

ACTION: S - Special Notice

SOLICITATION NUMBER: BAA-08-SCIL

SET-ASIDE: N/A

RESPONSE DATE: 03/22/2008

CLASSIFICATION CODE: A - Research and Development

CONTRACTING OFFICER:

DOI - NBC, Ft. Huachuca AZ
NBC / Acquisition Services Division
Southwest Branch
P.O. Box 12924
Fort Huachuca, AZ 85670-2924

POINT OF CONTACT:

Gloria M. Golden, Contract Specialist, (520) 538-0418, Gloria_M_Golden@nbc.gov

SUBJECT: Broad Agency Announcement for Socio-Cultural Content in Language (SCIL) Program for Intelligence Advanced Research Projects Activity (IARPA). Initial proposals submission is due NLT 22 March 2008 by 3:00 p.m. (MST).

DESCRIPTION:

DESCRIPTION. This Broad Agency Announcement (BAA) (BAA-08-SCIL) constitutes the entire solicitation for this effort. No additional information is available, nor will a formal request for proposal or other solicitation regarding this notice be issued, requests for the same will be disregarded.

INTRODUCTION: The Department of Interior, National Business Center, Acquisition Services Directorate, Sierra Vista Branch at Fort Huachuca, AZ, acting as the contracting agent for the Intelligence Advanced Research Projects Activity (IARPA), is issuing a BAA to solicit research proposals addressing innovative solutions for the initial phase of a new program dedicated to automating deep language understanding through the discovery of human-language indicators of social meaning.

IARPA is the advanced research organization established by the Office of the Director of National Intelligence (ODNI) in October 2007. IARPA's principal mission is to impact fundamentally and positively the quality of the future operational processes of the Intelligence Community. The SCIL Program is envisioned as a five-year effort that will be initiated at the beginning of the second half of FY08. Phase 1 of the Program will consist of a base period of 14-months with two possible option years. The final deliverable for the base period will be made at the 12-months mark. Work may continue in the following two months but, based on the work accomplished in the first 12 months, the Government will determine whether to exercise the first option year. Year 1 of the Program will focus on development of a proof-of-concept that automates techniques and resources that link linguistic features with social goals and extended meaning. Based on the results of the prior period, option years may be exercised to expand the work. Proposals for an additional phase 2 of 2 years will be solicited under this BAA at the end of the third year.

Proposers are invited to submit proposals for a base period of 14-months with two possible option years, indicating how the anticipated work of the base year would be extended and enhanced in the option year(s). The Government anticipates funding approximately 6-10 proposals for the first year at varying levels of effort. The base period is expected to fall within the \$300,000 to \$500,000 range. This funding range is an approximation. Cost proposals should reflect the realistic cost of the proposed work. Option years will be in the same funding range.

This announcement is an expression of interest only and does not commit the Government to pay for proposal preparation costs. The cost of preparing proposals in response to this BAA is not considered an allowable direct charge to any resulting contract or to any other contract. However, it may be an allowable expense to normal bid and proposal indirect costs as specified in FAR 31.205-18. If a subcontract with a Federally Funded Research and Development Center (FFRDC) is proposed, offerors are reminded of the limitations on their participation (see FAR 35.017) and must provide documentation in the proposal that work is not otherwise available from the private sector.

Discussions with any of the points of contact or others associated with the Program shall not constitute a commitment by the Government to fund or award any proposed effort. Only Contracting Officers are legally authorized to commit the Government.

This Broad Agency Announcement will remain open for 3 consecutive years from the date of the official announcement. The initial proposal submission will be 48 calendar days from the BAA announcement (March 22, 2008 NLT 3:00 p.m. (MST)). Any subsequent proposals can be submitted at any time during the three-year open period of the BAA. Evaluation criteria will remain the same. Awards will only be made to those proposals deemed worthy and if funds are available.

Tasks in all proposals should be clearly differentiated and optional periods as well as tasks should be labeled plainly.

Information in this BAA is supplemented by a Proposer Information Pamphlet (PIP) that provides further information on the eligibility, support, research areas, multidisciplinary approaches, preparation and submission of proposals, and selection criteria. It is available on the World Wide Web at http://www.nbc.gov/acquisition/fort_h/solicit.html

PROGRAM BACKGROUND: The Socio-Cultural Content in Language (SCIL) Program intends to explore and develop innovative designs, algorithms, methods, techniques and technologies to extend language understanding into the socio-cultural arena. The program will, in the end, develop automated resources that provide users with a broadened understanding of the contextual and social value of the information with which they work. Advancing contextual understanding has become a priority throughout the Government. The Science and Technology Office of the Office of the Director of National Intelligence has recognized "globalization" and the leveling of the world and of communication as a primary focus of interest in order to improve understanding on the world stage. The Defense Science Board (DSB) has also identified the understanding of social and cultural contexts and norms as a priority for improving the quality of intelligence and providing relevant information to decision-makers.

Human language use reflects social and cultural norms, contexts and expectations. Social variables (such as religion, status, gender, education) and contextual features (such as formality, participant beliefs, social situation) can influence the form and features of language. Because language use responds to such social and cultural influences, then correlating social goals with language forms and content should provide a rich and expanded understanding of the attributes, roles and nature of the associations and intentions of the users of the language.

