Ctrl + Alt + Regulate:

Assessing Student Perspectives on AI Governance

Pilot Study

Abstract

This pilot study examines young adults' perspectives on artificial intelligence (AI) governance, addressing their notable exclusion from regulatory discussions. An online Qualtrics survey captured the views of five Canadian university students to understand their sentiments toward AI, perceptions of its impact on various life aspects, and opinions on existing regulatory frameworks. Preliminary findings indicate a generally positive outlook on AI's future impact but significant concerns about equitable access and job losses. Critically, participants uniformly favoured an institutionally led, rules-based approach to AI regulation – contrasting with recent findings by the Schwartz Reisman Institute for Technology and Society (2024). These insights suggest younger adults are cautiously optimistic about AI but emphasize the necessity of regulatory frameworks that incorporate public perspectives, address potential risks, and enforce compliance. Our methodology offers initial guidance for policymakers on engaging younger generations in AI governance discussions – to adequately prepare society for a future increasingly influenced by AI technologies.

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Introduction

The rapid advancement of AI technologies presents numerous legal, ethical, and regulatory challenges for policymakers. AI systems, increasingly embedded in daily decision-making processes – from mobile applications to complex predictive systems – remain opaque due to their black-box nature and proprietary control by tech companies (Burt, 2019; Heikkilä, 2023; Weber, 2023). This lack of transparency, coupled with the surge of AI entities entering the consumer market, has eroded global trust in the tech industry's ability to self-regulate (SRI, 2024).

Governments worldwide have explored various frameworks for AI governance, with two predominant approaches: stringent rules-based methods – focusing on end-user protections – and principles-based methods. Specifically, the rules-based approach involves detailed prescriptions for regulatory compliance, offering clarity and predictability while potentiating complexity and loophole exploitation (Barrowman et al., 2024). Conversely, principles-based philosophies – currently the favoured regulatory trend (Crichlow, 2024) – emphasize core values such as transparency and fairness that allow for innovation and flexibility but raise concerns about discretionary enforcement.

While the success of these approaches remains indeterminate due to AI's relative novelty, legislative measures reflecting these philosophies have emerged globally. For instance, Canada's Bill C-27 adopts a rules-based framework with stringent requirements for data quality, transparency, and accountability (Ferguson & Whiteside, 2022; ISEDC, 2022), akin to the EU's Artificial Intelligence Act – the first compliance framework deployed since the advent of AI (European Parliament, 2023). Conversely, the UK's principles-based approach fosters

collaborative regulation between tech companies and the government, while the US's Blueprint for an AI Bill of Rights emphasizes core principles without overly prescriptive measures (Hine & Floridi, 2023). This diversity in regulatory approaches highlights the trade-offs of AI regulation: overly stringent rules may stifle innovation, while excessive flexibility can create regulatory uncertainty and lead to over-compliance – that is to say, AI companies might exceed regulatory mandates to avoid potential penalties (Barrowman et al., 2024; Crichlow, 2024).

At the national level, large-scale survey research reveals mixed global public opinion on AI, with optimism and skepticism varying by country (SRI, 2024). For example, while a slim majority of countries (51%) believe AI will improve the future, many Western countries – e.g., Australia, France, and the United States – remain uncertain or anticipate AI will negatively impact humanity. Trust in tech companies is similarly divided, with strong distrust particularly evident in India (65%), as well as in Australia, Kenya, Indonesia, and the United Kingdom. Interestingly, these feelings contrast with relatively high global trust for tech company involvement in the regulatory process; "... [this] discrepancy suggests that while the public may have reasons for supporting technology companies (for example, they are seen as having greater resources and among the highest level of knowledge about AI), this does not mean that the public supports technology companies in *fully* self-regulating or having too much control over regulatory processes" (105).

Undoubtedly, AI governance presents a complex challenge of balancing innovation with ethical and regulatory considerations. Public perceptions vary, with significant concerns about job security, privacy, and equitable access; regulatory approaches differ globally, reflecting diverse priorities and strategies. However, there remains a notable gap in the inclusion of

younger generations in these conversations – the consumers most familiar with and whose futures will be most affected by AI technologies (Crichlow, 2024).

