

2018 Statutory Review of the Copyright Act

Submission to the Standing Committee on Industry, Science and Technology

By:

Vector Institute

MaRS Centre, West Tower
661 University Ave., Suite 710
Toronto, ON M5G 1M1

Alberta Machine Intelligence Institute

1101, 10065 Jasper Ave NW
Edmonton, AB T5J 3B1

Montreal Institute for Learning Algorithms

2920 Chemin de la Tour, office 3353
Montreal, QC H3T 1J4

Quaid Morris, PhD

Professor, The Donnelly Centre
Departments of Molecular Genetics
and Computer Science
160 College St, Rm 616
Toronto ON, M5S 3E1

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Canada is poised to be a leader in the development and commercialization of artificial intelligence (AI). We have world renowned researchers and academic institutions who are at the leading edge of deep learning, machine learning and other forms of AI. Our excellence and leadership in the knowledge, creation, and use of AI has positioned Canada to achieve transformative economic growth, while improving the lives of Canadians.

Achieving this success will require a policy framework that supports AI activities. Fundamentally, this means policies that promote access to data and remove barriers to AI development and commercialization.

AI development requires sifting through, analyzing, and understanding a wide variety of materials, which enable computers to aid humans. Teaching a computer to safely drive a vehicle or diagnose an illness requires large data sets, tens of millions of photographs, articles, and other works that can be used to train software to interpret text, recognize patterns, and make predictions.

Copyright may be impacted by AI research because analyzing data to teach a computer often requires making an incidental technical copy of a lawfully acquired work. That incidental copy, shouldn't require additional permissions to enable its use for mere analytics, but often the ambiguity around copyright law is enough to dissuade researchers from making lawful analytical uses.

Many countries with the ambition of becoming world leaders in AI have or are taking steps to eliminate uncertainty about the copyright implications of AI development.

If Canada is to keep pace with these and other countries, it is necessary that the Copyright Act be amended to expressly allow for the reproduction of lawfully accessed works to facilitate information analysis. It is not an overstatement to predict that a failure to do so will have a chilling effect on AI development and commercialization in Canada – both because access to data required to perform research will be curtailed and because the best AI talent and investment capital will migrate to jurisdictions with more favourable laws.

Amending the Copyright Act will not undermine the interests of content owners. Once lawful access to a work is obtained, it should not matter for copyright purposes whether the work is read or viewed by an individual or by a computer. In both cases, the work is accessed to acquire information or insight that is not protected by copyright. Additionally, our proposed amendment will not impact on a content owner's capacity to control – and charge for – access to its work.

The signatories to this submission include Canada's leading AI-research and academic institutions and AI companies based in Canada. As with all Canadians, we have a direct stake in successfully

leveraging AI to achieve transformative economic growth, while improving lives across the country. We ask that the Committee adopt our recommendation so that copyright laws in Canada will enhance – rather than impede – our shared vision of making Canada a leader in the development and commercialization of AI.


Vector Institute, *PRESIDENT AND CEO* (GARTH GIBSON).



Alberta Machine Intelligence Institute

Valerie Pisano

Montreal Institute for Learning Algorithms

Quaid Morris

Quais Morris

Vector Institute

The Vector Institute is an independent, not-for-profit corporation dedicated to research in the field of artificial intelligence (AI), excelling in machine and deep learning. The Vector Institute launched in March 2017 with generous support from the Government of Canada, Government of Ontario, and private industry, and in partnership with the University of Toronto and other universities. The Vector Institute works with institutions, industry, start-ups, incubators and accelerators to advance AI research and drive its application, adoption and commercialization across Canada.

Alberta Machine Intelligence Institute

The Alberta Machine Intelligence Institute (Amii) is home to some of the world's top talent in machine intelligence. It is supported by the University of Alberta, Alberta Innovates, the Government of Alberta's Ministry of Economic Development and Trade, and the Government of Canada through the Pan-Canadian AI Strategy, administered by CIFAR.

Montreal Institute for Learning Algorithms (Mila)

Mila operates the machine learning laboratory at the University of Montreal. Researchers from Mila have pioneered the field of deep learning and deep neural networks (both discriminative and generative) and their applications to vision, speech and language. Mila is world-renowned for many breakthroughs in developing novel deep learning algorithms and applying them to various domains. They include neural language modelling, neural machine translation, object recognition, structured output generative modelling and neural speech recognition.

Quaid Morris, PhD

Professor at the Donnelly Centre Departments of Molecular Genetics and Computer Science