CIFAR

REPORT: INCAUTIOUSLY OPTIMISTIC

A study of Canadians' attitudes and perspectives on artificial intelligence, using data from social media and search audits

AUGUST 2023

LAND ACKNOWLEDGEMENT

CIFAR's office is located on the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee, and the Wendat peoples. This land is now home to many diverse First Nations, Inuit, and Métis peoples. It is covered by Treaty 13 with the Mississaugas of the Credit.

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INTRODUCTION & OVERVIEW

The Canadian Institute for Advanced Research (CIFAR) undertook a research study in the Spring of 2023 that was comprised of a national social media listening audit and search analysis. It was designed to capture a snapshot of Canadians' perspectives, opinions and sentiment surrounding the topic of Artificial Intelligence, or AI.

Analysis of this data discovered that Canadians are measurably excited and engaged in exploring, discovering, and learning more about evolving AI tools. Specifically, positive discourse and sentiment far outweighed negative ones by an almost two-to-one ratio. Notably, AI conversations in Québec considerably outnumbered that of the other provinces. Search data also supported these findings.

As the AI sector evolves at breakneck speeds, it is evident that patterns of "shiny object syndrome" are emerging across the country. What is missing at equal scale in Canada's AI-focused social media conversations, however, is demand for safeguards such as: strategies to mitigate built-in bias, transparency of data collection processes, and methods to prevent malicious use, among others.

World-leading experts in the AI sector in Canada weighed in on this research study's findings and their perspectives are shared in this report. Collectively, they are calling for an adaptive "big picture" strategy for Canada, with smart regulations that can guide the country and the globe in developing responsible AI for many future generations.

This study makes it clear that empowering Canadians to adopt a balanced approach of evaluating both opportunities and risks in AI is needed today. Top Canadian AI thought-leaders concur that deepening AI literacy across the country, and promoting the public's engagement in this sector must be seen as top priorities right now.

METHODOLOGY

This research consisted of a national social media listening audit performed on NetBase Quid, an AI-powered consumer and market intelligence tool, to analyze AI trends being populated across all languages in Canadian social media conversations. Understanding that not all Canadians utilize social media platforms to transparently voice their opinion or engage in conversation, and also heavily rely on online search engines to seek out information and ask questions, the report also includes search volumes and data from Google Trends and Google's People Also Ask (PAA) feature on AI-related queries searched online by Canadians.

The social media listening audit analyzed data from January 20, 2021, to April 20, 2023. The start date indicates when quantifiable relevant social media conversations that included the terms "artificial intelligence" or "AI" started to appear in NetBase Quid, and the end date was selected to ensure the audit included data related to the AI-pause open letter. Similarly, search volumes and data related to "artificial intelligence", or "AI" started to appear in Google Trends for Canada on April 20, 2017, and we extended the search trend audit to April 20, 2023.

To analyze data, NetBase Quid utilizes three primary methods, including:

- Natural Language Processing (NLP) driven insights to understand the context, emotion and sentiment in conversations.
- Sentiment analysis to accurately determine if conversations are positive, negative or neutral.
- Emotion detection to identify specific emotions like joy, anger or sadness for deeper understanding of user reactions.

When analyzing data, NetBase Quid uses comprehensive metrics to track the volume of mentions, sentiment score, engagement, reach and share of voice. Each mention or piece of content is assigned a sentiment score based on the detected sentiment. The score typically ranges from -100 (most negative) to +100 (most positive), with "0" representing neutral sentiment.

While it's difficult to quantify the exact margin of error, research studies on sentiment analysis tools generally report accuracy levels ranging from 70% to 90%.

NetBase Quid collects data from social media platforms, blogs, forums and online news sites, and filters and analyzes data based on geographic locations and language for more targeted insights. Twitter serves as the main platform for mentions related to "Artificial Intelligence" and "AI" with further mentions discovered on news websites, blogs and forums.

Within the "artificial intelligence" and "AI" topic, "regulation" and "dangerous" emerge as the most frequently mentioned themes, which prompted further exploration and analysis. Diving deeper into the themes of "regulation" and "dangerous", the top three topics discussed extensively include "privacy concerns", "threat to people", and "threat to jobs", which were subsequently analyzed for the report.

1 https://futureoflife.org/open-letter/pause-giant-ai-experiments/

METHODOLOGY

For the online search audit, Google Trends was used to provide access to a largely unfiltered sample of actual search requests made to Google. It's anonymized (no one is personally identified), categorized (determining the topic for a search query) and aggregated (grouped together). This allows Google to display interest in a particular topic from around the globe or down to city-level geography.

