

STEM YOUTH AWARENESS PROGRAM: DIGITAL AND TECHNOLOGY AWARENESS

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# STEM Youth Awareness Program November 2020



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#### 1. Introduction

One of Scale Al's strategic objectives is to establish an ecosystem that positions Canada as one of the world leaders in artificial intelligence (Al) and Al applied to supply chains. Building such an ecosystem requires a skilled workforce with advanced knowledge and abilities in Al, and in digital intelligence. To remain competitive in a market continually disrupted by technological evolution, a long-term action plan is required.

To stay a ahead of the curve and ensure the sustainability of our positioning, it is essential that we return to the source — that is, youth from all backgrounds — to raise awareness of career opportunities in science, technology, engineering and mathematics (STEM). This is why such an initiative goes hand in hand with Scale Al's mission. Not only will the STEM Youth Awareness Program add value to the Scale Al ecosystem, but it will also act as a retention hub for Canada's future workforce.

The rapid integration of technology in the marketplace has led to an increase in demand for a workforce that possesses a skill set, most notably in AI, digital intelligence (DI) and supply chains. With the desire to anticipate future needs, Scale AI is launching the STEM Youth Awareness Program, aimed at stimulating youths' interest in digital technologies and encouraging them to pursue university studies and careers in one of the aforementioned STEM fields.

Scale AI will use an evaluation grid to rate each proposed project and initiative. This evaluation grid may be subject to modifications throughout Scale AI's training program in order to improve and better reflect the strategic priorities of the STEM Youth Awareness Program. If a project has been denied funding prior to these modifications, it will be reassessed in the event that these changes might result in project approval.

This document outlines the structure of the STEM Youth Awareness Program.

## 2. Scale Al Definitions

#### Organization

NPOs, Canadian educational institutions, public bodies such as: school service centres (former school boards), or municipalities in Canada. The Organization is the main signatory of the STEM Youth Awareness Program agreement.

#### Participants / Students

Individuals benefiting from the awareness program: individuals enrolled in a Canadian preuniversity school (elementary, secondary or college).

#### Facilitator

An individual based and employed in Canada with the expertise to lead digital technology awareness workshops for youths.

#### STEM Youth Awareness Project (artificial and digital intelligence)

Project or workshop on digital technological awareness, mentoring, extracurricular coaching.

#### Scale AI team

The Scale AI team works with organizations throughout the lifecycle of the program. Members assess the eligibility of proposed projects in collaboration with participating partner organizations and other parties.

## Project Selection and Prioritization Committee

The committee includes members of Scale Al's management, independent advisors and experts from the business and scientific communities. Their role is to review projects in order to present them to the ratification committee.

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## **Project Ratification Committee**

The ratification committee includes members who are neither executives nor employees of Scale AI and who have at least one seat on Scale AI's board of directors. Their role is to review projects suggested by the selection committee, in order to approve or reject them.

## 3. STEM Youth Awareness Program Structure

Scale AI will invest up to \$1 million by March 31, 2023 in the STEM Youth Awareness Program. The program aims to educate 12,000 youths about digital intelligence and various STEM programs through school and extracurricular activities.

The Scale AI team will also make every effort to ensure the visibility of the program among potentially beneficiary organizations. Additionally, the Scale AI team will work with organizations across Canada to ensure that the program is accessible to the maximum number of youths from all backgrounds.

Subsequently, with the assistance of the selection and ratification committees, projects will be approved by Scale AI based on their quality and compliance with the selection criteria. To obtain the full grant, the organization must submit a detailed report at the end of the project.

Scale Al agrees to reimburse the costs associated with the projects selected for the STEM Youth Awareness Program.

a. An organization can receive up to 100% of eligible costs. Scale Al will advance up to 50% of these costs at the start of the program and remit the balance at the end of the project, after costing and submission of all supporting documents.

## 4. Selection Process for the STEM Youth Awareness Program

Scale Al follows a neutral and transparent process when analyzing requests for submissions for financial assistance. Projects are first screened for eligibility and then selected based on specific prioritization criteria. All projects must be approved by the ratification committee on the recommendation of the selection committee.

