

THINK BIG

How the **social sciences** and **humanities** are building a better Canada











How we got here

Our world is changing fast. From climate change and human migration to artificial intelligence, the rise of populism and now pandemic recovery, huge global shifts require us all to have the right skills, knowledge and understanding to navigate an uncertain future.

At the top of the list are critical thinking and analytical skills; historical and cultural awareness; and the insights, discoveries and competencies acquired and shared through the social sciences and humanities. That's why today's businesses, governments and communities are turning to these disciplines for answers.

Not so long ago, in the years following the global recession of 2008, there was a sharp turn away from the humanities and social sciences toward other disciplines as students, families, government and industry sought and promoted what was seen as a more direct path between studies and jobs.

That is one reason why, in 2018, the Federation for the Humanities and Social Sciences — Canada's voice for thousands of scholars — launched an initiative to help communicate the value of research and education in these disciplines. This work included a review of available research, data and commentary, as well as consultations with Federation members.

This report highlights the findings and the vital resource the social sciences and humanities are for citizens, employers and society.

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Canada, we need to talk

In times of crisis, the humanities and social sciences inform and guide our response — raising awareness of the issues, analyzing options and helping shape public policy.

The COVID-19 pandemic and recovery — both social and economic — has tested us. Racism and inequality continue to hold us back as a society. And we share the urgent global challenges of climate change, the rise of populism, poverty and human migration. The humanities and social sciences can help us find our way.

Understandably, students and their families want to be reassured that their education will lead to secure employment and a rewarding career — and they can be. Research shows that following your passions in choosing your postsecondary studies does not have to entail a trade-off in career prospects. If students' interests lie in the social sciences and humanities — stretching from philosophy, sociology and economics to modern languages, history and political science — they and their parents can rest assured the jobs are there.

That's because today's employers are looking for grads with sophisticated communications skills; an ability to work with, understand and adapt to other

people; and critical-thinking, analytical and problem-solving abilities. These skills help businesses — including tech companies — grow and thrive. They're also the hallmarks of an education in the social sciences and humanities.

The value of the social sciences and humanities is not just about jobs and the workforce. These disciplines discover, preserve and mobilize knowledge about Canada and Canadians — including our history, languages and cultural heritage. They strengthen our democracy. And they address big challenges, including climate change, racial and social inequality, and reconciliation between Indigenous and non-Indigenous people.

From working to improve food security in the face of climate change, to providing ethics-based analysis on the risks of new and emerging technologies, researchers in these disciplines provide an integral contribution to the public, business and government decision-making that will help build a better Canada.

In short, Canada and the world urgently need the social sciences and humanities today and into the future.

Key findings

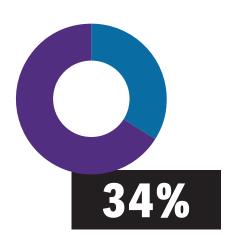
The Federation for the Humanities and Social Sciences' research review and consultations show that the social sciences and humanities:

- have a critical role in addressing major challenges facing Canada and the world, including climate change, reconciliation and the rapid advance of Artificial Intelligence (AI).
- equip grads with the highly developed human skills increasingly in demand by employers.
- provide students with virtually the same employment rates as those from other disciplines and, over time, similar incomes.
- promote the cultural understanding, historical knowledge and social awareness that support a healthy democracy.
- can, with the right resources, prepare more students for the changing labour market; strengthen democracy and social inclusion; and help mitigate the potential negative impacts of rapid technological change.

Building Canada's future

The social sciences and humanities make up more than one-third of postsecondary enrolments in Canada.¹

In 2019-2020, there were 735,096 postsecondary enrolments in humanities and social sciences programs in Canada. That accounts for 33.7 per cent of all PSE enrolments (including all degrees at colleges and universities).²





"We need the liberal arts to help make sense of our world — as we grapple with issues like climate change, with hatred and prejudice, with economic inequality, with runaway technological change — the humanities can give us the critical thinking skills and the perspective to deal with these issues."

SANTA ONO, PRESIDENT,
 THE UNIVERSITY OF BRITISH COLUMBIA

1 This figure includes all postsecondary enrolments in the following fields of study, which refer to the Cannabis primary groupings variant of the Classification of Instructional Programs (CIP) Canada 2016: personal improvement and leisure; education; visual and performing arts, and communications technologies; humanities; social and behavioural sciences; and law. If social sciences and humanities programs are defined in accordance with the list of fields identified by the Social Sciences and Humanities Research Council (SSHRC), which includes the above fields of study as well as "business, management and public administration," the social sciences and humanities make up 52.8 per cent of all postsecondary enrolments in Canada.

2 Statistics Canada. "Postsecondary enrolments, by field of study, registration status, program type, credential type and gender," https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3710001101.

3 Ono, Santa. 2019 Carr Lecture, Liberal Arts in the 21st Century: More Important than Ever.

Are we talking about the liberal arts?