Two samples of Google Trends data were accessed:

- Real-time data: a sample covering the last seven days of the audit (April 13 to 20, 2023).
- Non-real-time data: a separate sample that goes as far back as 2004 and up to 72 hours before our search. Artificial Intelligence and AI started to appear in Google Trends data on April 20, 2017

Google Trends normalizes search data to make comparisons between terms easier. Search results are normalized to the time and location of a query by the following process:

- Each data point is divided by the total searches of the geography and time range it represents to compare relative popularity. Otherwise, places with the most search volume would always be ranked highest.
- The resulting numbers are then scaled on a range of 0 to 100 based on a topic's proportion to all searches on all topics.
- Different regions that show the same search interest for a term don't always have the same total search volumes.

PAA was also utilized to show other queries or questions people enter into Google Search. PAA is a Google search engine results page (SERP) feature that provides users with additional questions related to their original search query and quick answers to them. Generally, each question in the PAA section contains a featured snippet for that query.

DATA COLLECTION

Some social media platform restrictions and transparency guidelines impacted this study's data collection and should be noted.

Only a subset of Facebook sound bites – about 35.8% – contain geolocation information. This percentage is derived from Facebook pages and users who are publicly accessible and have specified geolocation data. Facebook does not provide geolocation metadata in a usable format for real-time data. NetBase Quid's rules-based processing analyzes the author handle and emojis of a post to identify geolocation data that may not otherwise be available directly from Facebook. Due to this restriction, Facebook data in this report is a fraction compared to data from other platforms. Similar geolocation restrictions apply to Instagram as well.

Moreover, NetBase Quid is not able to access or analyze data from other social media platforms such as: LinkedIn and TikTok.

These restrictions and platform limitations, prevent this study from analyzing the entirety of AI trends being populated across all social media conversations in Canada. As such, the report's findings are limited in scope and skewed demographically.

DATA COLLECTION

While only a sample of Google searches are used in Google Trends, the platform considers it sufficient because it handles billions of searches per day. Providing access to the entire data set would be too large to process quickly. By sampling data, Google looks at a dataset representative of all Google searches and finds insights that can be processed within minutes of an event happening in the real world.

Google Trends data reflects searches people make on Google every day, but it can also reflect irregular search activity, such as automated searches or queries that may be associated with attempts to spam its search results.

While Google has mechanisms in place to detect and filter irregular activity, these searches may be retained in Google Trends as a security measure. Filtering them from Google Trends would help those issuing such queries to understand Google has identified them. This would then make it harder to keep such activity filtered out from other Google Search products where high-fidelity search data is critical. Given this, it is important to recognize that Google Trends data is not an exact mirror of organic search activity.

Google Trends does filter out some types of searches, such as:

- Searches made by very few people – Google Trends only shows data for popular terms, so search terms with low volume appear as “0”
- Duplicate searches: Google Trends eliminates repeated searches from the same person over a short period of time.
- Special characters: Google Trends filters out queries with apostrophes and other special characters.

Overall, Google Trends reflects the search interest in particular topics. A spike in a particular topic does not reflect that a topic is somehow “winning,” only that there appear to be many users performing a search about a particular topic. Google Trends data was used as one data point among others that supported the conclusions drawn from this study.

RESULTS

Incautiously Optimistic: Canadians are eager and actively talking about AI on their favourite social media sites. A national social media audit discovered that this topic generates a significant volume of mentions, and while there is some skepticism in the discussions, conversations overall are overwhelmingly positive. This study's data shows that Canadians are embracing AI with open arms and are perhaps "incautiously optimistic" as the name of this report suggests.

Where there are concerns, words such as "regulation" and "dangerous" emerge as the most frequently mentioned themes. Privacy, threats to people and threats to jobs also dominate conversations of concern.

AI sector experts noted that some important terms were not making it into the spotlight such as: "fairness" and "bias," both of which are essential considerations in responsible AI. This is because increasingly, AI technology is being applied today to decision-making processes that directly impact people (e.g., screening resumes, collecting and analyzing healthcare data, assessing mortgage risks, etc.). This speaks to the need for Canadians to develop more awareness of the issues about AI that may affect them most directly.

RESULTS

A key regional finding

Interestingly, AI conversations by share of voice were quantifiably almost double in French compared to English (63 per cent versus 32 per cent respectively). This suggests French-speaking Canadians are much more engaged in AI conversations than their counterparts in other provinces.

