

Mitacs's Policy on the Use of Artificial Intelligence in Proposal Development and Review



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Artificial Intelligence (AI) is a consideration for research and innovation projects with respect to both the use of generative AI in the preparation and review of a project proposal, and the responsible use of AI in the project itself. This policy is concerned with the former, although all proposals submitted to Mitacs must also consider the latter, as it may relate to <u>Mitacs' Responsible Conduct of Research Policy</u>.

Introduction

Al breakthroughs and its applications have great potential to help expand Canada's innovation capacity but have also raised concerns in the review of funding proposals that have leveraged generative AI in developing and writing those proposals.

Advancements in <u>generative AI</u> using <u>Large Language Models (LLMs</u>) have enabled widespread use of these tools to generate fluent text resembling that of a human author. Such tools can be used to produce reviews, summaries, reports, and research proposals across all topics in response to a human prompt. The increase in output quality of these systems brings both benefits and risks, which must be considered in the evaluation of funding proposals by Mitacs.

This policy is informed by best practices, policies, and reports from the <u>Government of Canada</u> including the <u>Guide on the use of generative AI</u>, <u>The Artificial Intelligence and Data Act (AIDA)</u>, and the <u>Draft</u> guidance on the use of artificial intelligence in the development and review of research grant proposals.

Mitacs's policy on the use of AI in proposal development and review is not intended to eliminate nor penalize the use of generative <u>AI system</u>. Rather, this policy aims to uphold high standards of research rigour and quality that are responsive to the changing technological landscape and to ensure that Mitacs projects continue to benefit academics, organizations, interns, and Canada in accordance with Mitacs's mission. This includes ensuring a review process that supports funding decisions that are fair, transparent, and unbiased in cases where generative AI has been used.

Guidelines for the Use of Generative AI in the development of Mitacs Proposals:

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Responsibilities of Applicants:

Mitacs expects all project participants who use generative AI to develop or write a proposal for Mitacs funding to familiarize themselves with the **FASTER principles of AI** (i.e., Fair, Accountable, Secure, Transparent, Educated, Relevant), as adopted by the Treasury Board of Canada Secretariat (see Appendix A) and to incorporate them appropriately when preparing their proposal.

Specifically, applicants are required to:

- Frame their work within the context of the discipline, identify current knowledge gaps, and adhere to established academic standards of properly attributing ideas to originators, such as citing references, and obtaining any necessary permissions when published content is reproduced. Literature references must be accurate and include recent developments in the field.
- Devise original research questions, innovation challenges, and objectives, and provide sufficient methodological information to allow a feasibility assessment by experts in the field.
- Prepare succinct text, focusing on information relevant to the proposed project/internships, and avoid the vague descriptions and repetition of general definitions typically generated by AI.
- Avoid inputting confidential/proprietary information in generative AI systems, considering that these platforms cannot guarantee security or privacy and therefore present a potential risk of data breaches or leaks.

(For additional information, see: <u>The use of generative artificial intelligence in the development and</u> review of research proposals (science.gc.ca))

Applicants to Mitacs programs are ultimately responsible and accountable for the content of proposals submitted to Mitacs, including ensuring the accuracy of all information included in the submission and the originality and novelty of the presented project. In all cases, applicants are expected to adhere to <u>Mitacs's Responsible Conduct of Research Policy</u>, which outlines Mitacs's requirements for eligible research and research integrity, and to other Mitacs policies, as applicable, when applying to our programs.

Responsibilities of Reviewers:

Reviewers are asked to consider the potential impact of generative AI in the preparation and development of a proposal and in consideration of the validity of research proposals under review for Mitacs funding.

Mitacs's funding decisions are informed by the assessment of the project (which includes the proposal text itself) by qualified subject matter experts. While these evaluations are provided on a voluntary basis, reviewers are mandated to respect all applicable Mitacs and Tri-Agency Framework policies regarding research integrity, data security and privacy, and the protection of intellectual property. Each reviewer

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must agree to Mitacs's confidentiality statement before being granted access to a proposal. This includes agreeing to not disclose any information in proposals to anyone and to not input any part of the proposal into generative AI systems, considering the potential risk of data breaches or leaks. In agreeing to this statement, reviewers are also asked to abide by the **FASTER principles** (see Appendix A) as relevant for completing their evaluation.

Responsibilities of Mitacs:

In accordance with its <u>corporate policies</u>, Mitacs is committed to ensuring fairness, transparency, accountability, and timeliness throughout the adjudication process. Mitacs will direct applicants and reviewers to familiarize themselves with this policy and their responsibilities outlined therein.

Appendix A: FASTER Principles for the Responsible Use of AI

The <u>Treasury Board of Canada Secretariat</u> has adopted the following **FASTER** principles for Responsible use of AI:

- Fair: ensure that content from these tools does not include or amplify biases and that it complies with human rights, accessibility, and procedural and substantive fairness obligations; engage with affected stakeholders before deployment
- Accountable: take responsibility for the content generated by these tools and the impacts of their use. This includes making sure generated content is accurate, legal, ethical, and compliant with the terms of use; establish monitoring and oversight mechanisms
- **Secure:** ensure that the infrastructure and tools are appropriate for the security classification of the information and that privacy and personal information are protected; assess and manage cyber security risks and robustness when deploying a system
- **Transparent:** identify content that has been produced using generative AI; notify users that they are interacting with an AI tool; provide information on institutional policies, appropriate use, training data and the model when deploying these tools; document decisions and be able to provide explanations if tools are used to support decision-making
- **Educated:** learn about the strengths, limitations and responsible use of the tools; learn how to create effective prompts and to identify potential weaknesses in the outputs
- **Relevant:** make sure the use of generative AI tools supports user and organizational needs and contributes to better outcomes for clients; consider the environmental impacts when choosing to use a tool; identify appropriate tools for the task; AI tools aren't the best choice in every situation

Thanks to our funding partners.

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