

REPORT on MENTAL HEALTH in the ERA OF ARTIFICIAL INTELLIGENCE

(full report available at www.mentalhealthinternational.ca)

SERIES OF RECAPS (8)

Pan-Canadian Strategy will tackle how artificial intelligence will re-shape society

Bill Wilkerson, LL.D. (Hon) was a former corporate chief and senior executive and a specialist in crisis management. His background ranges across business, government, politics, the arts, broadcasting, and major league sports.

Bill is MHI Executive Chairman and McMaster University Industry Professor of International Mental Health and in the mental health field, Wilkerson:

- *Co-Founded and led the Canadian-based Global Business and Economic Roundtable on Addiction and Mental Health (1998-2011).*
- *Chaired a business-led Pan-European campaign targeting depression in the workplace (2013-17).*
- *Founded and chaired a five-city (Washington, Ottawa, Boston, Toronto, Denver) US/Canada Forum on Mental Health and Productivity (2007-13).*

PORT HOPE, ONTARIO, CANADA (June, 2019)- The Canadian Institute for Advanced Research (CIFAR) has been commissioned by the Government of Canada to produce THE PAN-CANADIAN Strategy on Artificial Intelligence.

CIFAR, in fact, has played an historically significant role in AI research in Canada and around the world, enabling some of the fundamental breakthroughs in the field through its 'Learning in Machines & Brains program.'

In this light, CIFAR will explore the ways that AI will reshape our society and how we should respond. CIFAR Fellows are "studying the social underpinnings of wellbeing in numerous contexts, such as educational attainment, mental health and personal happiness."

Computers that are better at understanding and learning from the real world could revolutionize medicine, industry, transportation, natural resources, healthcare and the arts, oil and gas production.

According to CIFAR's Annual Report: "The result will be computers that are not only powerful but intelligent and that will be able to do everything from conducting a casual conversation to extracting meaning from databases of information."

Computers learning from the real world could revolutionize medicine, industry, transportation and our day-to-day lives and, in fact, CIFAR researchers are using deep learning to identify genetic contributors to conditions such as autism."

CIFAR CEO, Dr. Bernstein calls for steps to "combine AI thinking with new ways of medical diagnosis, new materials for energy harvest and storage and predicting the emergence and tracking of new viruses as the ZIKA and Ebola viruses. Last year, top academic researchers were named to AI Chairs as part of the \$125M Pan-Canadian

AI Strategy that will help maintain Canada's leadership in AI research.

Québec Leadership in AI

Québec's Chief Scientist, Dr. Rémi Quirion, in 2018, issued a "call for Proposals" that led to the creation of the International Observatory on the Societal Impacts of Artificial Intelligence bringing together universities, colleges, research centres, governments and non-government institutions, business and other groups across the world.

The Observatory examines "AI and digital issues of concern to all spheres of society, the impacts on individuals and organizations and communities." More than 16 researchers will join "this new scientific hub."

Leading this effort is Dr. Lyse Langlois, Director of Laval University Institute of Ethics and professor of industrial relations. Professor Langlois describes her mission this way: "We will work together to improve understanding, better inform the public and help decision-makers as they grapple with the huge challenges this fast-growing field poses in terms of employment, health, education, technology, security, democracy, justice and ethics."

The Vice-Rector of Research, Creation and Innovation at Laval, Dr. Eugene Brouillet, adds this: "The challenges of AI and digital technology know no borders and demand global study and decisive action.

The entire international research eco-system in this explosive new field have a role to play in the Observatory." McGill University in Montreal is also a partner in the Observatory and has assigned ten scientists to this work.

G7 Stakeholders in AI

A discussion paper was authored for the G7 Multi-Stakeholder Conference on Artificial Intelligence on December 6, 2018, spells out the need for “accountability in AI but there is no consensus among the broader community as to what an (accountability) toolkit would look like.”

The Paper – requested by the Government of Canada – says “as with any new technology, we are learning that deploying AI beyond the lab can result in harm to individuals and societies” – including discriminatory applications of AI, difficult-to-control behavior of deep learning systems and people “over-trusting AI and leading to physical and mental harms.”

Meanwhile, The MHI report we propose in this Report that a “**values, threat and mitigation**” process and protocol be developed for workplaces, specifically:

- ***‘AI Values Affirmation Principle’*** to establish and affirm the values that will guide implementation of AI;
- ***‘AI Threat Measurement Standard’*** – threats to these values;
- ***‘AI Mitigation Process’*** to do and undo what needs to be done and undone to mitigate these threats to the values guiding AI implementation.

The University of Montreal brought forward the “Montreal Declaration for Responsible Development of Artificial Development” with three core objectives:

- Develop an ethical framework for the development and roll-out;
- Guide the digital transition so everyone benefits;
- Open a national and international forum for discussion to achieve equitable and inclusive AI development.

A broad coalition of AI leaders have signed the 23 Asilomar AI Principles, the first of which says that, “the goal of AI research should be to create not undirected intelligence, but beneficial intelligence”.

The Future of Life Institute says this: “Profound societal impacts of AI are no longer a question of science fiction but are seen in many quarters from facial recognition technology to drone surveillance and the spread of targeted disinformation campaigns.

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