> **"Québec has had a long-standing, strong tradition of excellence in AI research and innovation. There is a lot of richness in its start-up eco-systems, adoption in the industry, and a strong tradition of public engagement in AI discourse."**
>
> **ELISSA STROME**
> Executive Director, Pan-Canadian AI Strategy, CIFAR

Of note: the Canadian data collected in this research included the representation of 37 different languages overall, with Twitter being a dominant source of data, and blogs/forums following, as the next largest source.

RESULTS

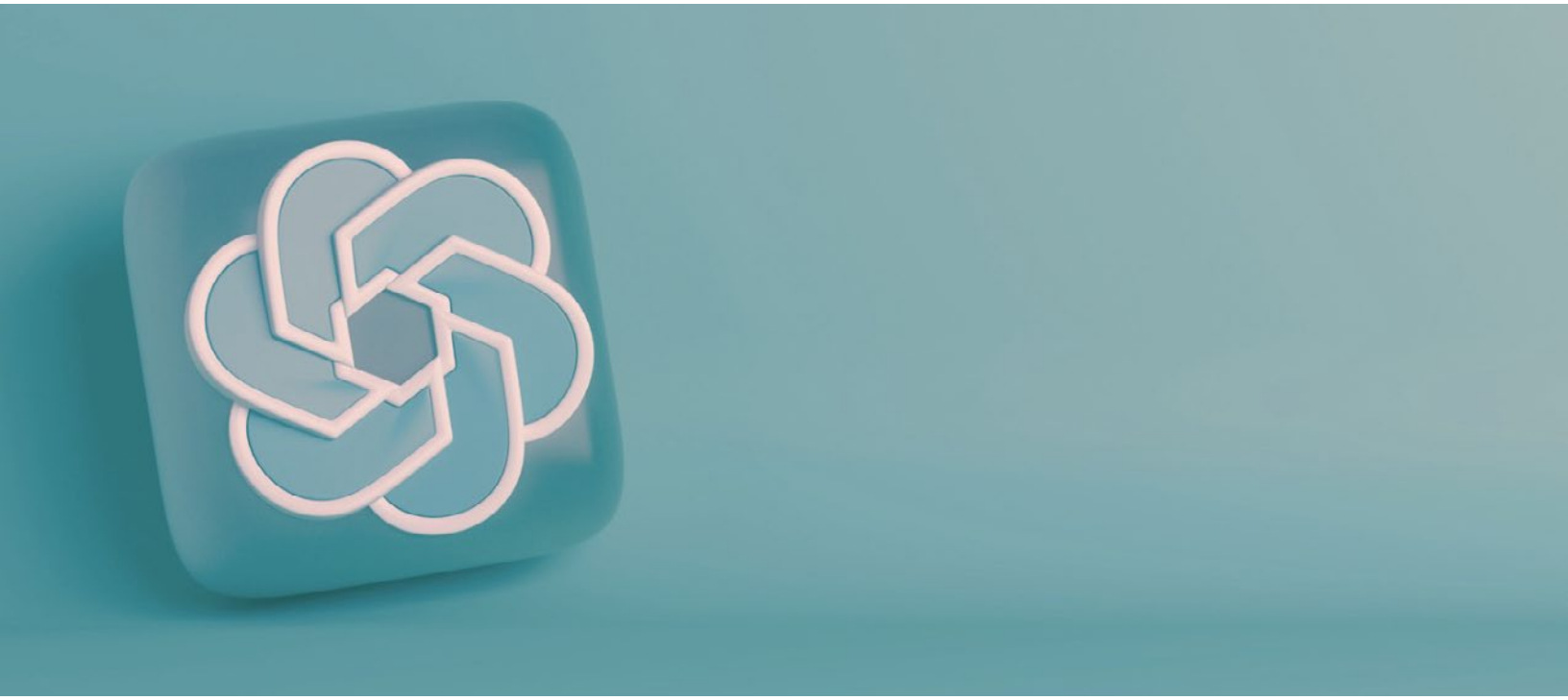
AI, ChatGPT and engagement across all generations

While "AI" has been a preferred search term for Artificial Intelligence throughout the past five years, as of late July 2022, "AI" began to see rapid growth in searches. It became clear that this two-letter acronym was now a ubiquitous term in Canadians' everyday vernacular.

Interestingly, as ChatGPT took the world by storm, Canadians were in lock step. As of March 2023, searches for "ChatGPT" overtook searches for the term "AI" in Canada.