Recognizing their proximity to and familiarity with AI, this pilot study aims to capture a small sample of university students' perspectives on AI and its regulation – a methodological precursor to our larger investigation. We seek to understand students' general sentiments towards AI, their perceptions of its impact on various aspects of life – particularly their legal rights – and their views on the necessity and effectiveness of AI regulation. We also aim to identify areas where participants feel most vulnerable to AI advancements and gather policy recommendations reflective of the younger generation's viewpoints. As such, the research addresses the following questions:

- What relationship do undergraduate students have with AI?
- In what ways do they perceive AI influencing their social life, legal rights, and career prospects?
- Do students believe AI should be regulated, and if so, how?
- Which regulatory bodies do students consider most effective for addressing AI issues related to privacy, data security, bias, and discrimination?

Ultimately, our pilot study seeks to bridge the gap between technological advancements and legal frameworks, ensuring that future regulations are both forward-looking and grounded in the practical realities faced by those most impacted by AI.

Hypotheses

We expect participant responses to reflect a balance between optimism about AI's capabilities and concerns about its broader societal impacts, with a preference for flexible and adaptive regulatory frameworks. As such, we examine the following hypotheses:

- H1: Participants will have a generally positive outlook on AI's potential future benefits.
- H2: Participants will express significant concerns about equitable access to AI
 technologies, fearing that disparities in access could exacerbate existing social
 inequalities.
- **H3:** Participants will have substantial apprehensions regarding the potential for AI to cause job displacement, particularly in industries susceptible to automation.
- H4: In alignment with prevailing regulatory trends, participants will prefer a principle-based approach to AI governance over a rules-based approach valuing flexible and adaptive regulatory frameworks.

Methods

Our pilot study employed a mixed-methods design, utilizing both quantitative and qualitative approaches to gather comprehensive data on young adults' perspectives on AI governance. Specifically, we administered an online survey via Qualtrics, incorporating a blend of multiple-choice and open-ended questions. Our instrument mirrored previously validated AI research questionnaires — with language adapted to reflect the Canadian context (Gherheş and Obrad, 2018; Ghotbi and Ho, 2021; Holmes and Anastopoulou, 2019; Jeong et al., 2023; Pinto dos Santos et al., 2018; SRI 2024; Teng et al., 2022).

Sample

We employed a convenience sampling method that engaged a small sample of five $(N = 5)^1$ Canadian respondents, ages 18-24 (see Table 1), residing in Toronto – a sampling methodology reflective of our pilot's pragmatic constraints. Respondents comprised the

¹ Our restricted sample size (N = 5) for the purpose of testing the survey instrument and gathering preliminary insights.

researcher's immediate social circle – specifically, students from the Department of Psychology at the University of Toronto Scarborough – and were selected based on their availability and willingness to participate. Respondents volunteered their time without remuneration or honorarium.

Table 1Participants' Ages

Age Range	18-24
Count	5

Note. Study participants were limited to a single age cohort (18-24).

Ethical Considerations

Informed consent was obtained from all participants prior to their participation in the survey. Participants were informed about the purpose of the study, their right to withdraw at any time, and the confidentiality of their responses.

Procedures

Qualified participants were prompted with survey questions designed to gauge their knowledge of AI, perceptions of its benefits and risks, preferences for regulatory approaches, and ideas about AI's societal impact. After responding to these questions of interest, participants completed a short questionnaire containing an attention check and standard demographic question items (i.e., ethnicity, age, gender, household income). Responses were collected, anonymized, and stored securely in the Qualtrics platform.

Data Analysis

Given the exploratory nature of this pilot study and the limited sample size, response analysis was primarily descriptive in nature – that is to say, we aimed to summarize and extract key insights from participant responses rather than perform inferential statistical tests. While we

anticipate using NVivo textual analysis software for our forthcoming dataset – where we anticipate attaining a sufficiently sized, representative, non-random sample (which can achieve saturation) – we focused on manual thematic analysis for this study, identifying key themes and trends.

