

# ADVANCED ANALYTICS TO COMBAT HUMAN TRAFFICKING

## Artemis Overview

Artemis is a proactive, automated solution for counter-human trafficking stakeholders to increase efficiency on investigations and disruptions by identifying high risk establishments and individuals. Our initial pilot focused on the illicit massage industry in the state of Florida, categorizing massage businesses based on customer activity, staffing, location, services offered, imagery, and disciplinary actions. Using this data and advanced analytics, we created risk scores and tiers for targeted action.

## Early Involvement and Stakeholders

Global Emancipation Network, Accenture Applied Intelligence, Splunk for Good, and Graphistry partnered to aggregate and correlate large sums of disparate data, test machine learning models, and develop advanced analytics to create our proof of concept solution.

## Initial Findings

Our model identified 22,708 unique massage businesses in Florida. We focused on the 3,567 of those businesses that had or have customer reviews on either Rubmaps, an illicit massage review forum, or Yelp. Based on a lexicon of massage-centric sex terminology and related human trafficking terminology, 465 businesses scored 1, suggesting a 100% likelihood the business is engaged in human trafficking. The top 10 offending businesses averaged 16 or more human trafficking-related terms in reviews, with the top offender racking up an average of 24 such terms per review. Artemis additionally identified 27 individuals operating illicit massage businesses as part of Florida trafficking networks.

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## Future Work

The National Science Foundation has provided a small grant to support undergraduate students for additional data collection and analysis for Artemis, expanding into WA, NY, DC, TX, and CA. In next iterations, we will focus on scalability, increased efficiency in correlating businesses, geospatial analysis, image and video analysis, and improved OCR techniques. Once we have mastered the illicit massage sector, we will expand into content moderation on social media platforms and automated classification in the financial sector. We will continue to expand into new verticals until Artemis represents a robust, automated, and universal human trafficking classifier.

## Key Contacts

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## About Accenture Applied Intelligence

Accenture Applied Intelligence helps clients apply new data science and intelligent technology across their business, and into every function, so they can transform their business and achieve new outcomes at speed and scale. Recognized as a leader by industry analysts, the company helps clients create new intelligence using artificial intelligence, machine learning, proprietary algorithms and app-based solutions, all powered by the Accenture Insights Platform. We collaborate with a powerful alliance and delivery network to help clients operationalize within any market and industry with a focus on speed to value. Combining expertise across industries, analytics, technology and design, Accenture is uniquely qualified to drive new business outcomes with precision, at scale.

[www.accenture.com/appliedintelligence](http://www.accenture.com/appliedintelligence)

## About Global Emancipation Network

Global Emancipation Network is a global data analytics and intelligence nonprofit dedicated to countering all forms of human trafficking, the 2nd most profitable and fastest growing crime across the world. Minerva, the multi-tenant data analytics and investigations platform created and hosted by Global Emancipation Network, empowers users across the anti-trafficking stakeholder community to find trafficking victims, stop traffickers, and inform resource allocation and policy.

[www.globalemancipation.ngo](http://www.globalemancipation.ngo)

## About Splunk for Good

Splunk believes that data can make for better business and a better world. Through Splunk for Good, we work to inspire action and create opportunity through people, partners, and data. Splunk partners with organizations at the local, state and federal levels to leverage data in support of initiatives such as disaster and humanitarian response, counter-human trafficking and open government. Through our \$100 million Splunk Pledge we support nonprofits, workforce training, research and education through product donations, discounts and education to provide access to exciting new career opportunities. Our \$50 million Social Impact Fund invests in early stage organizations that are using innovative, data-driven approaches to drive meaningful social impact. Through Splunk for Good, we turn data into doing... good.

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