

BELIEVE THE IMPOSSIBLE

JUNE 13, 2022

In 1982, CIFAR introduced a disarmingly simple model and it has changed the world. From kickstarting the AI revolution, to realizing the importance of the early years to a child's life trajectory, to groundbreaking work on quantum computing, CIFAR makes an impact on science and humanity.

What we have achieved today would have seemed impossible forty years ago. And that is why we believe the impossible — we have challenged what is possible before, and we will do it again.

Thank you for joining us today as we convene brilliant minds to explore what is ahead of us.





Alan Bernstein OC, OOnt OPENING REMARKS President & CEO, CIFAR

Since 2012, Alan Bernstein has been responsible for developing and leading the institute's overall strategic direction.

He chairs or is a member of advisory and review boards throughout Canada, the US, Europe, the UK, and Australia, including the Scientific Advisory Committee of the Bill and Melinda Gates Foundation and Canada's COVID-19 Vaccine Task Force. He was appointed Chair of the Federal Variants of Concern, Scientific Advisory Council in 2021.

Alan's contributions to science and science policy have been recognized with numerous awards and honorary degrees, including Officer of the Order of Canada, the Order of Ontario, the McLaughlin Medal from the Royal Society of Canada, the Gairdner Foundation Wightman Award, induction into the Canadian Medical Hall of Fame, and the 2017 Henry Friesen International Prize in Health Research.



Naomi Azrieli PANEL MODERATOR Chair & CEO, Azrieli Foundation

Naomi Azrieli is Chair and CEO of the Azrieli Foundation. In this capacity since 2002, she has overseen the growth of the Foundation into the largest public foundation in Canada. She has been the strategic driver behind numerous initiatives, programs and partnerships, including the CIFAR Azrieli Global Scholars Program. She is also President of Canpro Investments Ltd., and is a Director on the Board of the Azrieli Group Ltd. Naomi holds a DPhil from the University of Oxford, a Masters from Columbia University and a BA from the University of Pennsylvania. She was awarded France's Legion of Honor (rank: Chevalier) in 2013 and received an honorary LLD from McGill University in 2018. She also serves on the boards of several national and international scientific, academic, and cultural institutions.



Kyunghyun Cho

PANELIST Fellow, Learning in Machines & Brains, CIFAR Former CIFAR Azrieli Global Scholar (New York University)

Kyunghyun Cho wants to build an intelligent machine that communicates with humans, actively seeks knowledge, and creates new knowledge. He and his collaborators have extensively investigated natural language processing and machine translation, advancing research and industrial production of better machine translation systems.

Recently, he has moved beyond human languages into coordinating emergent machine communications to help solve challenging problems, requiring multiple intelligent agents. He believes this communication will not only help machines to solve challenging problems themselves, but will allow them to help humans in expanding our horizon of knowledge.



Leah Cowen PANELIST

Program Co-Director, Fungal Kingdom: Threats & Opportunities, CIFAR (University of Toronto)

Leah Cowen is a Professor in the Department of Molecular Genetics, and the Vice President, Research and Innovation, and Strategic Initiatives at the University of Toronto. Her laboratory takes an interdisciplinary approach to understand what allows some microbes to exploit the host and cause disease, and to develop new strategies to treat life-threatening infectious disease. Leah is a co-founder and Chief Scientific Officer of Bright Angel Therapeutics, a company that leverages state-of-the-art technologies for development of novel antifungal therapeutics.



Ameet Morjaria

PANELIST CIFAR Azrieli Global Scholar, Innovation, Equity & The Future of Prosperity, CIFAR (Kellogg School of Management, Northwestern University)

Ameet Morjaria is an Associate Professor of Managerial Economics & Decision Sciences. His research interests are in economic development, organizational economics, and political economy across several countries in Sub-Saharan Africa (Burundi, DR Congo, Ethiopia, Kenya, Rwanda, South Sudan, Tanzania and Uganda). His current research topics are understanding market design issues in commodity exchanges, the impact of acquisitions on managers and management, quality upgrading and contracting issues in agriculture supply chains, the political economy of natural resource management and nation-building policies in imperfect democracies.





<u>Joelle Pineau</u> PANELIST

Advisor, Learning in Machines & Brains, CIFAR Canada CIFAR AI Chair (Mila, Meta, McGill University)

Joelle Pineau is an Associate Professor and William Dawson Scholar at the School of Computer Science at McGill University, where she co-directs the Reasoning and Learning Lab. Her research focuses on developing new models and algorithms for planning and learning in complex partiallyobservable domains. She also works on applying these algorithms to complex problems in robotics, health care, games and conversational agents. She serves on the editorial board of the Journal of Machine Learning Research and is Past-President of the International Machine Learning Society. She is a recipient of NSERC's E.W.R. Steacie Memorial Fellowship (2018) and a 2019 recipient of the Governor General's Innovation Awards.



Stephanie Simmons PANELIST

Fellow, Quantum Information Science, CIFAR (Simon Fraser University)

Stephanie Simmons is an Associate Professor, Canada Research Chair based out of the Department of Physics at Simon Fraser University, and is the Founder and Chief Quantum Officer of Photonic Inc. Her work on silicon quantum technologies was awarded a Physics World Top Ten Breakthrough of the Year of 2013 and again in 2015, and she is one of only five individuals to have ever won this award twice. Stephanie was named one of Canada's Top 40 Under 40 for 2020, and her work has been covered by The New York Times, CBC, BBC, Scientific American, the New Scientist, and many others.



Hon. Anne McLellan, PC, OC, AOE CLOSING REMARKS CIFAR Vice-Chair

Senior Advisor, Bennett Jones LLP

The Honourable A. Anne McLellan, PC, OC, AOE served four terms as the Liberal Member of Parliament for Edmonton Centre from October 25, 1993 – January 23, 2006. She served as Deputy Prime Minister of Canada and as the first Minister of Public Safety and Emergency Preparedness in the government of the Rt. Hon. Paul Martin. Anne served as Minister of Health, Minister of Justice and Attorney General of Canada, and Minister of Natural Resources. In May 2015, Anne became Dalhousie University's seventh chancellor, a position she held until May 31, 2020.

CIFAR ZOYEARS

CIFAR is a global research organization that convenes extraordinary minds to address the most important questions facing science and humanity.

We are supported by the governments of Canada, Alberta and Quebec, as well as foundations, individuals, corporations and Canadian and international partner organizations.



Connect with us to learn more about how you can help make the impossible possible.

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It's only impossible until it's not.

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