

Al and Dispute Resolution: How Artificial Intelligence Fits Into Dispute Resolution

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ncsc.org/jtc

Familiar uses of AI today

- FICO credit risk scoring
- Uber's "Destination Prediction"
- Facebook photo tagging
 - Immigrations and Customs Enforcement scanning state DL photo databases
- OCR capturing information and comprehending the content
 - Postal and package delivery
 - Redaction
- Cancer detection in radiological images

Potential use cases for courts

OCR

- Bots "reading" incoming e-filed documents and docketing them
- Natural language processing
 - Phone and chat-bot (text) customer service
 - Search/query with ranked results/hits
- Visual recognition
 - Identity management
 - Social media monitoring of parolees/felons
 - On the bench logging judges in to court systems.
- Symbolic Al
 - Risk/needs instruments
 - Legal Navigators
- Inferential AI (Machine learning)
 - Identifying "red flags" in guardianship/conservatorship cases
 - Triage criteria for automated case management
 - Mediation suggestions for ODR

Automated Docketing Palm Beach, Florida

- Initially checked 100% of bots' work
- Now checking 15% of all dockets (human & bot)
- One third of cases (68 case types) docketed automatically (12K/week)
- 22 FTEs repurposed

"The rise of AI decision-making ... implicates fundamental rights of fairness, accountability, and transparency."

- Introduction to Universal Guidelines for Artificial Intelligence

Implications of AI deserve serious consideration





Human "in the loop"	Human "on the loop"	Human "out of the loop"
No action taken without human	Action taken unless	Humans are not involved from
action/affirmation.	a human intervenes.	input data to action.
"Driver assist" or partial automation strategies implemented by Mercedes or Volvo for lane change warnings or parallel parking	Tesla autopilot design strategy SAE Level 3 or 4, which requires the driver to continually monitor the system and take action to prevent a dangerous condition.	Google Waymo design strategy defined as SAE Level 5, which prevents the human from taking any action associated with driving the vehicle.



Human "in the loop" No action taken without human action/affirmation. A messaging plugin mimics existing customer service question-response guidance. Or messaging software tags and filters user messages and suggests options that a human customer service representative chooses from to send a response to the customer.

Human "on the loop" Action taken unless a human intervenes. The system's experience creates new connections between questions and answers that were not previously interpreted to be related. Appropriate answers are delivered automatically; inappropriate answers can be prevented by a human overseeing the system's operation.

Human "out of the loop" Humans are not involved from input data to action. 3rd Generation Chatbots employ unsupervised machine learning in NLP routines that can automatically update language tags which define the effectiveness of the NLP being used. This type of chatbot is not in any broad commercial use as of 2020.

Universal Guidelines for Artificial Intelligence

23 October 2018 Brussels, Belgium

"...Modern data analysis produces significant outcomes that have real life consequences for people in employment, housing, credit, commerce, and criminal sentencing."

Courts are familiar with frameworks and standards

High Performance Courts Framework

- Administrative Principles define high performance. They indicate the kind of administrative processes judges and managers consider important and care about.
- Managerial Culture is the way judges and managers believe work gets done. Building a supportive culture is key to achieving high performance.
- Perspectives of a high performing court include: (a) Customer, (b) Internal Operating, (c) Innovation, and (d) Social Value.
- Performance Measurement builds on CourTools to provide a balanced assessment in areas covered by the Customer and Internal Operating Perspectives.
- 5. Performance Management concerns the Innovation Perspective and uses performance results to refine court practices on the basis of evidence-based innovations. It also fulfills the Social Value Perspective by communicating job performance to the public and policy makers.
- The Quality Cycle is a dynamic, iterative process that links the five preceding concepts into a chain of action supporting ever-improving performance.

International Framework for Court Excellence



Universal Guidelines for Artificial Intelligence

- Right to Transparency.
- Right to Human Determination.
- Identification Obligation.
- Fairness Obligation.
- Assessment and Accountability Obligation.
- Accuracy, Reliability, and Validity Obligations.
- Data Quality Obligation.
- Public Safety Obligation.
- Cybersecurity Obligation.
- Prohibition on Secret Profiling.
- Prohibition on Unitary Scoring.
- Termination Obligation.

The fine print...