#### Phase 1: Eligibility

Submissions are evaluated by the Scale AI team upon receipt. After this analysis, successful applicants will be required to provide additional details about their projects. This will allow for a more in-depth assessment of the quality of the project. Eligibility is a quick and easy step that ensures the project meets Scale AI's minimum requirements.

#### Contents of the eligibility request form

- 1. Project overview
  - a. Brief description of the project.
- 2. Organization
  - a. Type of organization.
  - b. Description of the organization and other partners implicated.
  - c. Contact information and contacts.
- 3. Target audience
  - a. Profile of participants.

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- 4. Impact
  - a. Desired impact of the project.
- Schedule
  - a. Project duration, dates and milestones.
- 6. Funding
  - a. The main costs of the project.
  - b. Request for funding from Scale Al.
  - c. Source of project funding (including partners).

#### Eligibility criteria for the program

The eligibility criteria ensure that the **STEM Youth Awareness Project** meets Scale Al's minimum requirements. The eligibility criteria ensure that the STEM Youth Awareness Project meets Scale Al's minimum requirements.

- 1. STEM Youth Awareness Project
  - a. The overall project
    - i. The STEM Youth Awareness Project must be aligned with Scale Al's strategy.
  - b. Organization
    - i. The organization is a Canadian institution.
    - ii. The organization must be able to provide the necessary guidance to deliver the expected results.
  - c. Curriculum
    - i. Support STEM and digital technology awareness projects.
    - ii. Stimulate interest among youths in digital technologies or artificial intelligence.
  - d. Beneficiaries
    - i. Participants: elementary school, secondary school and college students.
  - e. Activity locations
    - i. The project activities must take place in Canada.
  - f. Schedule
    - i. Approved projects must be conducted within a reasonable time frame following the approvals of the selection and ratification committees.

## Phase 2: Selection and prioritization

During this phase, the organization will work with the Scale AI team to further develop the project details for the STEM Youth Awareness Program submission request. The project will be submitted to the Scale AI program selection and prioritization committee for evaluation. Submitted proposals are prioritized based on responses to the selection criteria listed below.

- 1. Details of the project submission form
  - a. Overview
    - i. Executive summary
    - ii. Key information
      - 1. Number of participants involved.
      - 2. Profile of participants.

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- 3. Duration of the project (number of hours/days).
- 4. Amount of the requested grant.
- 5. Participation fees, if applicable.

#### b. Detailed description of the project

- i. Context and description of the project.
- ii. Structure, content and methodology of the awareness activity.
- iii. Learning objectives and expected results.
- iv. Project relevance: The project must meet the needs and identity of the organization

## c. Incrementality

- i. Existing projects: Programs already in operation and which aim to increase their number of participants.
- ii. New initiatives that address a need for the STEM Youth Awareness Program.

## d. Organization

- i. The location of the activity.
- ii. Link with the educational background of the targeted participants.
- iii. List of facilitators, their qualifications and relevant experiences.
- iv. List of similar experiences: credibility of the organization to implement the project.

## e. Impacts

- i. Expectations and beneficial impacts for the organization and participants.
- ii. For the ecosystem in Canada.
- iii. Scale Al Support: Description of impact in relation to the extent of Scale Al's involvement and contribution to the program.

#### f. Schedule

i. The duration and stages of the project, the deadlines to be respected.

## g. Funding

- i. Detailed project costs.
- ii. If applicable, other sources of funding, including private funding.
- iii. Total grant requested from Scale AI.

#### 2. Detailed selection criteria for the application

Scale AI undertakes to funding projects whose mission is to engage Canadian youth in a digital intelligence focused program. As a result, projects proposed under the STEM Youth Awareness Program must meet certain requirements in terms of sustainability and contribution to the ecosystem. Organizations must submit STEM Youth Awareness Projects to Scale AI. All proposals are evaluated according to the same criteria, in order to ensure a fair and relevant use of Scale AI funds. Scale AI uses the following categories to determine the quality as well as the social and ecosystem impact of each project on the program.