Another noteworthy finding is that there isn't one dominant age group that is leading the charge on AI-related conversations on social media in Canada. The data collected in this study reflected the following breakdown:

- **<18 years of age:** 11 per cent
- **18 to 24:** 14 per cent
- **25 to 34:** 18 per cent
- **35 to 44:** 16 per cent
- **45 to 54:** 14 per cent
- **55 to 64:** 16 per cent
- **65+:** 12 per cent



RESULTS

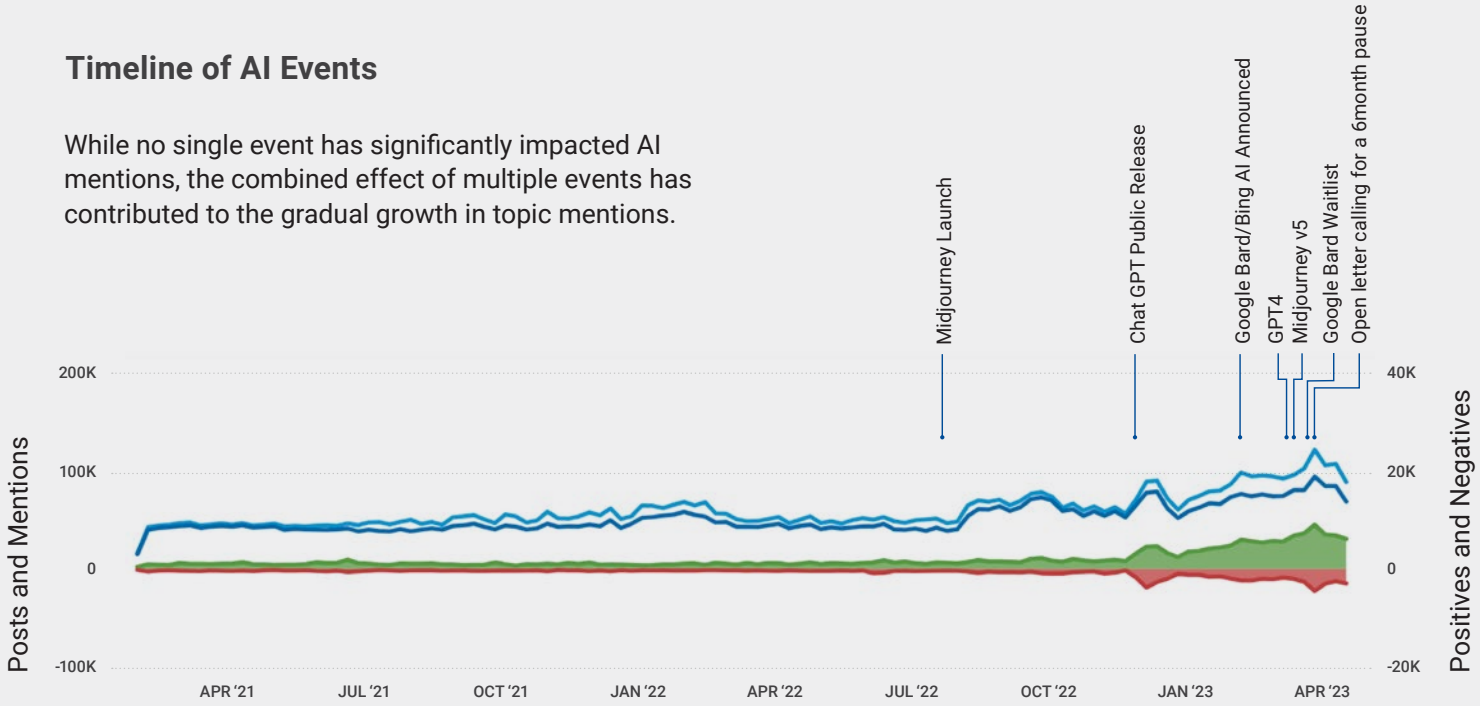
Notable peaks in AI conversations

Social media conversations around AI have been visibly trending upward since December 2022, with highly positive perception. Over 5.9 million posts mentioning AI were included in this study, which translated to 6.9 million online mentions. This volume of content carries potential impressions of 137 trillion in reach.

Moreover, today, there is three times more conversation on AI in social media across Canada, compared to in 2021. The following graph highlights some key peaks where social media conversations on AI rose in Canada from 2021 to 2023.

Timeline of AI Events

While no single event has significantly impacted AI mentions, the combined effect of multiple events has contributed to the gradual growth in topic mentions.