Yes and no. For the most part, these disciplines are part of the liberal arts, but not all liberal arts are part of these disciplines. The liberal arts are a broader set of fields: humanities, social sciences, natural sciences and mathematics. Sometimes people refer to the liberal arts when they really mean the social sciences and humanities.

But what these terms have in common is more important than what separates them. They are built on a commitment to people — to deepening our knowledge of humanity and empowering people to grow and develop.

Scholars in the humanities and social sciences study how people think and feel. They study how we relate and communicate, how we organize and work, how we learn and express ourselves. They study what humans have done in the past that shapes the present and informs the future. These studies can help people build the communities they desire and live the lives they choose.

Vaccine rollout demonstrates racism is alive and well in Canada



Frances Henry, professor emerita at York University and co-author of *The Equity Myth*, a landmark study

on racism in Canadian universities, is one of Canada's top experts in the study of racism and anti-racism. Currently she is working to raise awareness around racialized and marginalized groups continuing to make up a disproportionate share of Canada's COVID-19 cases. For example, Dr. Henry points to Toronto postal codes and the rollout of COVID-19 vaccines as evidence that inequity persists in public health.

The gap between rich and poor



UBC's Thomas Lemieux, a leading economist and internationally renowned expert in labour economics,

studies the increasing gap between rich and poor. Dr. Lemieux's research into the causes of inequality helps inform policy responses so the benefits of growth can be more evenly distributed.

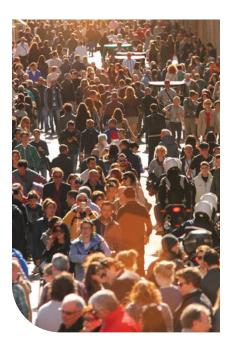
CHAPTER 1:

Meeting global challenges

Many of the most difficult problems we face as a society — including climate change, racial injustice and the spread of infectious diseases — are shaped by human behaviour and public policy. That's why their solutions require more than technical knowledge alone.

Whether social, economic, environmental or health-related, solving such problems calls for critical thinking, historical understanding, cultural literacy and creativity. It requires the skills and competencies cultivated through an education in the humanities and social sciences, and the insights and discoveries generated by research in these disciplines.

Researchers in these fields help inform public, business and government decisions that can reduce harmful emissions, advance green technologies and practices, and build social inclusion and equity.



"Today, our need for a broadly literate population is more urgent than ever.

As citizens, we need to absorb an ever-growing body of information and to assess the sources of that information. As workers, we need to adapt to an ever-accelerating rate of technological change and to reflect on the implications of these changes. As members of a global community, we need to look beyond our borders to communicate and interact with individuals from societies and cultures different from our own."

 AMERICAN ACADEMY OF ARTS AND SCIENCES' MAJOR 2013 REPORT, THE HEART OF THE MATTER

4 American Academy of Arts and Sciences. "The Heart of the Matter: The Humanities and Social Sciences for a vibrant, competitive, and secure nation," 2013, p. 18, https://www.aau.edu/sites/default/files/AAU%20Files/Key%20Issues/Humanities/Heart-of-the-Matter-The-Humanities-and-Social-Sciences-for-a-Vibrant-Competitive-and-Secure-Nation.pdf.

Addressing climate change

Turning the tide on climate change means changing behaviours. Political scientists, psychologists, sociologists, economists, geographers and others are helping us identify and implement solutions. For example, their research helps us understand as individuals how our actions affect the climate crisis, and how as a society we can support and incentivize the adoption of new behaviours.

Solutions to complex challenges like climate change are often found through multidisciplinary research, and that's a strength of the social sciences and humanities.

Carbon footprint of global elites is 14x bigger

Social scientists identify and analyze human behaviour that drives climate change. This includes insights into emissions according to income inequalities. Globally, research shows that "households with incomes in the top 10% are responsible for 36% of carbon emissions, while those in the bottom 50% are responsible for only 15% of emissions. The average annual carbon footprint of global elites is about 14 times that of the lowest income group."⁵



"Historically minded scientists and economists have been joined by ecologically minded historians. Under pressure of stories about the Anthropocene, long-term histories of land and water use have become increasingly precise in their accounts of where ecological stress has happened before, why, and how it has been overcome."

— HISTORIANS JO GULDI AND DAVID ARMITAGE IN THE HISTORY MANIFESTO

People, societies and the drive for oil

Petrocultures is a research group at the University of Alberta that observes, assesses and analyzes the many complex impacts of the oil industry on individuals, communities and society. Across multiple disciplines, researchers explore cultural and environmental issues, Indigenous interests and rights, politics and social-political life, and other pressing issues related to the oil industry.