- a. Organization and quality of the proposed project
  - i. Relevance of the organization and qualifications of the facilitators.
  - ii. Content of the activity and project structure.
  - iii. Funding requested and anticipated results (e.g., number of participants).
- b. Alignment with Scale Al's strategic plan
  - i. Overview and accessibility.
  - ii. Curriculum: content designed to stimulate technological and digital awareness.
  - iii. Mission: to encourage young people to pursue studies in STEM and a career in science and technology.

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- c. Positive impacts
  - i. Promotes collaboration and sharing of resources and knowledge between organizations.
  - ii. Raises awareness among youths about digital technology.
  - iii. Promotes equity, diversity and inclusion (EDI)
    - 1. accessible to all social backgrounds.
    - 2. prioritizes inclusive and gender-balanced projects.

Scale AI uses an evaluation grid to evaluate STEM Youth Awareness Program projects. The evaluation criteria are distributed as follows: organization and quality of the proposed project, 50 points; alignment with Scale A's strategic plan, 30 points; positive impacts, 20 points; for a total of 100%. This scoring grid may be modified over time to better reflect Scale AI's strategic priorities. If a project has been denied funding prior to these modifications, it will be reassessed in the event that these changes might result in project approval.

### Phase 3: Submitting an Application to Scale Al

Before being accredited by Scale AI, the organization must submit a project to the STEM Youth Awareness Program. The project must be deemed compliant and be recommended by the selection and prioritization committee to the ratification committee, which approves it or not. Submissions can be made throughout the duration of the STEM Youth Awareness Program. The organization must make one application per project.

The Scale AI team supports the submitting organizations throughout the process. The objective is to guide them to ensure a quality project submission. The selection and prioritization committee assesses eligible STEM Youth Awareness Projects and makes recommendations to the ratification committee. The latter is responsible for approving (or not) the projects recommended by the selection and prioritization committee. Roles and responsibilities are defined as follows:

- i. The Scale AI team
  - 1. The Scale AI team assesses the eligibility of the project submission to the STEM Youth Awareness Program and presents its analysis to the selection and prioritization committee for selection.
  - 2. The Scale AI team takes a proactive, supportive and inclusive approach when interacting with organizations that submit projects. Organizations are supported and advised throughout this process.
- ii. Selection and prioritization committee
  - 1. The selection and prioritization committee is composed of a minimum of six people and a maximum of ten people, with the objective of representing 50% of the management of Scale Al and 50% of independent advisors with relevant technical, scientific, intellectual property (IP) and educational expertise, particularly in the field of Al. The selection and prioritization committee is appointed by the Board of Directors on the recommendation of the CEO of Scale Al. The selection and prioritization committee will meet formally at least once a month, or more if the committee chair deems it necessary. The committee's decision is based on the majority of votes of those present.
  - 2. The role of the selection and prioritization committee is to ensure that it selects only those projects that meet the objectives of Scale AI. The responsibilities of the selection and prioritization committee are to evaluate the projects presented to it by the Scale AI team and to ensure that they meet the objectives of Scale AI. The selection and prioritization committee recommends

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STEM Youth Awareness Projects to the ratification committee for funding approval or not.

Each member of the selection and prioritization committee must comply with Scale Al's code of ethics at all times, including the rules regarding conflicts of interest.

#### iii. Ratification committee

- 1. The ratification committee approves the STEM Youth Awareness Projects recommended by the selection and prioritization committee.
- 2. In terms of project funding, the ratification committee is responsible:
  - To accept (or not accept) all or some of the projects whose funding is recommended by the selection and prioritization committee, with or without additional conditions to be met.
  - b. To approve funding or co-funding as recommended by the selection and prioritization committee.
  - c. To ensure that the project selection process has been conducted in accordance with program guidelines.
  - d. To comply at all times with Scale Al's code of ethics, including possible conflicts of interest.
  - e. To assess all submission requests and stay abreast of potential issues in the selection process.
  - f. For any other questions requested by Scale AI, the selection and prioritization committee or the Board of Directors of Scale AI.
- 3. The ratification committee cannot approve a STEM Youth Awareness Project that has not been selected and recommended by the selection and prioritization committee.

