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Over 40 researchers commit to AI project aimed at improving access to justice

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According to Nicolas Vermeys, the vice-director of the Cyberjustice Laboratory in Montreal, artificial intelligence (AI) is coming, and the legal profession needs to prepare.

"There's no way around it. So how do we make sure that companies or individuals who are developing AI applications for the legal system do so in a manner that will not jeopardize the pillars of our system? That it will not affect the principles of equality?" he asked, while explaining a newly launched research partnership centred around these very questions.

The Cyberjustice Laboratory launched an Autonomy through Cyberjustice Technologies (ACT) research partnership in June 2018 that brings together 45 researchers and 42 industry partners in a six-year project.

The ACT partnership is comprised of 16 subprojects all based on AI's impact on conflict prevention, conflict resolution and governance and policy. The project is being funded by a $2.5 million grant from the Social Sciences and Humanities Research Council of Canada (SSHRC) as well as $4.3 million in contributions from industry partners.

Nicolas Vermeys, vice-director of the Cyberjustice Laboratory

"We created the most important concentration of researchers really interested in artificial intelligence and law and the link between the two," said Vermeys, adding that the industry partners include such giants as Microsoft, the federal Department of Justice as well as the Civil Resolution Tribunal in British Columbia and the Condominium Authority Tribunal in Ontario.

"We tried to create this perfect melting pot of all the representatives from all the main actors in the field of law and AI and to launch a project around that," he added.

Vermeys explained that this project was the logical follow-up to research the University of Montreal has been doing for almost 30 years. He noted that the school threw its weight behind how technology could be used to improve access to justice in the 1990s and through that work developed the first online dispute resolution tool.

"Up until the mid-2000s, I would say 2002-2003, it was mostly seen as an alternative to the courts. So how technology could be used to go around the court system and try to give people other ways of accessing justice. And then we realized that instead of trying to go around the courts, what would be an extremely important thing to do would be to study how technology could be used by the courts to make our court system more efficient and the legal system more accessible in general," he said about the creation of the Cyberjustice Laboratory.

Over the years, the lab's focus has turned to developments in AI, specifically machine learning, and how it can be used to make the legal system more accessible, the vice-director noted.

Vermeys said every technology has the potential to make a positive impact or be destructive, depending on how it's used.

"On the one hand, AI can be used by all actors in the legal field, whether that be self-represented litigants, lawyers or judges, to basically get access to better information more quickly. That's the good side. A lawyer can complete his or her research by using tools that will, for example, tell them there have been 150 decisions in a similar field and the average result of these cases is the plaintiff will win $100,000," he said, explaining that algorithms can help lawyers inform their clients on the possible outcomes of a case.

"These are just statistics. The facts of your case will impact why the lawyer is still extremely important in analyzing and explaining what these numbers mean as every case is unique. But it does give you tools to better help guide your client," he added, noting that how AI is programed and the effect it can have on the legal system is the core of ACT's research.

Vermeys said the best example of how AI can have a negative impact exists in the United States through a piece of software called COMPAS (Correctional Offender Management Profiling for Alternative Sanctions.) COMPAS is used in American courtrooms to determine whether a defendant should be released prior to trial or if they should be kept in jail.

"Basically, the judge punches in information: sex, age, race, priors etc., and then the piece of software gives him an answer saying, 'this individual should be released on a $50,000 bail.' Or 'this individual should be released on $5,000 bail.' Or 'this individual is too dangerous for society and should be kept behind bars until the case, ' " explained Vermeys, adding that researchers have discovered that this particular tool "seems to be racist."

"I say 'seems to be' because they noticed that people who were black usually will get a harsher recommendation than people who are white. For the same crime, a white man will be released whereas a black man will be sent to jail until his final hearing," he said, noting that this could be caused by multiple factors.

Vermeys said that it's possible that whoever programmed the algorithm at the beginning was racist and therefore incorporated their bias into the platform, or they didn't understand what life is like for African-Americans, so that unintended bias was picked up by the bot.

"It could also be that the data that the algorithm is using has biases because it was chosen poorly. It could also be that the law itself is racist and therefore the tool is just applying case law the way it's intended to be. But the law has a bias against black people that will impact the solution. The problem is we know there's a specific outcome and that is black people are being treated in a more negative manner than white people. What we don't know is why," he said, stressing the importance of research into technology used in legal systems as it can have dire effects on segments of the population.

ACT's 16 subprojects cover ethics, best practices, security issues, tools for self-represented litigants, decision support tools for prosecuting authorities and the police, as well as decision tools for lawyers. Vermeys said that over the next few years the goal is to provide research to help develop tools that can be used by industry partners.

He stressed that anyone interested in taking part "should reach out to the Cyberjustice Laboratory" and get involved.