Rethinking sustainable behaviours

While recycling and reusing household items are environmentally responsible actions, are we overlooking the big impacts that can be had by other behaviour modifications? A 2017 study by UBC environmental geographer Seth Wynes and co-author Kimberly A. Nicholas shows that some of the most impactful actions people can take include having fewer children, living car-free, reducing air travel and switching to a plant-based diet.⁷

Food security in face of climate change



Alison Blay-Palmer, professor of geography and environmental studies at Wilfrid Laurier University, and UNESCO Chair on Food, Biodiversity and

Sustainability Studies, leads a collaborative research partnership involving 20-plus disciplines that work to improve food system sustainability across Canada and globally. Initiatives include working with Indigenous and traditional communities to adapt to climate change and supporting sustainable urban food system innovations.

⁵ Jorgenson AK, Fiske S, Hubacek K, Li J, McGovern T, Rick T, Schor JB, Solecki W, York R, Zycherman A. Social science perspectives on drivers of and responses to global climate change. Wiley Interdiscip Rev Clim Change. 2019 https://onlinelibrary.wiley.com/doi/full/10.1002/wcc.554

⁶ Guldi, Jo, and Armitage, David. The History Manifesto. Cambridge: Cambridge University Press, 2014. p. 66

⁷ Wynes, Seth and Nicholas, Kimberly A. "The climate mitigation gap: education and government recommendations miss the most effective individual actions," 2017 Environ. Res. Lett. 12 074024

Supporting social and racial justice

To ensure that all people can prosper and contribute to society, we must confront past and present injustices. Knowledge from the humanities and social sciences is crucial to understanding the historical, structural and social forces that contribute to inequality, and to developing the most effective strategies for promoting equity, diversity, inclusion, and decolonization.

The income gap for members of racialized groups

Research in the humanities and social sciences shows that racialized women earn 59 cents for every dollar that non-racialized men earn, while racialized men earn 78 cents for every dollar earned by non-racialized men.⁸

At the intersection of autism and gender identity



York University Assistant Professor Jake Pyne works with people who are both autistic and transgender as co-researchers in order to strategize with them to improve

the institutional policies that impact their lives. Dr. Pyne completed his PhD in social work and gender studies at McMaster University, and his research has helped make change in Canadian policy and law that benefits trans people, including improved access to shelters, healthcare and justice.

Growing, supporting Black Studies



Afua Cooper is a trailblazer in Black Canadian studies. She was the driving force behind Dalhousie University's pioneering Black studies minor in 2016, which

was recently expanded to a major. Dr. Cooper founded the Black Canadian Studies Association. From 2011-2017, she held the James Robinson Johnston Chair in Black Canadian Studies at Dalhousie — the only endowed Black Studies Chair at a Canadian university. Her research expertise includes African Canadian culture.

Black women's history, gender, slavery and abolition. Dr. Cooper has conducted research on African-descended people and their culture across Canada and internationally.

Lost stories of Black trailblazers



Dr. Malinda S. Smith — a nationally recognized leader in equity, diversity and inclusion — is highly regarded for her contributions to an enhanced approach to equity policies and

practices in Canada, Currently vice-provost (equity, diversity and inclusion) and professor of political science at the University of Calgary, Dr. Smith's 2018 P.E. Trudeau Foundation Fellowship research has uncovered and shared the stories. of largely forgotten Black figures in Canadian politics, law and higher education. She is the coauthor of The Equity Myth (UBC Press 2017) and co-editor of the forthcoming book, *The Nuances* of Blackness in the Canadian Academy (UofT Press 2022). She also serves on Statistics Canada's **Expert Working Group on Black Communities** in Canada, its Immigration and Ethnocultural Statistics Advisory Committee, the Canada Research Chairs Advisory Committee on EDI Policy, and chaired the Federation's Congress Advisory Committee on Equity, Diversity, Inclusion, and Decolonization (AC-EDID).

Inclusive excellence

Our society and institutions have often operated in ways that are exclusionary, frequently shutting out or marginalizing diverse perspectives, methodologies and forms of knowledge. However, the concept of inclusive excellence points us in a better direction. As it relates to the social sciences and humanities, a recent report by the Congress Advisory Committee on EDID noted that "inclusive excellence affirms how diversity can deepen learning, enhance critical thinking and problem solving, and fuel creativity and innovation in teaching and learning, research and artistic enquiry, professional service, and community engagement."9

Supporting the vitality of the French language

According to a study by Acfas. postsecondary institutions and scholars "play a crucial role in supporting the vitality of the French language in Canada." Canada's universities and colleges help develop future leaders of Francophone communities; support French-language art, literature and theatre; partner with hospitals and community centres to provide access to public services in French; train French-speaking teachers: and empower students to continue mastering the French language after they graduate from high school immersion programs.10

Advancing reconciliation between Indigenous and non-Indigenous peoples

The humanities and social sciences have an important role — and responsibility — in supporting decolonization and reconciliation between Indigenous and non-Indigenous people. Through research and teaching, scholars can support the process of truth telling, atonement and positive change that needs to occur in the education system, government and society at large.