Current human language technologies show little ability to "understand" or capture the social dimensions of language. Today, information analysts gather facts, generally without the context in which these facts occur. Yet, human language does more than serve as a means of transferring factual information. Referential meaning (i.e., conveying information about the real world) is only one aspect of language use. Language can also convey feelings and other unstated meaning; elicit behaviors from others; and build and maintain relationships. For the IC to be successful at characterizing a state-of-affairs for a decision-maker, the analyst must move beyond isolated pieces of information into an integrated picture of facts in their context of occurrence, including the cultural setting. Understanding the global community of today requires access to the varying worldviews of the players on the world stage. Many dimensions of these worldviews are reflected in language.

The goal of the SCIL Program is to develop a methodology for identifying language indicators (i.e., their form, meaning and strength) of the social characteristics and objectives of members of a social group. The relationship between language indicators and social objectives will be culture- and language-specific but the aim is to generalize across languages and cultures. People tend to want to accomplish similar social goals; it is how they do this that differs.

PROGRAM OBJECTIVES: The social sciences have developed theories of behavior that are relevant to this effort. These theories and systems can serve as the framework for understanding social principles as well as for generalizing across cultures. (As an example, Brown and Levinson in the 1980's proposed a theory of politeness that abstracted away from language forms and culture-specific strategies and provided a generalized view of politeness that (presumably) can apply across languages or cultures.) The goal of the Program, then, is to develop a methodology for addressing similar social goals in different languages and cultures. Although using one language as a baseline is permitted, proposers should keep in mind that the goal is to be able to apply insights on linguistic indicators of a social function to a new language and culture.

The primary focus of the Program is on human language. The aim is to associate linguistic cues and features with particular social goals and constructs of a social group (e.g., leadership, coercion, politeness). Because much social research on social norms and rules exists, it is not the intent of the program to develop new social theories. The research is focused on the automation of the association of linguistic features with social generalizations.

Traditional approaches to social network analysis are not of interest, but social groups and the behaviors of their members, as conducted through or supported by language, are. Enhancement to information extraction technologies is also not of value to the Program, although such techniques can be used if it is demonstrated that the correlation between social goals and linguistic cues can be met.

TECHNICAL AND RESEARCH AREAS:

Unit of Analysis: Social Groups

The unit of analysis for this Program will be social groups. It is not necessary that the groups be named groups (e.g., Al Qaeda, FARC, Hamas, Muslim Brotherhood). The groups can be of any size (i.e., two to n participants) but the members must interact in some way (i.e., there must be at least a source and an audience). The group can be an established one (named or unnamed), an emergent one or one that is dissolving. The goal is to identify and represent indicators of social functions and relationships as they are manifested in the language used.

Medium of Analysis: Human Language

Language is a mirror of socio-cultural norms. As such, we should be able to explore how social functions (e.g., leadership, politeness, gender bias) are realized in human language.

In the first year, English may be used to develop a baseline but the goal of the Program is to develop a methodology for characterizing social phenomena across languages, generalizing their function and correlating them with linguistic markers. Preference will be given to those proposers that extend their work, or show how they would go about extending their work, to other cultures and languages, drawing contrasts and similarities across languages.

Multidisciplinary

Human beings tend to require fulfillment of similar social goals. The strategies used to accomplish these goals and the influences on how they are accomplished, however, can differ dramatically across cultures and social groups. The social sciences (e.g., sociolinguistics, social and linguistic anthropology, sociology, cognitive psychology, among many) have examined many of these strategies and generalized to underlying principles - where possible, developing theories of social and cultural structures and functions.

It is not the intent of this Program to duplicate or recreate this research and these theories. The expectation is that proposers will reference relevant theories, contributing linguistic evidence in support of the theories or recommending revision or enhancement of the theories based on linguistic evidence, as appropriate. Preference will be given to those proposers that make clear what social theories they intend to use and to those teams that include experts in the relevant social sciences.

Topics

There are three dimensions to this effort: the social features and activities of the group and its members; the linguistic features that serve as evidence of social goals; and the social science theories that help to define the social features. It is the correlation of these three dimensions that is important to the Program, showing how language serves as evidence of social functions.

PROPOSAL PREPARATION INSTRUCTIONS: See the Proposer Information Pamphlet (PIP) which provides preparation and submission instructions for proposals. It is available on the World Wide Web at http://www.nbc.gov/acquisition/fort_h/solicit.html

PROPOSAL SUBMISSION: Proposals are due on or before 3:00 PM, Mountain Standard Time, 22 March 2008 to the Department of the Interior, National Business Center, Acquisition Services Directorate, Sierra Vista Branch, Post Office Box 12924, ATTN: BAA (I. Lloyd), Fort Huachuca, Arizona, 85670-2924. See the Proposer Information Pamphlet (PIP) which provides detailed instructions on proposal submission procedures. It is available on the World Wide Web at http://www.nbc.gov/acquisition/fort_h/solicit.html

PROPOSAL EVALUATION AND SELECTION: Proposals will be selected through a technical/scientific/business decision process with technical and scientific considerations being most important. Proposals will not be evaluated against each other since they are not submitted in accordance with a common work statement. Evaluations will be performed using the following criteria listed in descending order of relative importance. Proposals unresponsive to the technical and research areas addressed in the BAA will not be fully evaluated and will not be considered for award.

- 1). Overall scientific and technical merit
- 2). Potential contribution and relevance to the SCIL Program and research goals
- 3). Past performance
- 4). Cost and schedule realism

Awards under this BAA will be made to responsible offerors on the basis of the evaluation criteria above and a BEST VALUE approach to the Government. Awards will be subject to the availability of funds. Awards will take the form of procurement contracts. The Government reserves the right to 1) select for award all, some, or none of the proposals received, and 2) incrementally fund any award instrument.