

Developing AI in a responsible way

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Credit: University of Montreal

Université de Montréal, in collaboration with the Fonds de recherche du Québec, today unveiled the Montréal Declaration for Responsible Development of Artificial Intelligence. This set of ethical guidelines for the development of artificial intelligence is the culmination of more than a year of work, research and consultations with citizens, experts, public

policymakers and industry stakeholders, civil society organizations, and professional orders.

Artificial intelligence (AI) is a major form of scientific and technological progress that can generate considerable social benefits. The [development](#) of AI, however, poses ethical challenges and social risks. It is incumbent on the various public and private stakeholders and policymakers, at the local, national and international levels, to ensure that the development and deployment of AI are compatible with the protection and fulfilment of fundamental human capacities and goals.

"Université de Montréal has been at the heart of many scientific breakthroughs in [artificial intelligence](#), and I am pleased that a vast network of researchers and leaders from the scientific, legal, economic and political spheres has now coalesced around the social and ethical challenges related to AI," said Université de Montréal rector Guy Breton. "I invite everyone with an interest in the subject to read the text of the Declaration and to sign it, so that their voice can be heard."

Yoshua Bengio, a member of the Montréal Responsible AI Declaration Steering Committee, added: "As a scientist, I feel a great responsibility to see to it that the outcomes of my research and of developments across the AI spectrum are used for the benefit of as many people as possible. By integrating social responsibility principles at the outset of technological development in university and industry laboratories, we can have a truly positive and concrete impact. That is the distinguishing feature of this Declaration: it incorporates the concerns of all stakeholders in the field and rallies all of civil society around sound principles."

Said Remi Quirion, Quebec's chief scientist: "In addition to supporting the development of scientific expertise in artificial intelligence, it became important for the Fonds de recherche du Québec to take into

account the ethical and societal aspects of progress in this field of research. With that in mind, I salute the work that led to the launch of the Montreal Declaration for Responsible Development of Artificial Intelligence, developed in collaboration with civil society. The new International Observatory on the Societal Impacts of Artificial Intelligence and Digital Technologies, announced yesterday, will most certainly be based on the principles contained in the Declaration."

10 principles

A key objective of the Declaration is to identify the ethical principles and values applicable to the fields of digital technology and AI that promote the fundamental interests of people and groups. These principles are:

1. **Well-being:** The development and use of artificial-intelligence systems (AIS) must permit the growth of the well-being of all sentient beings.
2. **Respect for autonomy:** AIS must be developed and used with respect for people's autonomy, and with the goal of increasing people's control over their lives and their surroundings.
3. **Protection of privacy and intimacy:** Privacy and intimacy must be protected from intrusion by AIS and by data-acquisition and archiving systems.
4. **Solidarity:** The development of AIS must be compatible with maintaining the bonds of solidarity among people and generations.
5. **Democratic participation:** AIS must meet intelligibility, justifiability and accessibility criteria, and must be subjected to democratic scrutiny, debate and control.
6. **Equity:** The development and use of AIS must contribute to the creation of a just and equitable society.
7. **Diversity inclusion:** The development and use of AIS must be

compatible with maintaining social and cultural diversity, and must not restrict the scope of lifestyle choices and personal experience.

8. Prudence: Every person involved in AIS development must exercise caution by anticipating, as far as possible, the potential adverse consequences of AIS use, and by taking appropriate measures to avoid them.
9. Responsibility: The development and use of AIS must not contribute to diminishing the responsibility of human beings when decisions must be made.
10. Sustainable development: The development and use of AIS must be carried out so as to ensure strong environmental sustainability of the planet.

8 recommendations

Based on these principles, recommendations have been developed for the purpose of suggesting guidelines for accomplishing the digital transition within the ethical framework of the Declaration.

1. Organization for independent citizen scrutiny and consultation: An organization dedicated to the examination of and research into the uses and social impacts of digital technology and AI should be established.
2. SIA audit and certification policy: A coherent policy for the auditing and certification of AIS that promotes responsible deployment should be instituted.
3. Empowerment and automation: There should be support for empowerment of citizens in the face of digital technologies, in the form of access to education that enables understanding, critical thinking, respect, and accountability, so as to promote active participation in a sustainable digital society.
4. Education and ethics: The education of stakeholders concerned

by the design, development and use of AIS should be rethought, with investment in multidisciplinary and ethics.

5. Inclusive development of AI: A coherent strategy should be implemented, utilizing the various existing institutional resources, to promote inclusive development of AI and prevent potential biases and discrimination related to development and deployment of AIS.
6. Protection of democracy: To safeguard democracy against the manipulation of information for political ends, a containment strategy is required to prevent deception and political manipulation of citizens via malicious social platforms and websites, along with a strategy to combat political profiling, so as to maintain the conditions for healthily functioning democratic institutions and informed citizens.
7. International development of AI: A non-predatory model of international development should be adopted that aims to include the various regions of the globe without abusing low- and middle-income countries (LMICs).
8. Environmental footprint: A public/private strategy should be implemented to ensure that development and deployment of AIS and other [digital technologies](#) are compatible with robust environmental sustainability and conducive to advancement of solutions to the environmental crisis.

More information: Where to sign: www.montrealdeclaration-responses.com/i-am-signing-up

Provided by University of Montreal

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