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2.4 Task 4: Non-GPS Contextual Location

2.4.1 The Contractor shall develop and identify automated, non-GPS methods for determining contextual location. These methods may use sets of keywords, hashtags, proven location influencer accounts, and other relevant information to evaluate online content to determine likely geographical borders of social network communities. The Contractor shall apply these methods to different languages and across different regions in a repeatable process.

2.4.2 The Contractor shall develop an automated, repeatable process for building a "micro-localized" seed account set using computation methods. This process shall be based on both message content and social network analysis to identify other accounts that share the same micro-localization. The Contractor shall build a working prototype tool that can be successfully used in different regions and with different languages.

2.4.3 The Contractor shall develop a broader version of this technique that attempts to quickly classify the language and likely region of the account holder. The success of this model shall be based on its ability to accurately identify social networks that diverge from other groups in the same region that share the same language and its improvement over current methods.

2.4.4 The Government may indicate regions of particular interest to the Contractor to focus on in testing and refining the developed tool.

2.4.5 The Contractor shall develop a technique for using the additional data generated as a result of this task in the account labeling and reporting to DHS and inform Task 1's "Risk Score," adding geographical data as another attribute to inform risk scoring. The Contractor shall produce an academic paper based on the developed methods to share its successes with the field.

2.4.6 The Government may specify other domains of interest (e.g., terrorism, human trafficking, etc.) for experiments. The outputs of these experiments will be incorporated into the demonstrations, documentation, and artifact deliverables for this task.

2.4.7 During the base period of performance, the duration of this task is twelve (12) months.

2.4.8 Based on the results of the base period of performance, additional, more focused effort within the scope of this task may be required during exercised option periods. If such additional effort under the scope of this task is required, the exercise of subsequent option periods may include the exercise of the optional CLIN associated with this task in the respective option period.

2.4.9 **Option Period 1:** The Contractor shall continue to mature Non-GPS contextual location techniques; conduct demonstrations showing performance and automation, and ready the capability for operational testing in a DHS or HSE partner site(s) identified by DHS.

> **2.4.9.1** The Contractor shall refine the capability based on Government feedback and provide progress reports.

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2.4.9.2 The Contractor shall develop and execute a test plan that includes performance measures and metrics and tailor/refine capabilities to meet DHS or the host HSE partner's needs. The Contractor shall conduct its operational testing onsite at the deployed location.

2.4.9.3 The Contractor shall develop and deliver training, including a user guide, for onsite staff to use and maintain the capability if it is selected for long-term mission use.

2.4.9.4 The Contractor shall deliver a report summarizing the experiment(s) and findings.

2.4.9.5 The anticipated duration of this task during Option Period 1 is twelve (12) months from date of option exercise.

2.5 Task 5: Online Forums to Social Networks

2.5.1 The Contractor shall develop methods to document the connections between various online communities as well as identifying social media accounts that have ties to certain online forums and vice versa. The Contractor shall develop an automated process for gathering, querying, and evaluating online content to improve the identification and classification of relevant links between social media and online forums.

2.5.2 The Contractor shall build models to identify key influencers of pro-terrorist thought by comparing the messages that spread most effectively across online forums and from forums to social media. The Contractor shall develop tools to automate the process of identifying and classifying pro-terrorist accounts, using data captured across multiple sources.

2.5.3 The Government may specify domains of interest (e.g., terrorism, human trafficking, etc.) for experiments. The outputs of these experiments will be incorporated into the demonstrations, documentation, and artifact deliverables for this task.

2.5.4 During the base period of performance, the duration of this task is twelve (12) months.

2.5.5 Based on the results of the base period of performance, additional, more focused effort within the scope of this task may be required during exercised option periods. If such additional effort under the scope of this task is required, the exercise of subsequent option periods may include the exercise of the optional CLIN associated with this task in the respective option period.

2.5.6 **Option Period 1:** The Contractor shall continue to mature the work under "Online Forums to Social Networks," conduct demonstrations showing performance and automation, and ready the capability for operational testing in a DHS or HSE partner site(s) identified by DHS.

2.5.6.1 The Contractor shall refine the capability based on Government feedback and provide progress reports.