Timeline of AI events between January 20, 2021, and April 20, 2023. Data sourced from https://netbasequid.com/

RESULTS

Imperfect data sourcing options

While Canadians' engagement across age demographics is encouraging news, gender parity however, appears to be missing – at least within the limited data that is currently publicly available.

Conversations captured in this study were dominated by male-identifying voices at 67 per cent versus female-identifying ones at 33 per cent. It must be noted that certain social media platforms and online destinations, that may attract a larger audience of one gender group versus another, will skew the results produced in this study. It is still worthwhile and valuable to examine the online data that is currently available for review, even if the sourcing options are imperfect.

Canadians react to the AI sector leaders' call for a pause

An open letter was published in the Spring of 2023 from top technology leaders calling for a pause on giant AI experiments. It initially had 1,500 signatories including Elon Musk. At the time of this report's publication however, that figure jumped to 33,000. While the open letter garnered widespread editorial attention, it didn't have a dampening effect on Canadians' sentiment on AI.

In comparison to the voluminous positive discourse on AI in social media, overall mentions of "the letter" were substantially lower, and the net sentiment of such content was actually negative. Some social media discussions in Canada about the letter also suggested skepticism about the organizers' motivations.

Generally-speaking, many Canadians appear to be mistrustful of various big tech organizations, their leaders, and their conflicting interests. These members of the public are taking such potential conflicts of interest into account when evaluating "AI news" in the media.

> **"We are at a pinnacle moment today in our AI journey where we need the Canadian public to understand and demand certain elements to chart our path forward. ChatGPT has raised awareness and now people are hungry to learn more. We need to feed that hunger. Universities, the private sector, governments, the media, NGOs – we all have a role to play in this regard."**
>
> **ELISSA STROME**
> Executive Director, Pan-Canadian AI Strategy, CIFAR

RESULTS

Canadians are in “play” mode with AI right now

The data clearly suggests that Canadians are most interested right now in interacting with new and emerging AI tools – to understand how these may be useful for them personally. Their focus is not on big picture conversations on AI, but rather, at a micro level, focused on immediate interactivity.

This could explain why the term “use” was shown to be a primary driver in positive sentiment among social media posts with 19,637 mentions in this study’s data set. The attribute “help” was also most-frequently mentioned in 13,896 instances. In fact “use” versus “non use” is being used at a ratio of 19:1 in social media conversations. And if we compare and contrast use of the word “use” to potentially negative words such as “ban” or “problem” or “dangerous”, these terms only appeared 1,398 times, 1,772 times and 1,426 times respectively in social conversations.

The available data indicates excitement around AI is palpable amongst Canadians participating in conversation on social media. This population is definitely in an initial discovery and “play” mode right now.

RESULTS

Implications from the findings

AI sector experts weighed in with the following insights:

> "We're very much at an inflection point right now. ChatGPT, a commercial application has gotten people excited because it's a cool technology. Now, it's important for Canadians to demand that AI systems are explainable, transparent, and trustworthy."

CHRISTOPHER PARSONS
Senior Technology and Policy Advisor, Information and Privacy Commissioner of Ontario (IPC)

> "Canadians have the right to be engaged and to shape how AI is developed and how we use it. I hope they will see that and embrace it."

MARC-ANTOINE DILHAC
Canada CIFAR AI Chair, Mila; Associate Professor of Ethics and Political Philosophy, University of Montréal

> "More and more, AI algorithms and tools are being used to make decisions about people, and when we're making decisions about people, we need to be careful about whether those decisions are sound. In other words, we need to have a measured way of making sure those decisions are right. So, it is important that we understand the ethical aspects, because these decisions will impact people's lives and the stakes can be high."

NIDHI HEGDE
Canada CIFAR AI Chair, Amii; Associate Professor, Department of Computing Science, University of Alberta

> "Many people today are identifying their experience of AI as being consumer driven. But we have an opportunity in Canada today to tell a bigger story of the potential application of AI for social good – one that supports Canadian values, while balancing it with caution to protect the public from misuse of AI."

ELISSA STROME
Executive Director, Pan-Canadian AI Strategy, CIFAR

DISCUSSION

Approaching the future of AI – what do Canadians need to know?

In examining the Canadian mindset, this study found, as Canadians jump into AI tools and "play," it is evident that a strategy is needed to maintain the public's trust factor in the sector as a whole. How can Canada steward AI in its culture and lead a global movement towards responsible AI? How does the marketing of new tools (the latest shiny objects) in Canada impact the development of this sector? What are the implications of individual products from private companies going viral?

