

Solicitation 1000203413 - Artificial Intelligence (AI) pilot project for surveillance of suicide-related behaviours using social media

Q&A #1-#6

Question #1

Regarding the purpose of the tool, how is it intended to be used in conjunction with existing surveillance datasets or processes? Given the anonymization of the reports, it is clearly not intended for emergency response dispatch to individual-level interventions.

- a. Does PHAC already have a slower process generating a gold-standard dataset for these behaviors to benchmark the outputs of this potential system?
- b. How close to real-time does PHAC need the reports to be?

Answer #1

That is correct, the tool is not intended for emergency response dispatch to individual-level interventions. The proposed tool is intended to supplement existing data sources. Current data available to PHAC lacks timely information on suicide-related behaviors (i.e. plans, attempts, ideation) which is necessary to better understand related risk and protective factors and how that varies among different age groups and gender. Survey data, for example, the Canadian Community Health Survey conducted by Statistics Canada, provides an estimate of some of these variables, which can be used to help validate information collected through the new tool. Through this RFP, PHAC is looking for a more timely data stream for monitoring suicidal behaviours. We have no set requirement in terms of timeliness, but will look to proposals to balance timeliness with data quality.

Question #2

How broadly does PHAC consider the scope of “social media in Canada?” While social media data are ideal for monitoring public opinion and discourse (objective b, output iv), certain approaches that would allow for more specific sub-group analyses are strongly discouraged by these platforms, especially following Facebook’s Cambridge Analytica scandal. This is reflected in what they choose to withhold from their datasets, as well as how they write their terms of use. Twitter, for example, is relatively research friendly as far as data access but has included specific restrictions in its terms of service around the use of geography or the modeling of certain attributes including health status and ethnicity onto accounts (see <https://developer.twitter.com/en/developer-terms/agreement-and-policy.html> and <https://developer.twitter.com/en/developer-terms/more-on-restricted-use-cases>). Anonymization and aggregation can appropriately protect users yet make it that much more difficult to assess a machine classifier’s performance on these types of characteristics. A costlier pilot including a supplemental mechanism, such as a survey which earns some users’ informed consent to participate in research and in which they knowingly offer their social media footprint tied to their demographic info, could potentially be used to bridge this quality assessment gap.

- a. Understanding that many typical social media sources utilized for public opinion research carry steep costs or limitations on extracting precisely those demographic factors that the RFP identifies for objective b, output iii, would PHAC consider proposals suggesting machine learning analysis of alternative datasets which might contribute to the same end goal?

Answer #2

The purpose of this pilot project is to look at the utility of analyzing discussions of suicide-related behaviours using social media. The analysis of patterns and trends associated with suicide-related discussions on social media will complement traditional surveillance approaches already employed by PHAC, including data collected by Statistics Canada, Canadian Institute for Hospital Information (CIHI) and the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP).

The choice of social media channel(s) or datasets will be assessed in the request for proposal (RFP) process. Once proposals have been submitted, we will review and compare the key aspects of the various social media channels to determine which may be more or less suitable, given our requirements.

Question #3

Could you also confirm whether proposals from U.S. based organizations will be considered, and whether the prices proposed need to be denominated in Canadian dollars?

Answer #3

Yes we will consider bids from other countries, yes the bid must be in Canadian dollars.

Question #4

Will we have access to some historical data such as lists of names of suicide cases, suicides attempts and similar behaviours; corresponding dates; and the victims social media handle?

This will help us train more powerful models.

Answer #4

PHAC does not have access to, nor will be able to provide, any personal information on suicides or any related behaviours.

Question #5

We saw that there was a previously awarded project by PHAC in January 2018 to work with Advanced Symbolics Inc. for an Advance contract award notice with the same title as this current request for proposal. We wanted to inquire on how these two projects were related and whether a pre-identified contractor had been selected for this current project.

Answer #5

In December 2017, the Public Health Agency of Canada posted an Advanced Contract Award Notification (ACAN) for the company Advanced Symbolics to conduct the project. Several competing companies expressed an interest in submitting a bid, leading PHAC to cancel the ACAN and launch a new process open to all. A pre-identified contractor has not been selected for the project.

Question #6

My team was considering bidding on this RFP, as it pertains to our areas of expertise, and we would love the opportunity to improve the lives of our fellow Canadians.

There is, however a mandatory requirement preventing us from applying that I would like to challenge as I don't believe it directly affects our ability to provide the service. I am referring to the following clause:

"At least one (1) of the two (2) submitted project summaries MUST demonstrate experience in defining and obtaining information to inform decision making for government organizations."

I understand the need to justify supplier selection with the Canadian population, but I would argue that this type of requirement is a barrier to allowing new companies to provide services to government, especially in the context of a rapidly changing technological landscape in which prior "decision support" experience may actually be counterproductive to an innovative approach.

I would ask to reconsider this requirement if at all possible.

Answer #6

Given the sensitivity of the topic, prior experience with informing decision making for government organizations is crucial. Please note that this could be for government at any level – federal, provincial or municipal.