

Carnegie Mellon University  
School of Computer Science

# Visualization Tool Helps Law Enforcement Identify Human Trafficking

Aaron Aupperlee

Tuesday, October 25, 2022

A data visualization tool developed by School of Computer Science researchers, collaborators from other universities and experts in the field could assist law enforcement agencies working to combat human trafficking by identifying patterns in online escort advertisements that often indicate illegal activity. [TrafficVis](http://catvajiac.m/e/files/trafficvis.pdf) [http://catvajiac.m/e/files/trafficvis.pdf], which helps analysts visualize data pulled from millions of ads, recently received a best paper honorable mention at [IEEE VIS 2022](https://ieevis.org/year/2022/welcome) [https://ieevis.org/year/2022/welcome], one of the top visualization conferences.

TrafficVis uses data collected by [InfoShield](#) [./2021/algorithm-uses-online-ads-identify-human-traffickers] and similar algorithms designed to scan and cluster similarities in the text of online ads to help law enforcement direct their investigations and better identify human traffickers and their victims. SCS researchers also worked on InfoShield, which can collate millions of advertisements and highlight common phrasing or duplication among them. Since a trafficker may write ads for several victims, it is highly likely that clustering commonalities will point to something suspicious.



A data visualization tool developed in part by SCS researchers could assist law enforcement agencies working to combat human trafficking by identifying patterns in online escort advertisements that often indicate illegal activity.

TrafficVis is the first interface for cluster-level human trafficking detection and labeling. Experts can use the tool to label clusters as human trafficking or other suspicious — but nonhuman — trafficking activity such as spam and scam. This will quickly create labeled datasets to enable further human trafficking research. The team that designed TrafficVis included SCS Ph.D. students Catalina Vajiac, Meng-Chieh Lee and Namyong Park; computer science and machine learning faculty member [Christos Faloutsos](http://www.cs.cmu.edu/~christos/); Georgia Tech faculty and CMU alumnus Polo Chau; McGill University faculty Reihaneh Rabbany; and experts Andreas Olligschlaeger and Rebecca Mackenzie from [Marinus Analytics](https://www.marinusanalytics.com/), a CMU spin-off company that specializes in human trafficking detection.

### For More Information

Aaron Aupperlee | 412-268-9068 | [aaupperlee@cmu.edu](mailto:aaupperlee@cmu.edu)