## Phase 4: Financial agreement

Once a project is approved by both committees, the organization managing the project and Scale Al must sign a formal financial agreement. Scale Al will provide a template for the financial agreement. One agreement per project is required.

## **Phase 5: Execution of Operations**

After both parties have signed the financial agreement, the first instalment, representing 50% of the approved fees, can be advanced to the organization. To receive the balance of the reimbursement, an end-of-project report with supporting invoices must be submitted to the Scale AI team on the previously agreed date. Scale AI will use this report to evaluate the project's performance.

As with all funded projects, Scale AI will maintain the right to oversee STEM Youth Awareness Projects throughout the process. The organization must carry out its project according to the expectations of the STEM Youth Awareness Program and as described in the submission approved by Scale AI and in the agreement signed between the organization and Scale AI.

Once the final report is submitted, Scale AI will conduct several audits on the costs and the achievement of objectives as described in the detailed submission and the signed agreement. If necessary, Scale AI will adjust the amount reimbursed to the STEM Youth Awareness Program.

The renewal of the STEM Youth Awareness Projects will be evaluated according to the performance of the project and the achievement of their objectives. However, if an organization wishes to renew a grant application, it will have to repeat the process from the beginning and complete a new application form for the said project.

The definitions of the reimbursement and reporting processes are as follows:

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- a. Funding terms for certified projects
  - i. Certified organizations will be allocated the approved amount only after receipt of the requested reports.
  - ii. Scale Al will fund the agreed amount only to organizations that have completed their certified projects.
- b. Funding schedule
  - Scale Al will provide an advance of up to 50% of the amount allocated at the start of the project. The balance will be paid after receipt and validation of the final report and an expenditure justification report.
- c. Project evaluation
  - A final report must be submitted to Scale AI at the end of the project to assess the overall results and the beneficial impacts achieved.
- d. Performance indicator (KPI)
  - i. All STEM Youth Awareness Projects will be required to follow certain performance indicators (KPIs). The list of KPIs will be included in the financial agreement for the STEM Youth Awareness Program (annex, page 12).

### 5. How the program works

As part of the STEM Youth Awareness Program, organizations must act as catalysts and promote awareness and development of AI and digital technology among Canadian youth.

Organizations will be expected to meet their respective goals in accordance with the STEM Youth Awareness Program and will need to become active members within the Scale AI ecosystem by participating in Scale AI events and initiatives.

# 6. Intellectual property

Neither Scale AI nor the government will hold or receive an intellectual property license generated for a project funded by Scale AI.

However, Scale Al's primary objective as a supercluster is to make the IP licenses generated using Scale Al funds available for use by the Scale Al member ecosystem. The organization's proposed IP sharing policies will be evaluated during Scale Al's detailed submission process.

Concretely, this means that:

- i. The topic of the workshops and the associated intellectual property generated as part of the project will appear in the confidential registry of the Scale AI supercluster. Other members of the Scale AI ecosystem may be able to understand, at a high level, the nature of the subject matter of the project and the IP generated so that they can assess their interest in it; and
- iii. The organization (or the owner of the intellectual property generated) will agree to participate in negotiations in good faith at the request of another member of the Scale AI ecosystem to grant access to the content of a project and the IP for use by that member on commercially reasonable terms (i.e., the organization may charge a reasonable license fee to grant such access). Given that the use of the new IP by the Scale AI ecosystem is one of the key objectives of Scale AI, free access by other Scale AI members to project materials and IP for projects will be strongly encouraged by Scale AI, in particular when the purpose of the workshops or the IP can be used by Scale AI members as part of a STEM Youth Awareness Project.

