

Ethics by design: Canada adopts AI ethics and data protection declaration

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OPINION 10 Dec 2018

Canada has added its voice to the global chorus of data protection and privacy commissioners calling for fairness, transparency and privacy by design as "core values" in the development of artificial intelligence by co-sponsoring the Declaration on Ethics and Data Protection in Artificial Intelligence.

The declaration was adopted by the 40th International Conference of Data Protection and Privacy Commissioners on Oct. 23.

The declaration, co-written by data protection and privacy commissioners from France, the European Union and Italy, was signed by the Office of the Federal Privacy Commissioner and its provincial counterpart from Quebec in addition to 12 other regulators from Argentina, Hong Kong, Mexico and the Philippines.

While lauding the significant benefits that AI systems could offer for users and society in general, the preamble to the declaration acknowledged that some data sets used to train machine learning-based and artificial intelligence systems have been found to contain inherent bias resulting in decisions that can unfairly discriminate against certain individuals or groups.

The preamble also noted that the decisions of AI systems decisions that cannot be explained also raise fundamental questions of accountability, not only for privacy and data protection law but also for liability in the event of errors and harm to individuals.

Given ongoing concerns about the possible malicious use of AI and related risks to privacy and data protection, the IDPPC felt it necessary to urge the adoption of international standards and created the declaration to endorse some key “guiding principles” as its core values to preserve human rights in the development of AI.

These six guiding principles include the following.

Fairness

All AI and machine-learning technologies should be designed, developed and used in accordance with the fairness principle - consistent with their original purpose and any data collected for use with such AI systems used in a way that is not incompatible with the original purpose of their collection.

AI systems should also be developed in a way that facilitates human development, rather than obstructing or endangering it and, if required, boundaries on certain uses may be required.

Continued attention and vigilance

There must be accountability for the potential effects and consequences of AI systems. Such accountability includes relevant stakeholders to individuals, supervisory authorities and other third parties as appropriate as well as the use of audits, continuous monitoring and impact assessments. The declaration stressed the need to invest in awareness raising, education and research on AI in order to better understand AI and its potential impacts on society and "demonstrable governance processes" for relevant actors, including trusted third parties and independent ethics committees.

AI systems transparency and intelligibility

The declaration called for improvements on AI systems' transparency through a variety of means, including investing in public and private scientific research on “explainable” artificial intelligence, making organizational practices more transparent (by promoting algorithmic transparency and the audit-ability of systems and the provision of meaningful information) and ensuring that individuals are always informed appropriately when they are interacting directly with an AI system or when they are providing personal information to be processed by such systems (informational self-determination).

Ethics by design

The declaration stressed that AI systems have to be designed and developed responsibly from the very start, applying the principles of privacy by default or privacy by design. Practically, this includes implementing adequate technical and organizational measures and procedures (proportionate to the type of system being designed or implemented) to ensure that data subjects' privacy and personal information are respected. Also, developers should be assessing and documenting the

expected or potential impact on individuals and society at large both at the beginning of any AI project and during the project's entire life-cycle and identifying specific requirements for fair and ethical use of such systems.

Empowerment of individuals

While the use of AI is to be encouraged, it should not occur at the expense of human rights or the rights of individuals. This includes respecting data protection or privacy rights - including rights to access, the right to object to processing and the right to erasure - and guaranteeing an individual's right not to be subject to a decision based solely on automated processing if the decision significantly impacts them. Regardless, individuals should always have the right to object or appeal and challenge decisions generated through the use of AI systems.

Unlawful biases or discrimination

The declaration expressly acknowledges concerns relating to unlawful bias or discrimination that may occur from the use of data in AI and such unintended results must be reduced and mitigated. Accordingly, developers should invest in research into technical ways to identify, address and mitigate bias, taking reasonable steps to ensure that the personal data or information used in automated decision-making is accurate, up to date and as complete as possible and providing specific guidance and principles in address bias and discrimination, promoting the awareness of individuals and stakeholders.

Recognizing that the declaration's guiding principles are necessarily pitched at a high level, the ICDPPC also called for the creation of common governance principles on AI to be established on an international basis - given the fact that the development of AI is cross-border activity that will impact everyone.

As part of the declaration, the ICDPPC, therefore, also established a permanent working group - the working group on ethics and data protection in AI - that is now tasked with creating additional guidance to accompany the principles articulated in the declaration.

The group intends to work with all relevant parties involved in the development of AI systems, including governments and public authorities, standardization bodies, AI systems designers, providers, researchers, companies and end users of such systems and will periodically report back to the ICDPPC on its activities.

While there is no doubt that the principles of the declaration are couched in lofty language, they represent a reaction to some very real concerns of individuals that in the rush to seize and capitalize upon the benefits afforded by the use of AI systems - including the ability to process large amounts of data, improving efficiencies and the development of deep-learning technologies - the ethical and human rights must not and cannot be left behind.

Given the landmark work conducted on ethics and AI in this country, spearheaded in Quebec (and further discussed in a prior column) Canada remains well positioned to continue to keep the issues of ethics and data protection at the forefront of AI development.

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