



Views of Canadians on Artificial Intelligence

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Executive Summary

1. Background and objectives

The [Public Awareness Working Group](#) was launched June 12th, 2020 as a working group of the [Government of Canada's Advisory Council on AI](#). With a mandate to examine avenues to boost public awareness and foster trust in AI, the group is undertaking a three-track plan of work:

- 1) Launch a national survey to capture and assess the feelings and interests of Canadians towards AI and AI systems;
- 2) Lead online deliberations in model established by the Montreal Declaration for the Responsible Development of AI; and
- 3) Produce a co-developed final report integrating the information gathered in parts one and two.

The culmination of this work will be presented to the AI Advisory Council in a final report that will provide evidence-based recommendations for sustained public awareness efforts undertaken by the Government of Canada moving forward.

The following report focuses on the findings of the pan-Canadian survey designed to capture and assess the feelings and interests of Canadians towards AI and AI systems.

The findings are based on the results of a 12-minute online survey, conducted by Nanos research, designed to be reflective of the Canadian population. The survey had three objectives:

- 1) Assessing AI Literacy – to understand familiarity with AI in Canada, including its use and impacts;
- 2) Identifying areas of 'hope' in relation to AI; and,
- 3) Identifying areas of 'fear' in relation to AI.

The intent of the latter two objectives was to build on areas with little consensus to develop case studies for the AI Deliberations (consultations) that followed this research. The AI Deliberations were conducted online and were open to all Canadians and Canadian residents, over 18 years, in April 2021.

2. Methodology

Nanos Research was retained by Innovation, Science and Economic Development Canada (ISED) to conduct a quantitative survey, reflective of the Canadian population. In this survey, 1,222 Canadians, 18 years of age or older, drawn from a non-probability panel, were surveyed between November 23rd to 24th, 2020.

The sample captured the demographics of gender (limited to male/female binary), age, and geography. The results were statistically weighted by age, gender and region using Statistics Canada Census information. In addition to age, gender, and geography, demographic information on education, income and ethnocultural identity was collected, however the responses were not achieved in sufficient numbers to impact the final results.

The survey achieved the following distributions:

Demographic Group	Actual Unweighted	Actual Weighted*
Men	597	588
Women	623	612
18-34 years	382	330
35-54 years	478	409
55+ years	362	463
Atlantic	124	80
Quebec	304	281
Ontario	370	461
Saskatchewan/Manitoba	120	81
Alberta	121	139
British Columbia	183	160
Total Population	1222	1202

* Results are weighted by age and gender to the 2016 Census data, and the sample is geographically stratified to ensure a distribution across all regions of Canada.

As an online survey is a non-probability sample, no margin of sampling error is reported. More information about the methodology for this survey is included in Appendix A. A full description of the sample distribution across all demographics (age, gender, geography, education, income, and ethnocultural identity) is also included in Appendix A.

3. Cost of research

The cost of this research was \$ 24,374.10 (HST included)

4. Key findings

The findings of this research can be summarized as follows:

Familiarity with AI and its capabilities

- In terms of self-reported AI literacy, almost three quarters of surveyed Canadians identified themselves as being familiar to somewhat familiar with AI.
- Canadians are two and a half times more likely to say they are familiar or somewhat familiar with AI than to say that they are somewhat not familiar or not familiar.
- Self-reported familiarity was highest amongst men, younger adults aged 18-34, and residents of Ontario.

- Canadians most frequently say they heard of AI through the news and internet, with only 4.9% and 4.6% of respondents reporting having heard of AI through school or work, respectively.
- On average, Canadians correctly distinguish whether a technology uses AI 4.2 out of six times.
- On average Canadians can correctly identify whether AI can perform a task for 7.0 out of 11 assessed capabilities.
- When asked to assess the current capabilities of AI, Canadians are—correctly so—least likely to think that AI can feel emotion and behave as humans do in social settings.
- Canadians most frequently rate the problem-solving capabilities of AI as very good or good, while rating its ability to make ethical decisions in a particular context as poor or very poor.
- Canadians most frequently think that their browsing history, web activity and Google data are being collected by AI, followed by personal information including age and face, as well as their shopping habits and purchase history.

Future impact of AI and views on its development

- Canadians are nearly seven times more likely to say that the impact of AI on Canada will be very positive rather than very negative, while they are four times more likely to say that the impact on themselves will be very positive rather than very negative.
- Residents of Saskatchewan and Manitoba, women and older Canadians give lower positivity ratings to the impact of AI on them personally in the next five years.
- Similarly, residents of Saskatchewan and Manitoba are also less likely to rate the impact of AI on Canada as positive compared with other respondents.
- A strong majority of Canadians say human involvement is required in a variety of aspects related to AI development.
- Nearly nine in ten Canadians think human involvement is important for AI enabled systems and that a computer's decision-making ability is limited by how they are programmed; indeed, more than two in three think that AI has the potential to cause harm to society.
- When asked to offer open-ended responses identifying a future use of AI, Canadians most frequently think AI will be used to assist in automated, repetitive work, followed by work conducted in the medical field, including diagnostics, and, finally, to assist in self driving vehicles.

Perception of the Impact of AI on life in Canada

- Canadians most frequently say they expect the impact of AI on all aspects of life in Canada will be positive. They are most likely to express concern about the impact of AI on law enforcement and labour.
- When asked to consider the impact of AI over the next five years, most Canadians expect AI will have a positive impact on the manufacturing, transportation and banking sectors. In contrast, few believe that AI will have a positive impact on arts and culture, or on law enforcement sectors.
- Again, looking to the next five years, Canadians most frequently express concern about the impact of AI on law enforcement and the labour force sectors, while most frequently indicating they are not concerned about the impact of AI on arts and culture, agriculture and manufacturing sectors.
- Across all sectors assessed in the survey, Canadians did not identify a single field in which the perceived future impact of AI would be overall negative.
- Canadians' attribution of the lowest positive score to the impact on arts and culture sector, combined with their lack of concern about a negative impact on this sector, poses an interesting dilemma that will be explored in the public deliberations following this research.

Future views on AI in Canada

- Canadians are most frequently hopeful that AI will make life easier and improve productivity and are most frequently concerned about AI causing job losses.
- Canadians most frequently say they are hopeful that AI will make life easier by improving productivity and reducing errors, followed by generating improvements in the medical field and health.
- Canadians are most concerned about job loss and AI replacing humans, followed by privacy, privacy security and hacking and losing control of the AI and malfunction.
- Canadians most frequently think governments and academic organizations should take the lead on developing AI solutions.
- Overwhelmingly, when prompted, respondents to the survey identified an interest in learning more about AI.

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