We restricted the study's primary outcomes to participants' responses that most indicated their attitudes toward AI and their preferences for AI regulation. In practice, this involved aggregating and comparing responses specific to participants' beliefs about AI's societal impact, regulatory preferences, trust in various actors for AI governance, and perceived ethical and legal concerns (questionnaire items displayed in Figures 1-6). Additionally, we explored who participants believed would benefit most and least from AI advancements.

We also included questions to gauge participants' knowledge about AI, such as how informed they felt about AI, their primary sources of AI information, and their own usage of AI technology (e.g., ChatGPT, Microsoft Copilot, Google Gemini). These "knowledge" and "efficacy" questions provided context for interpreting participants' attitudes and preferences, ensuring a comprehensive understanding of their perspectives.

Results

Knowledge & Efficacy

On average, our sampled participants considered themselves "fairly informed" about AI.

Most participants reported that their primary sources of information regarding AI developments were the internet and acquaintances – reflecting the informal and self-directed nature of their AI education. Notably, all participants indicated (within the survey) that they had used some form of AI technology before participating in the study.

General Sentiments Towards AI

Uniformly, participants expressed a generally positive outlook on the potential benefits of AI – confirming the expectations of our hypothesis (H1). Thematically, responses centred around daily convenience – e.g., writing emails, reducing menial task load at work, conducting research, and as a "better version of Google." Notably, 80% of participants believed AI would positively impact society (see Figure 1).

Figure 1

AI Influence on Society

Do you believe that AI will have a positive influence on society?	
☐ Yes	
□ No	
☐ I'm not sure	
What do you think are the most important potential benefits of AI? (Write your response below)	

Note. Figure 1 displays the survey question prompts ascertaining participants' perceptions of AI's impact on society.

Ethical and Legal Concerns

In responses to open-ended questions gauging participants' ethical concerns regarding the application of AI (see Figure 2), participants highlighted biases in AI algorithms – e.g., "ChatGPT is censored" and "too woke" – the potential for AI misuse – e.g., "Deep Fakes" – and the lack of transparency in AI decision-making processes. Similarly, participants' legal-oriented concerns focused on the adequacy of current laws to regulate AI and protect individuals' rights – in particular, the right to privacy ("AI will [eventually] become Big Brother").

Figure 2

AI Concerns

Vhat (if anv) lega	concerns do you think there are around the application of AI? (Write your response below)
Vhat (if any) lega	concerns do you think there are around the application of AI? (Write your response below)
What (if any) lega	concerns do you think there are around the application of AI? (Write your response below)

Note. Figure 2 showcases open-ended questions designed to capture a range of participant concerns.

Equitable Access and Job Displacement

Participants uniformly expressed worries concerning equitable access to AI technologies, fearing that their access to AI would be restricted *and* that there would be uneven access – confirming our expectations (H2) (see Figure 3 for multiple-choice and open-ended question prompts).

In addition, four of five participants expressed concerns about AI's impact on jobs and violating citizens' privacy – largely confirming our hypothesis (H3). Open-ended responses also indicated apprehension about potential job displacement – particularly in industries susceptible to automation (i.e., manufacturing, customer service, and the food-service industry). Interestingly, the majority of participants' concerns on who would most benefit from AI advancements highlighted socioeconomic dimensions – specifically citing large corporations, technology companies, and affluent individuals as the primary beneficiaries.

Figure 3 *Primary Concerns and Beneficiaries of AI*

TI	ninking of the potential impact of AI in the next few years, what are you most concerned about? (Select all that apply)
С	Misuse/use for nefarious purposes
С	Impact of AI on jobs
С	Violation of citizen's privacy
С	Dehumanization of services
С	Lack of transparency in decision-making
С	Impacts of AI on education
С	Ethical implications
С	Accuracy of results and analysis
С	Uneven access to Al
С	Potential for bias an discrimination
С	My own ability to use AI
V	What do you think are the most important potential risks of AI? (Write your response below)
۷	Who, if anyone, do you think will most benefit from AI? (Write your response below)

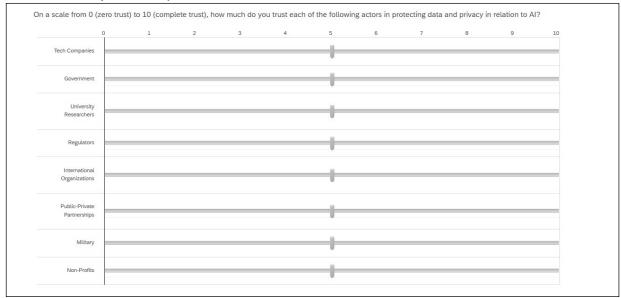
Note. Figure 3 showcases questions designed to identify perceived beneficiaries and participants' primary concerns about AI.

