Statistics Canada

Statistique Canada

10th NIC.br Annual
Workshop on Survey Methodology
05 - 09 October 2020
From 10am to 12pm (GMT-3)
Webinar Format
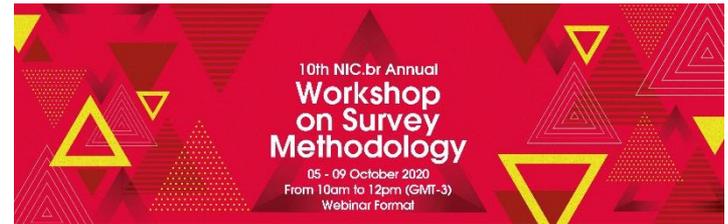
Measuring the adoption of Artificial Intelligence

Presented to Nic.br 10th Annual Workshop on Survey Methodology
**October 6th, 2020**

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Statistics Canada

Canada

The importance of AI measurement

"As a technologist, I see how AI and the fourth industrial revolution will impact every aspect of people's lives."

— Fei-Fei Li, Professor of Computer Science at Stanford University

- In Canada, as in many other countries, the introduction of AI and its impacts is just starting to be understood

- An important measurement to understand the capacity of the country to adopt, implement and take advantage of this technology
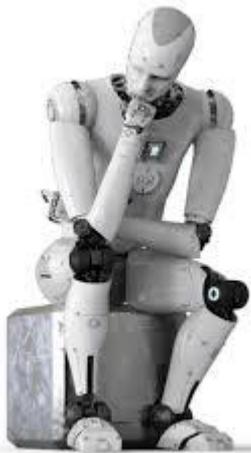
Measurement of AI at Statistics Canada

- Initially a simple yes/no question posed to enterprises on the **2017 Survey of Innovation and Business Strategy** – this was continued in the 2019 Survey

- A more extensive module was developed for inclusion on the 2019 Survey of Digital Technology and Internet Use

- An electronic questionnaire that is enterprise-based and covers nearly all industries with firms of more than 5 employees

Development of Module

- Module approach was chosen which ended up running counter to Eurostat decision

- Definitions used were adapted from those used by Eurostat and INSEE (France)

Artificial intelligence *(AI) refers to systems that display intelligent behaviour by analyzing their environment and taking actions - with some degree autonomy - to achieve specific goals. AI-based systems can be purely software-based or embedded in a device.*
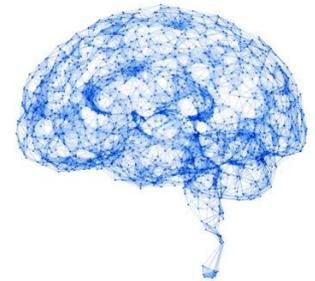
Data collection

- Module collects information on:
  1. **Proportion of enterprises using software or hardware with artificial intelligence** (AI)
  2. **Proportion of enterprises using AI, by type of technology** (machine learning, virtual agent, automatic speech recognition, face recognition systems and other image-analysis software, hardware with integrated artificial intelligence, decision management, and other)
  3. **Reasons for using AI, amongst user sample**
  4. **Reasons for not using AI, amongst non-user sample**

- A challenge to simplify this potentially complex subject matter

- Early integration of survey content will allow for measurement of uptake and identify industrial trends

Next steps

- Data will be released in **November 2020**

- Given the relatively new subject matter, AI-related questionnaire content is likely to change in future iterations as we incorporate lessons learned and account for changing technology, uses, and prevalence.

Links

Automation and Job Transformation in Canada: Who's at Risk?

- https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2020011-eng.htm

Survey of Digital Technology and Internet Use 2019

- https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=4225