"We call upon the federal government, through the Social Sciences and Humanities Research Council, and in collaboration with Aboriginal peoples, post-secondary institutions and educators, and the National Centre for Truth and Reconciliation and its partner institutions, to establish a national research program with multi-year funding to advance understanding of reconciliation."11

- TRUTH AND RECONCILIATION COMMISSION OF CANADA

"The Government's current emphasis on 'hard' sciences diminishes the prominence of social sciences, which are an Inuit research priority."12

- INUIT TAPIRIIT KANATAMI (ITK)

"The benefits of research extend beyond addressing the legacy of residential schools." Research on the reconciliation process can inform how Canadian society can mitigate intercultural conflicts, strengthen civic trust, and build social capacity and practical skills for long-term reconciliation."13

- TRUTH AND RECONCILIATION COMMISSION OF CANADA

Uncovering truth, driving change



After earning her doctorate in philosophy from the University of Manitoba, Karine Duhamel, an Anishinaabe-Métis educator and

researcher, developed and taught courses on the legacy of residential schools at the University of Winnipeg. More recently, she served as director of research for the National Inquiry into Missing and Murdered Indigenous Women and Girls. In addition to drafting the inquiry's final report released in 2019, Dr. Duhamel managed the Forensic Document Review Project and Legacy Archive. She now works with groups across Canada to raise awareness of Indigenous histories and related societal issues.

Indigenous healing



James Waldram of the University of Saskatchewan is an internationally renowned medical anthropologist whose research shows

that traditional Indigenous healing knowledge and practices are valuable in addressing health and well-being issues in contemporary society. He approaches his work through the lens of culture and his research reminds non-Indigenous people that therapeutic encounters are cultural events.

⁸ Block, Sheila Galabuzi; Grace-Edward; and Tranja, Ricardo. "Canada's Colour Coded Income Inequality," 9 Dec. 2019, https://www.policyalternatives.ca/publications/reports/canadas-colour-coded-income-inequality." 9 Smith, Malinda S. et al., "Igniting Change: Final Report and Recommendations," March 8, 2021, p. 8, www.federationhss.ca/en/programs-policy/edid/igniting-change.

¹⁰ Acfas. "Recherche et enseignement supérieur: Leaders du rapprochement des francophonies canadiennes," February 2021, p. 6, https://www.acfas.ca/sites/default/files/documents_utiles/acfas memoire recherche francophonie 2021.pdf.

¹¹ Truth and Reconciliation Commission of Canada: Calls to Action, recommendation number 65 http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf, 2015.

¹² Inuit Tapiriit Kanatami (ITK). "National Inuit Strategy on Research," 2018. p. 4.

¹³ Truth and Reconciliation Commission of Canada. Canada's Residential Schools: Reconciliation: The Final Report of the Truth and Reconciliation Commission of Canada. Montreal & Kingston: McGill-Queen's University Press, 2015, p. 128.

Social sciences and genomics

GE³LS stands for Genomics and its Ethical, Environmental, Economic, Legal and Social Aspects — and it's something Genome Canada takes very seriously. The organization mandates the integration of GE³LS into all its projects, with a special focus on questions at the intersection of genomics and society. For example, funded projects may look at the economics of how a new technology will be integrated into existing systems, or the ethics around new medical treatments.

The future of Al

Today's Al performs Narrow Al. In the future, computers will be able to perform more of the tasks currently limited to humans, such as "reasoning, learning, and complex problem solving." Computers may even surpass human capabilities in some of these areas. The humanities and social sciences provide muchneeded ethics-based analysis and advice to help guide the development of Al and to mitigate potentially negative consequences.



Dealing with new and emerging technologies

Emerging technologies such as artificial intelligence (AI) and gene therapies create new opportunities to improve lives, but they also introduce significant risks that need to be carefully managed.

Fortunately, a wide array of scholars from the social sciences and humanities are helping address the societal implications of technology. Their research deals with issues of security, equality, ethics, privacy and the protection of potentially vulnerable groups. They help our society prepare for and respond to the often unknown and unintended consequences of our technological creations.

Committing to socially responsible AI development

In late fall 2017, a Montreal forum brought together 400 participants to discuss cybersecurity, legal liability, moral psychology, the labour market, healthcare and smart cities. The Forum on the Socially Responsible Development of Artificial Intelligence wrapped by launching a process to explore social issues arising from the advance of AI, develop a commitment to socially responsible AI development and encourage its widespread adoption. The Montreal Declaration for Responsible Development of Artificial Intelligence, now boasting 2,000 signatories in Canada and around the world, aims to ensure everyone benefits from the technological revolution.

New tech, timeless art



After studying video game 3D animation, Patricia Bérubé decided to enrol in the art history master's program at

the Université de Montréal. With a passion for digital museology, she's now working on a device to let people read the colours in paintings by touch, ensuring the major artworks of the world are accessible to those with visual impairments. She is currently pursuing a PhD in cultural mediations at Carleton University.