Protecting Data and Privacy

When prompted to indicate their trust in various actors to protect data and privacy (in relation to AI), participants' aggregate responses – recorded via a 10-point Likert sliding scale (see Figure 4) – showed high trust in government, regulators and public-private partnerships. Conversely, participants expressed exceptionally low trust in tech companies and the military (see Table 1 for descriptive statistics).

Figure 4

Trusted Actors for Privacy and Data Protection



Note. Figure 4 details the assessment of participant trust in actors' abilities to protect consumer data and privacy.

Table 1 *Trusted Actors for Privacy and Data Protection: Descriptive Statistics*

Actor	Mean Score
Tech Companies	1.8
Government	7.8
University Researchers	6.4
Regulators	8.2
International Organizations	5.4
Public-Private Partnerships	7.4
Military	2.8
Non-Profits	6.4

Note. Mean scores indicate participants' (N = 5) aggregated average responses to the 10-point Likert scale detailed in Figure 4.

Trusted Actors for AI Regulation

When asked which three actors they believed were best suited to contribute to AI regulation discussions, participants predominantly chose government, regulators, and public-private partnerships – thematically, formal institutions and collaborative efforts for developing or enforcing AI governance.

Figure 5

Preferred Actors for AI Regulation

In	your opinion, which of the following actors is best suited to contribute to AI regulation discussions? (Select up to three)
	Tech Companies
	Government
	University Researchers
	Regulators
	International Organizations
	Public-Private Partnerships
	Military
	Non-Profits
	I'm not sure

Note. Figure 5 details the assessment of participant trust in potential actors acting as regulatory discussants.

Opinions on Regulatory Frameworks

In response to our regulatory approaches prompt (see Figure 6), four out of five participants (80%) preferred a rules-based approach to AI governance over a principles-based approach. Seemingly, participants were disinclined to select the prevailing regulatory principle-based philosophy found worldwide (Crichlow, 2024) – in contravention of our expectations (H4).

Figure 6

When considering regulations for AI, which of the following statements best aligns with your perspective?

I prefer a system where clear, detailed rules outline what is required to ensure compliance and prevent misuse of AI.

I prefer a system that emphasizes broad principles such as ethical use and transparency, allowing for flexibility in how these are achieved.

Other (please specify):

Note. Figure 6 details the assessment of participant preferences for existing regulatory frameworks.

Discussion

The results of this pilot study capture a small but nuanced view of young adults' perspectives on AI governance, highlighting a mix of optimism about AI's potential benefits and significant concerns about its risks. These findings largely align with existing AI literature, confirming that while young adults recognize the transformative power of AI, they are cautious about its implications for job security, equitable access, and ethical governance. However, within our sample, we find that participants favour a rules-based approach to AI regulation over principles-based frameworks – in contrast to recent findings (SRI, 2024) and favoured regulatory trends (Crichlow, 2024).

Optimism and Caution

While national-level polls reveal a divide regarding AI's impact on humanity's future (SRI, 2024), our study's findings align with prior targeted research, indicating widespread optimism about AI's potential to enhance various sectors – such as healthcare, education, and daily convenience (Gherheş and Obrad, 2018; Ghotbi and Ho, 2021; Holmes and Anastopoulou, 2019; Jeong et al., 2023; Pinto dos Santos et al., 2018; Teng et al., 2022). However, the simultaneous expression of concern about job displacement and privacy issues underscores the need for balanced and comprehensive AI policies that address both opportunities and risks. This dual perspective suggests that while young adults are hopeful about AI's benefits, they remain vigilant about its potential downsides.