To consider these issues, as part of this study, we asked top AI-focused leaders in Canada – if they had the ears of every Canadian listening to them for just one moment, what ONE message would they like to share with their fellow citizens? The responses on the following page were collected as part of this study.

DISCUSSION

If we take away only ONE thing…

AI sector leaders offer one key insight they want every Canadian to know:

> "I'd love for Canadians to look at AI in two directions simultaneously: 'Yes, this is a really impressive and cool technology, but wow, the potential negative impacts here are really immense too. Any regulation in this space needs to be considered and careful.'"

CHRISTOPHER PARSONS
Senior Technology and Policy Advisor, Information and Privacy Commissioner of Ontario (IPC)

> "AI algorithms and tools are built by humans. They are learning tools and autonomous, so from an ethics perspective, we want to make sure the right values are encoded in the outcomes that come from these tools. We are the ones building these. We have the means to build these the way that we want."

NIDHI HEGDE
Canada CIFAR AI Chair, Amii; Associate Professor, Department of Computing Science, University of Alberta

> "Be interested in the issue and ask your government to be accountable about it. In a recent electoral campaign, there were no discussions about AI on the table, or technologies more broadly. As Canadians, we need to push the agenda and have those discussions."

CATHERINE RÉGIS
Canada CIFAR AI Chair, Mila; Professor, Faculty of Law, University of Montréal, Canada Research Chair in Collaborative Culture in Health Law and Policy

DISCUSSION

If we take away only ONE thing…

AI sector leaders offer one key insight they want every Canadian to know:

> "Recognize that AI is just a tool – for the better if you use it in a good way, or for worse if you have bad intentions. The inherent good or bad is not embedded in AI. It is a matter of how AI is used."

MARC-ANTOINE DILHAC
Canada CIFAR AI Chair, Mila; Associate Professor of Ethics and Political Philosophy, University of Montréal

> "What gives me pause is that there is potential to have widening inequity through AI technology. Some people who can embrace it will have opportunity to power up, improve their efficiency, their skills, their jobs, and their success. Whereas, if others don't have the resources to embrace it, they could be left behind, especially as this represents a major shift in our economy and society. We must combat that inequity by giving everyone the opportunity for a baseline level of AI literacy."

GRAHAM TAYLOR
Canada CIFAR AI Chair and Research Director, Vector Institute; Professor, Engineering, University of Guelph; Academic Director, NextAI

DISCUSSION

From a developer tool to a consumer tool

The sudden rise of ChatGPT has resulted in this new tool receiving exponentially more mentions than other popular programs like Midjourney, or even divisional brands such as Google AI.

ChatGPT has transformed Canadians' relationship to AI. What once used to be seen as an illusive AI sector comprised of "developer tools" whose inner workings and impact remained unknown to the general public, is now becoming as common as social media platforms like Instagram and TikTok.

In March 2023, AI suddenly became a sector that promised to offer new and exciting, interactive "consumer tools."

That interactivity has changed the AI game, and many Canadians are getting caught up in what is commonly referred to as, "Shiny object syndrome" – chasing the newest, latest and greatest offerings as they appear.

> **"ChatGPT made AI very concrete in life, for everybody. Canadians became really conscious about AI; it suddenly became very vivid in their minds and people have now realized, this is not going away. It will be a part of our lives and we need to learn to manage how we work with it."**
>
> **CATHERINE RÉGIS**
> Canada CIFAR AI Chair, Mila; Professor, Faculty of Law, University of Montréal, Canada Research Chair in Collaborative Culture in Health Law and Policy

DISCUSSION

Canada can stand for responsible AI

While Canadians in public conversations are willing to take personal responsibility for the potential consequences that come with their engagement in AI (e.g. loss of privacy, monitoring ethics, changing jobs, etc.), Canada as a country is left asking the question: how do we want to be known globally for our AI leadership?

Leaders interviewed as part of this research study discussed the opportunity for Canada to take ownership of the development of responsible AI. In the same way that this country led the globe in AI exploration when it developed the Montréal Declaration for Responsible AI Development, leaders across the spectrum agree, the opportunity is here, right now, for Canada to shape the future definitions of responsible AI and to lead that charge.