"As computers behave more like humans, the social sciences and humanities will become even more important. Languages, art, history, economics, ethics, philosophy, psychology and human development courses can teach critical, philosophical and ethics-based skills that will be instrumental in the development and management of AI solutions." ¹⁵

- MICROSOFT PRESIDENT BRAD SMITH

¹⁴ Malli, Nisa; Jacobs, Melinda; and Villeneuve, Sarah. "Intro to AI for Policymakers: Understanding the Shift" (Brookfield Institute for Innovation and Entrepreneurship. 2018). p. 4.

¹⁵ Smith, Brad, and Shum, Harry. The Future Computed. Microsoft, 2018. p. 19

¹⁶ Spurr, Ben. "How a Toronto researcher is helping to identify those who attacked U.S. Capitol," in Toronto Star, Jan. 10, 2021. https://www.thestar.com/news/world/2021/01/10/how-a-toronto-researcher-is-helping-to-identify-those-who-attacked-us-capitol.html

CHAPTER 2:

Strengthening democracy

Research shows that an education in the social sciences and humanities is linked to engaged citizenship, democratic values and public leadership.

The long-term well-being of Canadians depends on our ability to maintain a cohesive society supported by a healthy democracy. That means ensuring that people with different backgrounds and beliefs are able to contribute to society and achieve their potential in their work, political and personal lives.

Researchers in the humanities and social sciences ask big, challenging questions about society and offer a critical perspective on major social issues. In doing so, they help amplify diverse voices and concerns, inform effective public policies and build healthier communities.

Research and analysis in these disciplines also help identify, track and address online disinformation that aims to influence election outcomes.

Indigenous experiences with online voting



Chelsea Gabel, Canada Research Chair in Indigenous Well-Being, Community Engagement and Innovation at McMaster University, leads the First Nations

Digital Democracy Project: a communityengaged research partnership studying how digital technologies impact participation and governance in First Nations communities. Research published in the 2021 report, Indigenous Experiences with Online Voting, informs policy recommendations that will help guide the support of online voting use for First Nations elections and votes.

Strength in diversity



Alain-G. Gagnon, Canada Research Chair in Quebec and Canadian Studies at l'Université du Québec à Montréal studies how complex democratic societies

manage diversity. Dr. Gagnon's work will help establish policies and practices that promote tolerance and cohesion in diverse societies.

Critiquing citizen and consumer surveillance



Queen's University Sociology Professor David Lyon researches the social sorting capacities of contemporary surveillance, along with an exploration of

their ethics and politics. Dr. Lyon examines many forms of surveillance including the ubiquitous smartphone, the key device of rapidly globalizing surveillance capitalism.

Reintegrating former child soldiers



McGill University Professor Myriam Denov studies children and youth in adversity, in particular those involved in war and political violence.

Dr. Denov has presented expert evidence in court cases involving child soldiers and advises governments and nongovernmental organizations on children in armed conflict, including girls involved with armed groups.

Digital sleuthing

The Citizen Lab at the Munk School of Global Affairs & Public Policy, University of Toronto, connects researchers in political science, law, computer science and other disciplines to investigate digital espionage; analyze privacy, security, and information controls of popular applications; and examine the relationship between industry and government agencies regarding personal data and surveillance activities. Recently, Citizen Lab has turned its sights to the coronavirus, including research efforts that prompted Zoom to fix a security glitch, and uncovered the censorship of coronavirus-related social media content in China. As well, John Scott-Railton, a senior researcher at the Citizen Lab, helped identify suspects in the January 6, 2021 insurrection at the U.S. Capitol.¹⁶

COVID-19 and misinformation

As the challenges presented by COVID-19 continue, social science and humanities researchers are investigating the nature of misinformation and conspiracy theories, methods of transmitting false information, and the impact of fake news on our behaviours and psychological well-being.

A multidisciplinary team from the Université de Sherbrooke,¹⁷ with international partners, has analyzed responses to COVID-19 related information from a broad range of sources and platforms. Their survey results show that at least one in 10 people in Canada believed some sort of conspiracy about the cause of the current pandemic.

