AI in Courts

Can Machine Learning Help Solve India's Judicial Backlog?

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May 2025, Volume 1, Issue 5, pp. 10–15.

Introduction: When Justice takes decades

"Had I known it would take more than two decades even to get bare minimum justice, I don't think I would have gone to court." These lyrics capture the anguish and heartbreak of Neelam Krishnamoorthy, who lost both of her children in the 1997 devastating fire at a Delhi movie theatre that killed 59 people. By that time, four of the 16 persons convicted had already passed away, and her tenacious pursuit of justice had lasted for twenty years. In the same way, a court in Firozabad sentenced a man aged 90 to life in prison in May 2023 over his role in the murder of ten Dalits in the village of Sadhupur. This crime was committed 42 years ago. He was the last surviving accused; others had already passed away during the long trial.

You might be wondering; how did these cases take years to get resolved? That's because these stories showcase a powerful example of India's judicial backlog- the massive pile-up of unresolved cases. In simpler terms, it refers to crores of pending cases that remain unresolved for years, often causing justice to be delayed or denied. These court delays are significant and go beyond just statistics. For a long time, someone decided to invest all their time and cash in a lengthy property case. Litigation is eating away at both the day-to-day activities of a small business and the trust its staff has in management. Every period they are detained means one day less outside. Over 5 crores cases are pending in Indian courts on this never-ending backlog, according to the National Judicial Data Grid.

There are many reasons for this, such as:

- Too few judges for our massive population,
- frequent adjournments that repeatedly postpone justice,
- painfully slow manual systems still reliant on paper,
- and many outdated documentation practices.

Such problems mean Ms. Krishnamoorthy must endure more pain and weaken the faith people have in the justice system. Left unanswered, justice still hurts, not as much as outright injustice, but the hurt is never quite gone. But is there a way to clear this massive backlog and speed up justice?

One promising answer lies in technology, specifically Machine learning (ML), which is a subset of Artificial Intelligence. Think about how Netflix recommends shows you might like based on your watch history, just like ML can suggest relevant case laws by learning from patterns in legal data. At its heart, machine learning is the process by which computers automatically learn from data patterns to make judgments or predictions. It's where ML can be utilised in the legal world, not by replacing humans, but by complementing them to work smarter and faster.

Where does Machine Learning come in?

1. Legal Research Assistance

Finding the right case law can feel like searching for a needle in a haystack. It takes a lot of time to comb through files, and even then, something crucial might slip through. ML-driven software can quickly scan through thousands of laws, judgments and statutes to identify relevant case laws and precedents. It could save the lawyers and judges hours of manual scrutiny and enable them to prepare quickly and make well-informed decisions sooner.

2. Case prioritisation and categorisation

Not all cases are extremely urgent, but our system would handle them all the same. ML can turn this around by analysing past data to figure out urgent matters, like cases involving senior citizens or personal liberty, and sort cases based on type and complexity. For example, a Bengaluru-based NGO, DAKSH works with courts to examine delays with the assistance of ML and data

analytics. Its findings help suggest reforms, showing how tech can guide courts to act faster and more fairly.

3. Summarising complex documents

Most legal documents are found to be lengthy and filled with complex jargon. Lawyers and judges spend hours- sometimes days- just reading them. ML tools, especially those using Natural Language Processing (NLP), can help summarise these texts, highlighting the key points. This can help lawyers, judges, and parties quickly grasp the essential details without reading the entire document.

4. Improving Public access and transparency

For most people, stepping into the legal system feels like falling into a maze. You file a case, and suddenly everything goes quiet and infrequent updates about your case are made. But imagine if courts had online systems that could show real-time updates, hearing dates, and how long a case might take. It could be like simply tracking where your online order is. This kind of access would help people from making endless calls or numerous visits to the courts, and could help them clear up confusion and provide accountability.

5. Automated Document Classification and Management

Courts process millions of legal documents- affidavits, petitions, judgments, and so on. Today, most of these documents get sorted manually, which becomes very cumbersome. ML can help in classifying these documents automatically, sorting them by content and relevance. This would minimise the time clerks and lawyers spend on manual filing and searching, and accelerate the case proceedings. A prime example is the Telangana High Court's e-filing 3.0 portal

for online submission of legal documents. This transition helps save paper and human error, setting the stage for ML tools to operate efficiently.

6. Transcription and translation

Courtrooms can be daunting, even more so when you're not familiar with the language used. In India's multilingual judicial system, this is an everyday challenge. ML models can be of help as they can be created for speech-to-text transcription of court proceedings. They could also help in the translation of judgments across languages, which could help in increasing accessibility.

ML in Action.

The good news is that we have already started along this route. A significant step toward inclusive justice is being made possible by the Supreme Court's SUVAS (Supreme Court Vidhik Anuvaad Software), a machine learning-powered translation technology that makes rulings available to individuals in their native tongue. This has made it possible for a farmer in

rural Maharashtra to read a Supreme Court ruling in Marathi rather than having to struggle with English. SUPACE (Supreme Court Portal for Assistance in Court Efficiency) is another such instrument. Established under the direction of former Chief Justice of India S.A. Bobde, SUPACE compiles pertinent laws and data and presents them in an understandable manner. Instead of making choices, it calculates information to help judges make decisions and reduce their effort.

ML might be impressive, but it can't do everything. It's very true- change isn't always easy. Even now, courts often stick to using paper for their records and resist trying other ways. Until we put these systems online, the best ML tools

cannot achieve much. Quality problems with data also cause big issues. Many documents from court cases are written by hand and very often incomplete, without any online records. Even advanced technology is troubled by gaps and messes in data. Hence, we would need to clean up the data if we want ML to assist us. A future-ready system can only be built when we have the speed and transparency needed for justice.

Conclusion

If we do not speed up, it will be 300 years before we remove all the problems waiting to be tackled. That means justice was delayed for 300 years- longer than India has been a nation. Rather than eliminating human judges, machine learning will allow judges to focus more on their job of meting out justice. Getting this right helps us work more quickly, gains the trust of the community and offers hope to individuals waiting for justice. This is a future that we have reason to pursue.

Technology is available for us. Things are happening so fast that change is necessary. Now we have to ask if we can act fast enough to keep the system as swift as justice calls for.