> **"We must establish proper rules and principles to be followed when using data about people. From a regulation point-of-view, when it comes to responsible AI, transparency and "explain-ability" are key principles we must consider. For example: how is data being collected and used? What is the data being used for? Is it (the data) being collected by the same people who are going to use it? If data is being collected for one purpose, is it actually being used only for that purpose or will it be used elsewhere? If AI models are being trained on that data, are they using data that is appropriate for the problem they are trying to solve? Are decisions made based on AI algorithms and tools unbiased or discriminatory to sub-groups? Every Canadian has the right to ask for such transparency in how data is collected and used."**
>
> **NIDHI HEGDE**
> Canada CIFAR AI Chair, Amii; Associate Professor, Department of Computing Science, University of Alberta

> **"There was a lot of talk in the past about a power concentration and AI technology being in the hands of a few high-tech companies, but what is exciting is for the first time in Canadian history, we have so many people interacting with AI systems. Not only is everyone talking about ChatGPT for example, there is a whole community building around it. People in the open source community are building their own models on top of new models. This means we will have greater access, and that is something we need to consider – to keep AI technology accessible to as many people as we can."**
>
> **GRAHAM TAYLOR,**
> Canada CIFAR AI Chair and Research Director, Vector Institute; Professor, Engineering, University of Guelph; Academic Director, NextAI

DISCUSSION

Fighting bias proactively

Based on the data available for this study, Canadians are in discovery mode with AI, and are not bothering to dig deeper just yet to search for and identify built-in biases that may affect how Canadians use AI.

In this context, AI leaders offer the following words of wisdom to Canadians, on how individuals can build greater awareness of the impacts of biases, how to mitigate them, and how the government and the sector can do the same for their industries.

> **"Let's ensure that the data and then the systems that are built upon that data are fair. Fairness is reflective of where we want to be in society. So, when we are training a system with data for example, we don't just want to be statistically representative of the way the world is – but rather, how it ought to be."**
>
> **CHRISTOPHER PARSONS**
> Senior Technology and Policy Advisor, Information and Privacy Commissioner of Ontario (IPC)

DISCUSSION

Examining the Canadian mindset

Canadians recognize that AI will inevitably have a sweeping impact on jobs across the country. However, based on terms used in social posts and terms being searched online, it appears the country's optimism continues. For example: the term, "Better job" with AI, saw more mentions than "threaten job" with AI – even though both had high volumes of mentions (875 versus 563 respectively).

Conversations around AI and jobs also saw positive sentiment – overwhelmingly more than negative sentiment in posts with "cause job loss', "threaten," etc. "Better job" mentions were accompanied by words like "help," and "create." This suggests that Canadians see AI as having the potential for much greater positive impact than negative ones.

Even conversations online surrounding regulations and AI are carrying positive sentiment overall.

It appears that Canadians' current mindset is focused on embracing the "good" that comes with AI, while accepting that some negative consequences will be expected, and is part of the full formula.

Canadians also appear to be accepting that a loss of privacy is part of the package, when it comes to enjoying the many benefits of AI. The data in this research suggests Canadians are willing to sacrifice privacy, and the ethics of copyright, etc. in order to explore where AI can take them in the future.

It is worth noting that while Canadians' excitement around AI in social media conversations is quite optimistic, some sector leaders feel it is almost too positive - to a fault. They are cautioning that it is important to keep a critical eye on systems and processes that impact how AI is being used across society. These leaders are suggesting that conversations are needed now – not just about acceptance of new technologies or even adoption rates, but about paying attention to how data is being collected, how tools are being programmed, and considering how this will affect people both now and into the future.

> **"We have to make a distinction between AI developed for the market, and AI developed for the government or public institutions. Public applications are where issues, problems and negative impacts can affect many people if AI is not applied for public good."**
>
> **MARC-ANTOINE DILHAC**
> Canada CIFAR AI Chair, Mila; Associate Professor of Ethics and Political Philosophy, University of Montréal

DISCUSSION

Up-leveling Canadians' AI literacy

The data in this study suggests that while Canadians recognize that potential negative consequences are an inevitable part of the AI eco-system, their social media conversations are indicating that they are not paying full attention to this. It could be said that Canadians are looking the other way right now.

This is why many sector leaders are calling for initiatives to advance Canadians' literacy of AI and its potential to the next level. Such endeavors can help Canadians to not only consider their own individual responsibility in AI, but also empower them to hold governments and policymakers collectively accountable for shaping responsible AI for the good of society.