38.4%

believed that their government is hiding important information about COVID-19 15.0%

believed that the pharmaceutical industry is involved in spreading COVID-19 **52.7%**

of respondents were aware that they had been exposed to news about COVID-19 that proved to be false

"When people meet to make important decisions, political or otherwise, they depend, directly or indirectly, on humanities research. Much of what they discuss will involve matters that have been studied by humanities scholars and researchers over the centuries – such as right and wrong, justice, (religious) values, historical developments or demography." ¹⁸

- THE HUMANITIES IN NORWAY

- "...knowing the world is not just important to the survival of democracy, it is important to the survival of humanity." ¹⁹
- AZAR NAFISI, IRANIAN-AMERICAN WRITER AND PROFESSOR OF ENGLISH LITERATURE

Canada's digital media ecosystem and the 2019 election

The Digital Democracy Project, a ioint initiative of the Max Bell School of Public Policy at McGill University and the Public Policy Forum, studied the threat of disinformation in the lead-up to the 2019 federal election. It aimed "to contextualize and better understand developing patterns of online activity with measures of media consumption, trust and partisanship."19 The project's findings, shared in the report, Lessons in Resilience: Canada's digital media ecosystem and the 2019 election. "suggest the Canadian political information ecosystem is likely more resilient than that of other countries. in particular the U.S., due to a populace with relatively high trust in the traditional news media, relatively homogenous media preferences with only a marginal role for hyperpartisan news, high levels of political interest and knowledge, and — despite online fragmentation — fairly low levels of ideological polarization overall." But the report comes with a warning: "Looking forward, however, we find evidence to suggest potential future vulnerabilities, most of which are related to growing partisanship and polarization, as well as the segmentation of the populace into online information environments that reinforce existing world views."20

¹⁷ Federation for Humanities and Social Sciences. Blog post: "Canadian researchers analyse the spread of Covid-19 misinformation online" December 16, 2020

¹⁸ The Norwegian Ministry of Education and Research. "The Humanities in Norway," 2016-17. p. 10

¹⁹ Nafisi, Azar. "Humanities and the Future of Democracies," Speech, Federation of Humanities and Social Sciences, Congress 2015, Ottawa, Ontario, June 2, 2015, https://www.youtube.com/watch?v=sZb7JfFb1Vc

²⁰ Public Policy Forum. "Lessons in Resilience: Canada's Digital Media Ecosystem and the 2019 Election." 2020, https://ppforum.ca/articles/lessons-in-resilience-canadas-digital-media-ecosystem-and-the-2019-election/

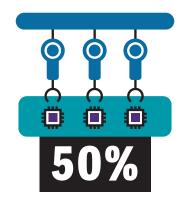
CHAPTER 3:

In-demand skills, rewarding careers

Canadian employers are searching for new employees with strong social and cognitive skills. As new technologies increase automation, demand for these skills will continue to grow.

Whether through dedicated studies in these disciplines or exposure to them as part of other academic programs, the social sciences and humanities can equip students with the critical thinking, analytical, communication and interpersonal skills needed in a world of rapid technological change.

Automation will impact at least 50 per cent of Canadian jobs in the next decade. Jobs of the future will require the human skills acquired through the social sciences and humanities.²¹



"Looking back at the tech teams that I've built at my companies, it's evident that individuals with liberal arts degrees are by far the sharpest, best-performing software developers and technology leaders. Often these modern techies have degrees in philosophy, history, and music — even political science, which was my degree." 22

- DAVID KALT, FOUNDER OF REVERB.COM

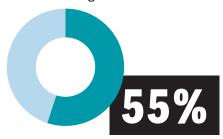


21 RBC. "Humans Wanted — How Canadian youth can thrive in the age of disruption." July 3, 2018. https://www.rbc.com/dms/enterprise/futurelaunch/humans-wanted-how-canadian-youth-can-thrive-in-the-age-of-disruption.html. 22 Kalt, David. "Why I Was Wrong About Liberal-Arts Majors," Wall Street Journal, 1 June 2016, https://blogs.wsj.com/experts/2016/06/01/why-i-was-wrong-about-liberal-arts-majors/

What the CEOs say

The co-CEOs of used car sales platform Shift talked about the benefits of their non-STEM degrees in a tech business in an *Inc.* article entitled, "The Most Unexpected Workplace Trend Coming in 2020: The Return of the Liberal Arts Major." CEO George Arison, a political science grad, gave an example of the complex questions facing social media companies around protecting free speech and combating disinformation, saying these issues may have been handled better if platform leadership had broader backgrounds. His co-CEO Toby Russell, who holds a doctorate in international relations, said the "next generation of great tech companies" will need "soft-skilled leaders that can integrate people, process and technology — to in essence practice technological diplomacy."

An international study found that 55% of professional leaders were social sciences and humanities grads.



A 2015 study by the British Council found that 55 per cent of leaders in the private, public and not-for-profit sectors were social sciences and humanities grads. The study, which targeted 1,700 leaders from 30 countries, found that those in government were more likely to be social science graduates while those in non-profits were more often humanities graduates. The study also found that younger leaders were more likely to have degrees in the social sciences or humanities than older leaders.²³

"...the job tasks least at risk of automation are management, stakeholder interaction, specialized expertise, problem solving, creativity and unpredictable physical work...many of these skills can be acquired through training in the liberal and applied arts." ²⁴

- BROOKFIELD INSTITUTE

"Our scientists are better at their work if they read literature; our diplomats and our generals are more effective when they understand languages; our data scientists are able to think beyond algorithms when they experience art and music." 25

- PETER SALOVEY, PRESIDENT OF YALE UNIVERSITY, 2017

Digital dance



Miao Song, an affiliate assistant professor in Concordia University's

faculty of engineering and computer science, draws from her bachelor's studies in the performance arts in bringing together engineers and computer programmers with dancers and actors to establish a rapidly growing new field of technologically mediated performance that cuts across disciplines.