- Right to Transparency. All individuals have the right to know the basis of an Al decision that concerns them. This includes access to the factors, the logic, and techniques that produced the outcome.
- **Right to Human Determination.** All individuals have the right to a final determination made by a person.
- Identification Obligation. The institution responsible for an AI system must be made known to the public.
- Fairness Obligation. Institutions must ensure that AI systems do not reflect unfair bias or make impermissible discriminatory decisions.
- Assessment and Accountability Obligation. An AI system should be deployed only after an adequate evaluation of its purpose and objectives, its benefits, as well as its risks. Institutions must be responsible for decisions made by an AI system.
- Accuracy, Reliability, and Validity Obligations. Institutions must ensure the accuracy, reliability, and validity of decisions.
- Data Quality Obligation. Institutions must establish data provenance, and assure quality and relevance for the data input into algorithms.
- Public Safety Obligation. Institutions must assess the public safety risks that arise from the deployment of Al systems that direct or control physical devices, and implement safety controls.
- **Cybersecurity Obligation.** Institutions must secure AI systems against cybersecurity threats.
- **Prohibition on Secret Profiling.** No institution shall establish or maintain a secret profiling system.
- Prohibition on Unitary Scoring. No national government shall establish or maintain a general-purpose score on its citizens or residents.
- Termination Obligation. An institution that has established an AI system has an affirmative obligation to terminate the system if human control of the system is no longer possible.

Charlevoix Common Vision for the Future of Artificial Intelligence

Endeavour to promote human-centric AI.

- Promote investment in research and development in AI that generates public trust.
- Support lifelong learning, education, training and reskilling, and exchange information on workforce development for AI skills.
- Support and involve women, underrepresented populations and marginalized individuals as creators, stakeholders, leaders and decision-makers.
- Facilitate multistakeholder dialogue.
- Support efforts to promote trust in the development and adoption of AI systems.
- Promote the use of AI applications.
- Promote active labour market policies, workforce development and reskilling programs.
- Encourage investment in AI technology and innovation.
- Encourage initiatives to improve digital security in Al.
- Ensure AI design and implementation respect and promote applicable frameworks for privacy and personal data protection.
- Support an open and fair market environment.

The fine print

- We, the Leaders of the G7, commit to:
- Endeavour to promote human-centric AI and commercial adoption of AI, and continue to advance appropriate technical, ethical and technologically neutral approaches by: safeguarding privacy including through the development of appropriate legal regimes; investing in cybersecurity, the appropriate enforcement of applicable privacy legislation and communication of enforcement decisions; informing individuals about existing national bodies of law, including in relation to how their personal data may be used by AI systems; promoting research and development by industry in safety, assurance, data quality, and data security; and exploring the use of other transformative technologies to protect personal privacy and transparency.
- Promote investment in research and development in AI that generates public trust in new technologies, and encourage industry to invest in developing and deploying AI that supports economic growth and women's economic empowerment while addressing issues related to accountability, assurance, liability, security, safety, gender and other biases and potential misuse.
- Support lifelong learning, education, training and reskilling, and exchange information on workforce development for AI skills, including apprenticeships, computer science and STEM (science, technology, engineering and mathematics) education, especially for women, girls and those at risk of being left behind.
- Support and involve women, underrepresented populations and marginalized individuals as creators, stakeholders, leaders and decision-makers at all stages of the development and implementation of AI applications.
- Facilitate multistakeholder dialogue on how to advance AI innovation to increase trust and adoption and to inform future policy discussions.
- Support efforts to promote trust in the development and adoption of AI systems with particular attention to countering harmful stereotypes and fostering gender equality. Foster initiatives that promote safety and transparency, and provide guidance on human intervention in AI decision-making processes.
- Promote the use of AI applications by companies, in particular small and medium-sized enterprises and companies from non-tech sectors.
- Promote active labour market policies, workforce development and reskilling programs to develop the skills needed for new jobs and for those at risk of being left out, including policies specifically targeting the needs of women and underrepresented populations in order to increase labour participation rates for those groups.
- Encourage investment in AI technology and innovation to create new opportunities for all people, especially to give greater support and options for unpaid caregivers, the majority of whom today are women.
- Encourage initiatives, including those led by industry, to improve digital security in AI and developing technologies, such as the Internet of Things and cloud services, as well as through the development of voluntary codes of conduct, standards or guidelines and the sharing of best practices.
- Ensure AI design and implementation respect and promote applicable frameworks for privacy and personal data protection.
- Support an open and fair market environment including the free flow of information, while respecting applicable frameworks for privacy and data protection for Al innovation by addressing discriminatory trade practices, such as forced technology transfer, unjustified data localization requirements and source code disclosure, and recognizing the need for effective protection and enforcement of intellectual property rights.

MONTRÉAL DECLARATION FOR A RESPONSIBLE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE 2018

- Well-being principle.
- Respect for autonomy.
- Protection of privacy and intimacy.
- Solidarity principle.
- Democratic participation principle.
- Equity principle.
- Diversity inclusion principle.
- Caution principle.
- Responsibility principle.
- Sustainable development principle.

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