

Equity Concerns in the Legal Regulation of AI in Canada

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Bias and Size

ARTICLE **OPEN ACCESS**



On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?

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• <https://doi.org/10.1145/3442188.3445922>

Data Sovereignty  Featured

OpenAI's Whisper is another case study in Colonisation



Keoni Mahelona, Gianna Leoni, Suzanne Duncan, Miles Thompson

Jan 24, 2023 • 20 min read

Labour & Access to Services and Care

BUSINESS • TECHNOLOGY

Exclusive: OpenAI Used Kenyan Workers on Less Than \$2 Per Hour to Make ChatGPT Less Toxic



This image was generated by OpenAI's image-generation software, Dall-E 2. The prompt was: "A seemingly endless view of African workers at desks in front of computer screens in a printmaking style." TIME does not typically use AI-generated art to illustrate its stories, but chose to in this instance in order to draw attention to the power of OpenAI's technology and shed light on the labor that makes it possible. Image generated by Dall-E 2/OpenAI

BY **BILLY PERRIGO**  JANUARY 18, 2023 7:00 AM EST

MOTHERBOARD
TECH BY VICE

Eating Disorder Helpline Fires Staff, Transitions to Chatbot After Unionization

The chatbot is named "Tessa" and will replace the entire Helpline program starting June 1.



By [Chloe Xiang](#)

Environmental Considerations

Unmasking the Dirty Secret of Large Language Models: Their Carbon Footprint

AI startup Hugging Face is taking a personal approach to measuring the carbon footprint of AI systems throughout their entire lifecycle, encouraging all of us to be more aware of their environmental impact.



Sab Severino · Follow

3 min read · Jul 17

NOT SO FAST —

The mounting human and environmental costs of generative AI

Op-ed: Planetary impacts, escalating financial costs, and labor exploitation all factor.

SASHA LUCCIONI - 4/12/2023, 4:00 AM

Model name	Number of parameters	Datacenter PUE	Carbon intensity of grid used	Power consumption	CO ₂ eq emissions	CO ₂ eq emissions × PUE
GPT-3	175B	1.1	429 gCO ₂ eq/kWh	1,287 MWh	502 tonnes	552 tonnes
Gopher	280B	1.08	330 gCO ₂ eq/kWh	1,066 MWh	352 tonnes	380 tonnes
OPT	175B	1.09 ^[2]	231 gCO ₂ eq/kWh	324 MWh	70 tonnes	76.3 tonnes ^[3]
BLOOM	176B	1.2	57 gCO ₂ eq/kWh	433 MWh	25 tonnes	30 tonnes

Sasha Luccioni, et al.

Table 4: Comparison of carbon emissions between BLOOM and similar LLMs. Numbers in *italics* have been inferred based on data provided in the papers describing the models.

Artificial Intelligence and Data Act (Bill C-27)

Definition of AI

“artificial intelligence system” means a technological system that, autonomously or partly autonomously, processes data related to human activities through the use of a genetic algorithm, a neural network, machine learning or another technique in order to generate content or make decisions, recommendations or predictions.

Section 2

Harm Mitigation

“A person who is responsible for a high-impact system must, in accordance with the regulations, establish measures to identify, assess and mitigate the risks of harm or biased output that could result from the use of the system.”

Section 8

See also sections 9-12

Harm

“harm” means

- (a) physical or psychological harm to an individual;
- (b) damage to an individual’s property; or
- (c) economic loss to an individual.

Section 5(1)

Biased Output

“biased output” means **content** that is generated, or a decision, recommendation or prediction that is made, by an artificial intelligence system and **that adversely differentiates, directly or indirectly and without justification, in relation to an individual on one or more of the prohibited grounds** of discrimination set out in section 3 of the *Canadian Human Rights Act*, or on a combination of such prohibited grounds.

It does not include content, or a decision, recommendation or prediction, the purpose and effect of which are to prevent disadvantages that are likely to be suffered by, or to eliminate or reduce disadvantages that are suffered by, any group of individuals when those disadvantages would be based on or related to the prohibited grounds.

Section 5(1)

High Impact System

“high-impact system” means an artificial intelligence system that meets the criteria for a high-impact system that are established in regulations.

Section 5(1)

Government Institutions Excluded

Non-application

3 (1) This Act does not apply with respect to a government institution as defined in section 3 of the *Privacy Act*.

Product, service or activity

(2) This Act does not apply with respect to a product, service or activity that is under the direction or control of

- (a) the Minister of National Defence;
- (b) the Director of the Canadian Security Intelligence Service;
- (c) the Chief of the Communications Security Establishment; or
- (d) any other person who is responsible for a federal or provincial department or agency and who is prescribed by regulation.

What's Next?

- Standing Committee on Industry and Technology
- Public consultation on future *Regulations*
- Research and advocacy focused on the impacts of AI in Canada
 - especially clarifying the kinds of harms that need to be mitigated under this framework

Thank you!