The future of media



Media executive Kirstine Stewart majored in English at the University of Toronto, She was

recently appointed as the first Chief Revenue Officer at digital rights technology company Pex. She was previously Head of Shaping the Future of Media at the World Economic Forum. She was the first person hired by Twitter in Canada, then became Vice-President of Twitter Media North America, and was formerly Head of the CBC.

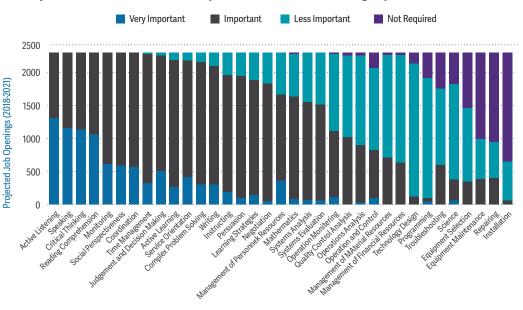
²³ British Council. "Educational Pathways of Leaders: an international comparison," 2015, https://www.britishcouncil.org/sites/default/files/edupathwaysofleadersreport_final.pdf
24 Brookfield Institute for Innovation + Entrepreneurship. "Future-proof: Preparing young Canadians for the future of work," 27 March 2017, https://brookfieldinstitute.ca/future-proof-preparing-young-canadians-for-the-future-of-work/

²⁵ Salovey, Peter. "Why We Need the Humanities More Than Ever." Freedom and Safety, 2 Apr. 2017, https://freedomandsafety.com/en/content/blog/why-we-need-humanities-more-ever-president-vale.

Benefits across the board

Acquiring the skills employers and more broadly society increasingly demand is not reserved for those majoring in the social sciences and humanities. Universities and colleges are incorporating new opportunities for students in other disciplines — from engineering and computer science to biology and chemistry — to gain exposure to the social sciences and humanities in the course of their studies. These students graduate, in turn, with more of the well-rounded skillsets employers seek and are better equipped to play leadership roles in their communities and society.

Projected Skills Demand for all Occupations in Order of Descending Importance²⁶



"Science gave us vaccines, but SHAPE (social sciences, humanities and the arts for people and the economy) disciplines help us get to social realities, such as vaccine hesitancy." 27

- HETAN SHAH, CHIEF EXECUTIVE OF THE BRITISH ACADEMY IN LONDON

The intersection of human and technical skills

A 2018 report called *Robot*Ready: Human+ Skills for the

Future of Work by Strada

Institute for the Future of Work

and Emsi, an international

labour market data company,

had the following key findings:

- Human skills like leadership, communication and problem solving — are among the most in-demand skills in the labour market.
- Human skills are applied differently across career fields. To be effective, liberal arts grads must adapt their skills to the job at hand.
- 3. Liberal arts grads should add technical skills. There is considerable demand for workers who complement their human skills with basic technical skills like data analysis and digital fluency.
- 4. Human+ Skills are at work in a variety of fields. Human skills help liberal arts grads thrive in many career areas, including marketing, public relations, technology, and sales.²⁸

²⁶ RBC. "Humans Wanted: How Canadian youth can thrive in the age of disruption," 2008. p. 12, http://www.rbc.com/newsroom/assets-custom/pdf/03-2018-rbc-future-skills-report.pdf.

²⁷ Shah, Hetan. "COVID-19 recovery: science isn't enough to save us," Nature, March 23, 2021.

²⁸ Strada Institute for the Future of Work and Emsi. "Human+ Skills for the Future of Work, 2018," https://www.economicmodeling.com/robot-ready-reports/

Busting the barista myth

An education in the humanities and social sciences opens up unlimited career paths with strong incomes over time. Far from the misguided stereotype of liberal arts grads stuck in low-wage jobs, sometimes known as the "barista myth," research shows that in the first decade after graduation, earnings are very similar to those of grads from other disciplines.

Over time, income gaps shrink

Looking at tax data, researchers at the University of Ottawa's Education Policy Research Initiative (EPRI) found that incomes of bachelor's graduates from the social sciences and humanities are very similar to those from other disciplines over time. While their earnings may be lower immediately following graduation, the growth in earnings for these grads

soon puts them in line with earnings of other grads.