> **"To help the public have trust in developers and governments, we must make sure Canada has appropriate regulations, tools, and frameworks, so people feel there are some safeguards when AI systems are implemented."**
>
> **CATHERINE RÉGIS**
> Canada CIFAR AI Chair, Mila; Professor, Faculty of Law, University of Montréal, Canadian Research Chair in Health and Law Policy

CONCLUSION

Building in AI safeguards

Based on the data analyzed in this study, it is clear that Canadians are welcoming AI with full embrace. They are hungry to learn more and experience more. While Canadians know there are inherent dangers if these tools are used for malice, they are opting to focus on the positive outcomes that can give them immediate comfort.

In this climate, it is critically important for Canada as a nation to work on raising the public's bar on AI literacy to the next level. In this way, leaders will naturally be accountable to their citizens, and the proper safeguards can be put into place to ensure that ethics are considered, biases are addressed, and regulations are followed to ensure responsible AI practices are implemented across the country.

While this will be a significant challenge, our experts believe that these efforts are of the utmost importance for Canada and the world, as we venture into an increasingly AI-influenced future.

> **"Nearly every type of work Canadians will go into in the future will certainly be impacted by AI or data, so data literacy will be very important from an early age. This includes, knowing for example: What is data? How is it being used? And, how is my data being used in conjunction with other data?"**
>
> **NIDHI HEGDE**
> Canada CIFAR AI Chair, Amii; Associate Professor, Department of Computing Science, University of Alberta

> **"'I have the right to know when and where AI is being used in a product or service that affects me.' This is the kind of demand I'd love to see every Canadian making of our sector."**
>
> **ELISSA STROME**
> Executive Director, Pan-Canadian AI Strategy, CIFAR

CONCLUSION

Canada's three AI-focused to-do's

To this end, AI sector leaders have identified three action items needed for Canada's continued journey in developing responsible AI. These immediate steps are outlined as follows:

1. Counter AI systems biases: Coupled with optimism for AI, Canada needs to diligently search for, guard against and mitigate blind spots and biases in building AI systems. Ensuring representation and inclusion in the teams who are building and safeguarding AI will be critical to this step, moving forward. Canadians must hold governments and policymakers to account for such purposeful representation and inclusion.
2. Raise AI literacy across Canada: Building on the pride that Canadians have as one of the world's most educated countries, and considering its high internet usage and digitally-savvy culture, it is critically important that the population as a whole raises its AI literacy to the next level. This includes understanding the opportunities and risks that AI advancements pose, not just at a micro level, but at the macro level, both for national interests and for good global citizenship.
3. Promote public engagement: In addition to increasing literacy, Canada needs greater, deeper public engagement when it comes to contributing questions on policy and regulation development. Such interactive dialogue can keep the focus for decision-makers on AI development for social good, while supporting equity in citizen rights.

> **"When we can raise the baseline level of AI knowledge across the country and seed discussions, this can promote the development of policies that are representative of all Canadians. When more people interact with the government, policies can be shaped by a broader variety of people and perspectives. I think it will be beneficial for Canadian companies too, to have more Canadians engage in policy, so it's clear what our country wants to see in products and services derived from AI."**
>
> **GRAHAM TAYLOR**
> Canada CIFAR AI Chair and Research Director, Vector Institute; Professor, Engineering, University of Guelph; Academic Director, NextAI

CONCLUSION

> "Today, there is a very comprehensive linkage between law, technology, policy and practice, and while individuals need to make choices, regulatory and oversight bodies must also come into play. Ideally, what you get out of that is better software that is more accountable, and that respects Canadians' privacy interests."

CHRISTOPHER PARSONS
Senior Technology and Policy Advisor, Information and Privacy Commissioner of Ontario (IPC)

> "We have a window of opportunity here to examine: 'What can we do with this? How should we frame it? How should we regulate it? How should we use it?' We need to use this space that we have right now to examine these questions."

CATHERINE RÉGIS
Canada CIFAR AI Chair, Mila; Professor, Faculty of Law, University of Montréal, Canada Research Chair in Collaborative Culture in Health Law and Policy

> "I am a big fan of technological democracy, or innovation democracy. This is about democratically gathering people to discuss AI, reflecting on the development and uses of the technology, and sharing of opinions. The most important thing is engaging in this tool. "

MARC-ANTOINE DILHAC
Canada CIFAR AI Chair, Mila; Associate Professor of Ethics and Political Philosophy, University of Montréal

A NOTE OF THANKS TO OUR CONTRIBUTORS

With deep appreciation, we would like to acknowledge and offer our gratitude to the following world-leading Canadian researchers, who shared their rich insights for this research report.

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THANK YOU!

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