Equitable Access and Socioeconomic Disparities

Concerns about equitable access to AI technologies underscore the critical need for policies that ensure all societal segments benefit from AI advancements. Participants' fears of restricted and uneven access to AI highlight the urgency for inclusive strategies that prevent the

exacerbation of existing inequalities. Developing policies that promote widespread AI literacy and accessibility can mitigate these fears and enhance public trust – ensuring that AI technologies serve to bridge, rather than widen, socioeconomic gaps.

Preference for Rules-Based Governance

A notable finding of this study is the participants' strong preference for a rules-based approach to AI governance despite the broader trend in AI governance favouring principles-based frameworks (Crichlow, 2024). This inclination towards clear, enforceable regulations suggests a desire for transparency and accountability in AI operations among the younger generation. Conceivably, this preference could reflect a significant lack of trust in the current self-regulatory practices of tech companies, exacerbated by frequent data breaches widely publicized in the media (Drapkin, 2023). Alternatively, the observed belief among our sample participants that the primary beneficiaries of AI advancements are the affluent – who comprise executive roles in these companies – likely contributes to this skepticism. Regardless, regulators must consider the priorities of the younger generation, even if they diverge from prevailing regulatory philosophies.

Actors for AI Regulation

Participants predominantly selected government, regulators, and public-private partnerships as the most suitable entities to contribute to AI regulation discussions. This preference for formal institutions and collaborative efforts likely reflects a desire for structured and accountable governance. Trust in these actors suggests that young adults believe that a multistakeholder approach – involving both public and private sectors – is essential for developing effective AI regulations that align with public interests.

Ethical and Legal Concerns

Our study revealed significant ethical and legal concerns among participants, including biases in AI algorithms, potential misuse, and a lack of transparency in AI decision-making processes. Respondents emphasized the inadequacy of current laws in regulating AI and protecting individual rights, particularly concerning privacy and surveillance. Addressing these issues requires comprehensive ethical guidelines and robust legal frameworks to ensure responsible AI development and deployment.

Policy Recommendations

Recognizing the limited scope of our study, we propose the following policy recommendations based on our preliminary findings:

- Inclusive AI Policies: Develop policies that ensure equitable access to AI technologies, focusing on mitigating social inequalities – by fostering programs that promote AI literacy and access across different socioeconomic groups.
- Clear Regulatory Frameworks: Implement rules-based governance frameworks that
 provide clear, enforceable regulations to ensure transparency and accountability –
 including stringent compliance measures and oversight mechanisms to prevent misuse
 and ensure ethical operations.
- Public Engagement: Foster public engagement and education on AI to build trust and
 ensure that governance frameworks reflect public concerns and values. This could
 involve creating platforms for public discourse and incorporating public feedback or
 engaging student representatives in the policy development process.

Limitations

By nature, our study design imposed several limitations that affect the generalizability of our findings. Undoubtedly, the small sample size of five participants inherently limits the scope of our conclusions. Moreover, our use of a non-random convenience sampling method could not adequately control for sampling biases – given that participants were selected solely based on their availability and willingness to participate. Although this methodology was suitable for testing our study instrument, the views expressed by our participants may not accurately reflect those of the broader population.

Conclusion

The results from our study provide valuable initial insights into young adults' perspectives on AI governance. We believe our instrument is well-suited for a larger-scale study and offers a strong foundation for a more in-depth understanding of these perspectives. Future research should build on these preliminary findings, incorporating a broader and more diverse sample to ensure comprehensive and representative insights into public attitudes toward AI and its regulation.

References

- Barrowman, C., Ritchie, L. E., & Bruschetta, L. (2024, April 26). *OSC Burden Reduction Initiative Rules-based versus principle-based Regulation*. Osler, Hoskin & Harcourt

 LLP. https://www.osler.com/en/insights/blogs/risk/osc-burden-reduction-initiative-rules-based-versus-principle-based-regulation/
- Burt, A. (2019, December 13). *The AI Transparency Paradox*. Harvard Business Review. https://hbr.org/2019/12/the-ai-transparency-paradox
- Crichlow, Monique. 2024. "Responsible AI." Presented at the IMI BigDataAIHUB Seminar Series, University of Toronto, Mississauga, ON, April 17.