## 7. Stages of project implementation

These stages are mandatory for all projects under the STEM Youth Awareness Program:

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- a. Eligibility submission: The organization must submit an eligibility form for the STEM Youth Awareness Program.
- b. Confirmation of eligibility: The Scale AI team must confirm that a project under the STEM Youth Awareness Program is eligible for funding from Scale AI (i.e. it meets Scale AI's topline objectives).
- c. Detailed proposal submission: The organization must submit a proposal for a digital intelligence awareness workshop.
- d. Approvals by the leadership of the organization concerned: All approvals required to launch the STEM Youth Awareness Program have been obtained (e.g., finance, compliance, partners and executive committees).
- e. Scale Al's selection and prioritization committee evaluates STEM Youth Awareness Projects for selection and recommendation to the ratification committee.
- f. The Scale AI ratification Committee approves (or not) the recommendations of the selection and prioritization committee for project funding.
- g. Scale Al communicates the decisions of the selection and ratification committees to the awareness program organization.
- h. The financial agreement for a STEM Youth Awareness Program project is signed by the organization and Scale AI.
- i. The Scale AI membership agreement is signed by the organization and Scale AI, unless the organization is already a member of Scale AI.
- j. The project is launched
  - i. STEM Youth Awareness Program; the organization is responsible for:
    - 1. Applying for reimbursement at the start (if necessary) of the project.
    - 2. Provide a final progress report and a reimbursement request to Scale Al.
    - 3. Scale Al validates and reimburses final eligible expenses.
    - 4. The STEM Youth Awareness Program ends on March 31, 2023 and any expenses incurred after this date will not be reimbursed.

## 8. Funding

To receive funding from Scale AI, eligible costs for the STEM Youth Awareness Program must comply with the project's financial agreement and the allocated budget. This includes expenses incurred in Canada on activities that meet Scale AI's funding guidelines. The exact list of eligible expenses will be included in the financial agreement, but here is an overview of the eligible cost categories:

STEM Youth Awareness Program (up to 100%):

- 1. Events related to the project.
- 2. Delivery of activities.
- 3. Office/school supplies and equipment distributed to participants related to the project.
- 4. Reproduction of educational materials (e.g. exercises, articles, case studies, etc.)
- 5. Copyright fees (academic).
- 6. Travel, accommodation and meal expenses for facilitators.

Note that capital investments, investment losses, taxes, fines and penalties, depreciation, gifts, entertainment, legal fees, in-kind contributions and other expenses will not be eligible for reimbursement under this program.

# 9. Funding Requirements and Management

a. Requirements for cost reimbursement

Scale Al funds will be available for the reimbursement for eligible costs incurred by the organization. In accordance with Scale Al's funding guidelines, this amount must be in line with the maximum amount agreed in the STEM Youth Awareness Program agreement.

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### b. Conditions for Accessing Scale Al Funds

Before Scale AI can make the funds available, the organization must submit requests for reimbursement of expenses incurred along with appropriate evidence and progress reports at the agreed intervals specified in the STEM Youth Awareness Program financial agreement. Funds will be released when Scale AI verifies and validates the information submitted.

#### 10. Annexes

a. Key performance indicators (KPIs)

Scale AI will evaluate projects based on the participant satisfaction and the impact of the program. The indicators could be modified and, in this case, will be announced to better reflect the strategic priorities of the STEM Youth Awareness Program over time.

KPIs will be logged by the organizations and reported to Scale Al during the program and for the duration of the agreement. KPIs can include:

- i. Implementation of the program (KPI)
  - 1. Application
    - a. Participant satisfaction.
    - b. Number of participants in the various workshops.
    - c. Participation sensitized to EDI (parity, equity, diversity, inclusion).
  - 2. Conversion
    - a. Number of participants interested in pursuing studies in a STEM program.
    - b. Distribution of genres.
    - c. Percentage of participants from diverse backgrounds.
    - d. Percentage of participants from disadvantaged backgrounds.
    - e. Age group of participants.
- b. Progress report

Organizations will be required to submit a final report to Scale AI in order to receive the balance of the grant. Reimbursements will be processed as soon as possible following the receipt of all required documents depending on the scope of the project. Scale AI will provide templates to use, which will include:

- i. Executive summary.
- ii. Key achievements.
- iii. Upcoming activities.
- iv. Main risks and mitigation plan.
- v. Receipt of claims and expense reports.
- vi. Actual overall progress compared to the original submission.
- vii. Reimbursement of the current period.

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