides summaries of facts and case law
- Minimizes the need for manual data searches
- Final decisions remain in human hands



**Should AI
ever
recommend
bail or
sentencing?**



THE DARK SIDE OF AI

With AI-generated content on the rise, distinguishing real from fake information is hard. Society must focus on strong verification tools and techniques. Public education on AI's pitfalls and media literacy is vital to combat misinformation.

- Deepfakes & fake evidence
- Bias & discrimination
- Legal and Ethical Concerns
- Overreliance on AI

DEEPFAKES

The ability to create highly realistic fake videos, voices, and images means that they could potentially be used to mislead courts or tarnish reputations. Therefore, there is a growing need for expert digital verification processes to ensure the authenticity of digital evidence presented in legal proceedings.



**Fake videos /
voices /images**

Can mislead courts

**Need expert digital
verification**

DEEPPFAKES



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DEEPPFAKES



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Error 153

Video player configuration error



BIAS IN AI SYSTEMS

Bias in AI stems from training data and processing algorithms, often mirroring societal prejudices and inequalities. This can result in unfair treatment of certain groups, such as facial recognition software misidentifying people of color more often than white individuals.



AI learns bias
from data

Less accurate for
some groups

Human correction
needed

LEGAL & ETHICAL CONCERNS

AI systems pose concerns about data privacy, transparency, and accountability. They can perpetuate biases from training data, leading to unfair outcomes. Rapid AI development often outpaces regulations, necessitating proactive measures for responsible use. Data ownership and compliance with protection laws are crucial, as is establishing liability for AI errors.

Data ownership

Liability for AI
errors

Need for ethical
oversight



OVERRELIANCE PROBLEM

Decisions based solely on AI recommendations risk missing nuances machines might overlook, resulting in blind errors. Balancing AI utility with human judgment and maintaining transparency and oversight is crucial to harness AI's potential while mitigating its limitations.



Blind trust =
blind error

AI lacks
transparency

Human oversight
vital

WHY CYBERSECURITY MATTERS

Cybersecurity measures are essential not only to preserve individual privacy but also to maintain the integrity of our legal systems, economic stability, and national security. By safeguarding data, we protect the very foundation upon which modern society builds its future.



Courts hold
sensitive data

Attacks disrupt
justice

Data = modern
power

INDIAN CYBER INCIDENTS

Even top systems face attacks — need strict protection. Cybersecurity is vital due to rising threats. Organizations must adopt strong measures like updates and training. Collaboration and awareness can enhance resilience and protection.



AIIMS data
breach (2022)

Govt websites
hacked (2023)

Judiciary now on
NIC Cloud

DIGITAL PERSONAL DATA PROTECTION ACT, 2023

Judicial institutions must ensure privacy and purpose limitation. They are responsible for handling personal data with care, ensuring it is used only for its intended purpose. This requires strong security measures to prevent unauthorized access and misuse.



Defines data &
consent

Right to correction
/ erasure

Duty to safeguard
personal data

CYBER HYGIENE TIPS



STRONG PASSWORDS

Strong passwords are crucial. Use a mix of letters, numbers, and symbols. Avoid common words and personal info. A password manager can help. Update passwords regularly and use two-factor authentication for added security.

AVOID PUBLIC WI-FI

Public Wi-Fi is often unsecured, allowing cybercriminals to intercept data. If you must use it, consider a VPN to encrypt your connection. Also, disable automatic connections and turn off sharing settings to reduce risk.

DON'T SHARE CREDENTIALS

Never share your credentials. Always verify requests by contacting the organization directly. Be cautious of phishing attempts and suspicious websites to protect your accounts.

VERIFY EMAILS

Think twice before clicking links or downloading attachments. Cybercriminals often mask malicious content as legitimate. Verify the sender's address, beware of urgency or threats, and use official contacts to confirm suspicious emails.

DO'S & DON'TS FOR DIGITAL SAFETY

DO'S

- Create complex passwords and avoid reusing them across different accounts.
- Enable two-factor authentication to add an extra layer of security to your accounts.
- Regularly install updates for your operating system and applications to patch security vulnerabilities.
- Adjust your privacy settings on social media and other platforms to control who sees your information.
- Regularly back up important personal data to an external drive or secure cloud service.
- Be cautious about the websites you visit and avoid clicking on links or pop-ups from unknown sources.
- Ensure your antivirus program is installed and kept up to date with the latest definitions.