 https://www.utm.utoronto.ca/bigdataaihub/events/imi-bigdataaihub-seminar-series/responsible-ai.
- Drapkin, A. (2023, January 30). *Data breaches that have happened in 2022-2024*. Tech.co. https://tech.co/news/data-breaches-updated-list
- European Parliament. (2023, June 8). *EU AI Act: First Regulation on Artificial Intelligence*. https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence
- Ferguson, C., & Whiteside, H. (2022). The Regulation of Artificial Intelligence in Canada and Abroad: Comparing the Proposed AIDA and EU AI Act. Fasken.

 https://www.fasken.com/en/knowledge/2022/10/18-the-regulation-of-artificial-intelligence-in-canada-and-abroad
- Gherheş, V., & Obrad, C. (2018). Technical and Humanities Students' Perspectives on the Development and Sustainability of Artificial Intelligence (AI). *Sustainability*, *10*(3066), 1–16. https://doi.org/10.3390/su10093066

- Ghotbi, N., & Ho, M. T. (2021). Moral Awareness of College Students regarding Artificial Intelligence. *Asian Bioethics Review*, *13*(4), 421–433. https://doi.org/10.1007/s41649-021-00182-2
- Heikkilä, M. (2023). *It's High Time for More AI Transparency*. MIT Technology Review. https://www.technologyreview.com/2023/07/25/1076698/its-high-time-for-more-ai-transparency/
- Hine, E., & Floridi, L. (2023). The Blueprint for an AI Bill of Rights: in Search of Enaction, at Risk of Inaction. *Minds and Machines*. https://doi.org/10.1007/s11023-023-09625-1
- Holmes, W., & Anastopoulou, S. (2019). What Do Students at Distance Universities Think about AI? *ACM Conference*. https://doi.org/10.1145/3330430.3333659
- Innovation, Science and Economic Development Canada. (2022, June 16). *Bill summary: Digital Charter Implementation Act, 2022*. Government of Canada. https://ised-isde.canada.ca/site/innovation-better-canada/en/canadas-digital-charter/bill-summary-digital-charter-implementation-act-2020
- Jeong, H., Han, S., Kim, K., Park, I., Choi, Y., & Jeon, K. J. (2023). Korean Dental Hygiene Students' Perceptions and Attitudes toward Artificial intelligence: an Online Survey. *Journal of Dental Education*. https://doi.org/10.1002/jdd.13189
- Pinto dos Santos, D., Giese, D., Brodehl, S., Chon, S. H., Staab, W., Kleinert, R., Maintz, D., & Baeßler, B. (2018). Medical students' Attitude Towards Artificial intelligence: a Multicentre Survey. *European Radiology*, 29(4), 1640–1646. https://doi.org/10.1007/s00330-018-5601-1

- Schwartz Reisman Institute for Technology and Society. (2024). SRI/PEARL Survey Now published, Reveals Worldwide Public Opinion about AI. Schwartz Reisman Institute. https://srinstitute.utoronto.ca/news/public-opinion-ai-survey-24
- Teng, M., Singla, R., Yau, O., Lamoureux, D., Gupta, A., Hu, Z., Hu, R., Aissiou, A., Eaton, S.,
 Hamm, C., Hu, S., Kelly, D., MacMillan, K. M., Malik, S., Mazzoli, V., Teng, Y.-W.,
 Laricheva, M., Jarus, T., & Field, T. S. (2022). Health Care Students' Perspectives on
 Artificial Intelligence: Countrywide Survey in Canada. *JMIR Medical Education*, 8(1),
 1–17. https://doi.org/10.2196/33390
- Weber, T. (2023, December 5). *Artificial Intelligence and the Law*. Stanford Law School. https://law.stanford.edu/stanford-lawyer/articles/artificial-intelligence-and-the-law/

Appendix

Online Survey Questionnaire

The subsequent pages of this Appendix showcase the battery of questions presented to participants in the study. To ensure participant confidentiality, no identifiable information about participants was recorded in the dataset.

Participants saw one question per page and were unable to see variable names, encodings, or Qualtrics survey flow details – which have been included in this Appendix for reference.