4 ways AI can enhance justice

Artificial intelligence and machine learning (AI/ML) can transform justice systems and improve service for everyone who deals with courts and the judiciary. But given the serious legal outcomes that AI/ML tools can influence, leaders should approach the technology with appropriate caution. If used responsibly, AI/ML — including generative AI (GenAI) — can promote four essential values in justice systems: timeliness, access, fairness, and effectiveness.

1 Timeliness

Paper documents have dominated justice systems for centuries, but by using Amazon Web Services (AWS) cloud infrastructure for AI/ML, judiciaries can digitize documents documents securely and reliably. AWS AI/ML services such as Amazon Textract, Amazon Comprehend, and Amazon Augmented AI enable intelligent document processing with classification, extraction, and processing of specific data elements from documents. Dashboards and summaries can also be created with fully managed GenAI services like Amazon Q in Quicksight and Amazon Bedrock.

Gretchen Peri, managing director with global professional services company Slalom, points to a compelling justice system use case for AI: domestic violence investigations. Incident reports include essential details about the victim, perpetrator, weapons, home environment, and other variables. AI/ML can comb through thousands of reports and help authorities quickly respond to high-risk cases.

"An attorney or prosecutor can view it very fast," says Peri, who has worked in the U.S. Departments of Justice, State, and Homeland Security. "Lots of good triaging functions can come from digitizing the data and processing it to drive insights."

By automating routine tasks, AI empowers court employees with more time to focus on critical aspects of their work, ultimately improving efficiency of the judicial system.

"AI/ML is designed to complement experts, not replace them," says De Ana Thompson, courts leader at AWS. "To understand both the potential pros and cons, start slow with a small project. Get comfortable with it and grow organically from there."

2 Access

Access to many justice systems is hindered by cumbersome logistics like conducting business during limited open hours or finding transportation for an in-person court appearance. Potential jurors wait hours for selection. People stand in long lines to pay fees.

These obstacles are unnecessary in the age of intelligent document processing. "The courts are still stuck in the paper process era," Peri says.

Appearing in court on time represents one of the biggest challenges for many defendants. With modern tools powered by AI/ML, courts can digitize paperwork and allow people to receive notifications about court dates on their phones and, in some situations, attend court via videoconference from anywhere.

"All of this drastically improves the appearance rate for involved parties, which allows for quicker case processing and less unproductive court time," Peri says.

3 Fairness

AI/ML tools can help justice system leaders gather intelligence to fight ingrained bias and drive more equitable outcomes.

Consider an everyday courts challenge: trying to predict a defendant's likelihood of showing up for their court dates. Risk assessments help judges decide who gets released on their own recognizance and who remains in custody.

"Those assessments are largely based on historical data," Thompson says. "We can use GenAI to identify bias in that data."

This happens by scanning thousands of documents and cases for evidence of unfair treatment. GenAI can identify patterns where individuals with otherwise similar circumstances or characteristics receive different treatment. From there, leaders can start finding ways to make decisions fairer. In short, GenAI can make existing processes more efficient and potentially less biased by providing judges a cohesive, concise picture of a defendant's criminal history.

Slalom and AWS are committed to developing AI responsibly and offering the tools, guidance, and resources that justice system leaders need to get started with new AI/ML technologies quickly. Services such as Amazon SageMaker Clarify, Amazon SageMaker Model Monitor, and ML governance with Amazon SageMaker give leaders a way to gather intelligence to address matters of equity.

Of course, all data must be used with discretion.

"Leaders must develop governance policies and guardrails to make sure that efforts to prevent bias don't actually perpetuate it," Peri says.

4 Effectiveness

There are many ways to make justice systems more efficient with technology; however, the heart of America's court system is to ensure justice is effective.

Can AI/ML help reduce recidivism, encourage rehabilitation, and lessen focus on segregation and punishment? Can it help boost the likelihood of success in monitoring arrangements? Many jurisdictions are setting up specialty courts for issues like drug crimes. Can AI/ML and automation drive better results in these arenas?

Peri says court systems already have a long way to go with using AI to increase efficiency, much less effectiveness. Getting the people,

processes, and technologies in place will require significant effort for years. But these difficulties should not discourage leaders from trying to measure the return on justice systems' investment of time, money, and intellect.

"There are many ways AI/ML can impact the judicial system," says Thompson. "While it's important to acknowledge the potential obstacles and concerns, those shouldn't be nonstarters."

Best Practices for AI Adoption

■ Always look for ways to use data and automation to track progress, improve decision-making, and streamline processes. Educate everyone on AI models' strengths and limitations.

■ Have humans review AI-generated output, especially when sensitive data is being used to make justice-related decisions. AI learning models can make errors or have hallucinations.

■ Don't stop evolving your use of AI. If you're just beginning with AI, launch a small proof-of-concept that has bottom-line impact. If you're further along, craft an enterprise AI strategy for your court environment.

■ Choose your technology partners carefully. Look for experts with local expertise and a deep understanding of your challenges and the people you serve.

Looking forward

If applied strategically, AI/ML can help deliver fairer justice. Make sure to develop use cases that serve your community while always keeping humans at the center of data-driven insights.

"Computers can make decisions, but they don't understand context or emotion," Peri says. "You need to ask, what is indispensably human about the work done by the justice system, and how do we retain that?"

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