DON'TS

- Avoid sharing your home address, phone number, or school name online.
- Never share your passwords, especially with people who ask for them through email or messages.
- Be wary of links and attachments in unsolicited emails or messages, as they can contain malware.
- Question information and verify facts with reliable sources, as fake news is widespread.
- Avoid performing online banking or shopping on public computers or unsecured Wi-Fi networks.



KEY TAKEAWAYS

AI serves as a tool rather than an authority. It enhances legal efficiency and accessibility, complementing but not substituting human judgment.

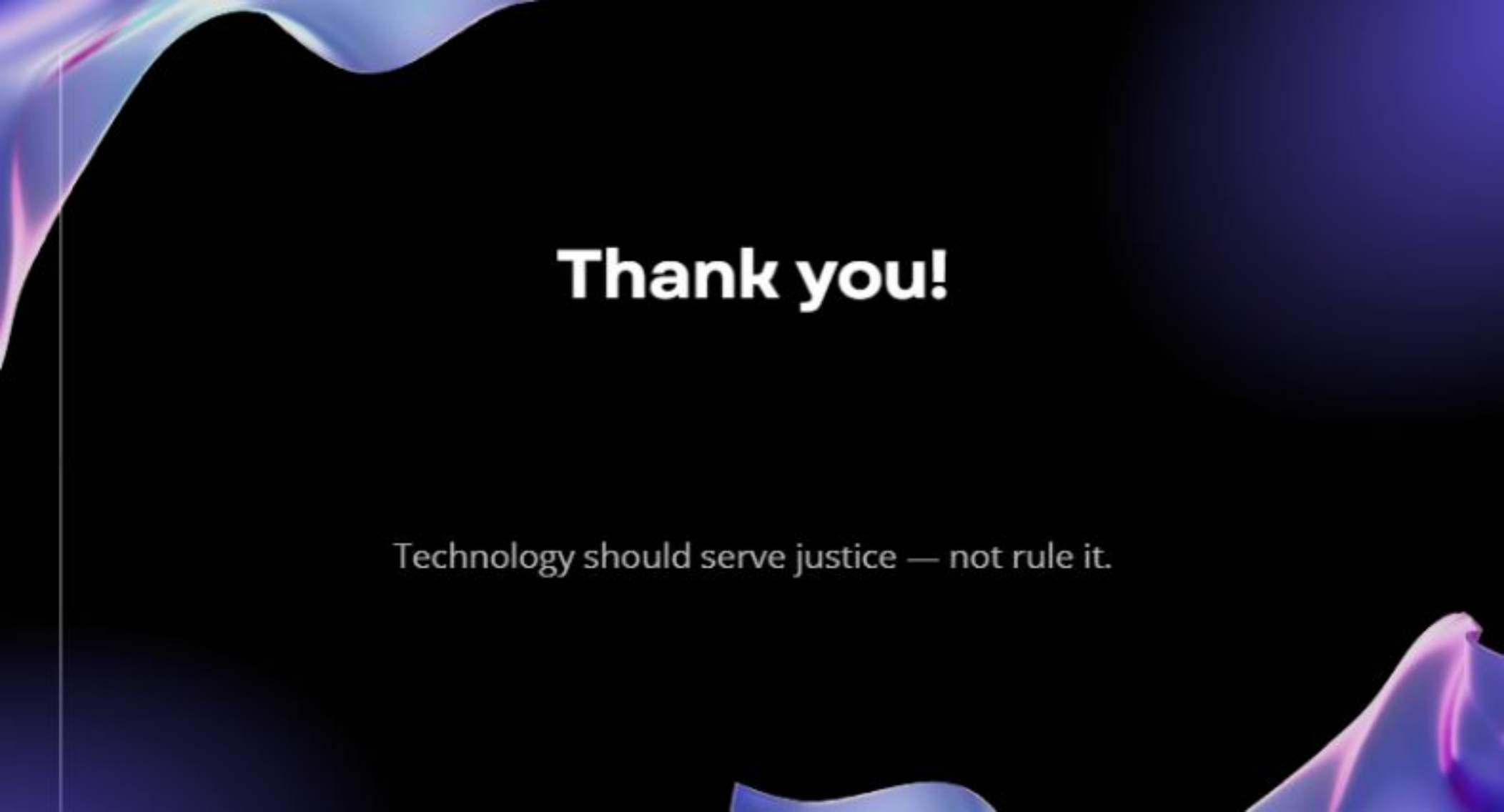
AI assists, not replaces

Protect data

Verify all outputs

Ethics above speed





Thank you!

Technology should serve justice — not rule it.