For example, 2014 research by the EPRI found that average earnings of social sciences bachelor's graduates started at around \$40,000 immediately after graduation but almost doubled over 13 years to just under \$80,000 — similar to earnings for math and natural science graduates at that point in their early careers.³⁰

Two years after graduation, social science graduates in Ontario have an employment rate of 93 per cent.²⁹



"After about a decade, STEM majors start exiting their job fields as their skills are no longer the latest and greatest. In contrast, many humanities majors work their way to high-earning management positions. By middle age, average pay looks very similar across many majors." 31

- HEATHER LONG, ECONOMICS CORRESPONDENT, THE WASHINGTON POST

"The advantage for STEM (science, technology, engineering and mathematics) majors fades steadily after their first jobs, and by age 40 the earnings of people who majored in fields like social science or history have caught up." ³²

 DAVID DEMING, DIRECTOR OF THE MALCOLM WIENER CENTER FOR SOCIAL POLICY AT THE HARVARD KENNEDY SCHOOL

²⁹ Council of Ontario Universities, "Graduate Survey: A Better Future for University Students," January 2018, p. 10, https://ontariosuniversities.ca/wp-content/uploads/2018/01/COU-GradSurveyReport-accessible.pdf.

³⁰ Finnie, Ross et al. "Barista or Better? New Evidence on the Earnings of Post-Secondary Education Graduates: A Tax Linkage Approach," Education Policy Research Initiative, University of Ottawa, 2016. 31 Long, Heather. "The world's top economists just made the case for why we still need English majors." *The Washington Post*, 19 October 2019, https://www.washingtonpost.com/business/2019/10/19/worlds-top-economists-just-made-case-why-we-still-need-english-majors/

³² Deming, David. "In the Salary Race, Engineers Sprint but English Majors Endure," in the New York Times, 20 September 2019, https://www.nytimes.com/2019/09/20/business/liberal-arts-stem-salaries.html.

For your consideration

From philosophy and political science to modern languages and history, the social sciences and humanities help us learn about our world and ourselves. They equip us to formulate big questions and instill the skills we need to find the answers. They make us more ethically, culturally and historically aware.

Importantly, the humanities and social sciences allow us to imagine a better future and discern how to get there. In short, they help us achieve our potential, individually and collectively.



"There's no doubt that university education in the arts contributes to a productive and effective work force. But there's also an intrinsic value in encouraging our graduates to contribute to an intellectually stimulated and engaged citizenry."³³

 ANTONIA MAIONI, DEAN OF THE FACULTY OF ARTS AT MCGILL UNIVERSITY AND FORMER PRESIDENT OF THE FEDERATION FOR THE HUMANITIES AND SOCIAL SCIENCES



Building a better Canada through the humanities and social sciences

From solving big problems and preparing students for the future to strengthening democracy and fostering social cohesion, the humanities and social sciences are indispensable to Canada and the world. But our society is at risk if we undervalue and underfund these disciplines.

Protecting and growing the benefits we all enjoy from the social sciences and humanities requires a few simple, but impactful steps. A few takeaways:

Students: Feel confident about your future.

Rest assured, the skills and knowledge you will learn by studying these disciplines will be in demand. And research shows that over time, incomes are on par with those of grads from other disciplines. So don't be afraid — invest in your values, passions and curiosity.

Scholarly institutions and associations: Strengthen efforts to address racism and systemic inequities in higher education

Much more needs to be done to achieve equity, diversity, inclusion, and decolonization (EDID) within our disciplines, on our campuses, and in our classrooms. While important work is underway, achieving deep, sustained progress requires our institutions and associations to build on current activities and embrace a transformative vision and practice. This includes embedding equity, diversity, inclusion, and decolonization into structures, systems, policies, processes and practices.

Government: Increase funding for social sciences and humanities research.

Canada needs the knowledge and insights gained through research in the social sciences and humanities. The federal government has targeted 20 per cent of research funding for these disciplines but the actual rate has not yet risen above 16 per cent. The complex challenges of today's world make it more urgent to address this funding shortfall.

Everyone: Recognize and embrace the value of the humanities and social sciences in addressing Canada's biggest challenges and improving our quality of life.

If the vital contributions of the humanities and social sciences are not well understood, we as a society will overlook skills, insights, resources and areas of knowledge we need to address our greatest challenges and build a better future.

This report helps point the way to a greater understanding of the value of these disciplines to society. The Federation for the Humanities and Social Sciences is committed to a wider sharing of such learnings and stories to help build awareness around the importance of the humanities and social sciences in a rapidly changing world.





"We're at a time of understandable worry and uncertainty as we work to pull ourselves out of a global pandemic, and wonder what the coming years hold for us. We must be mindful that we will succeed in emerging from this period of isolation — and that we are the authors of the next chapter. I'm confident that lessons and learnings from the social sciences and humanities will be essential as we build our future — a more inclusive and sustainable future where more people are empowered to fully develop their talents, achieve their potential, and contribute to the world around them."



Mike DeGagné
Chair, Board of Directors
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