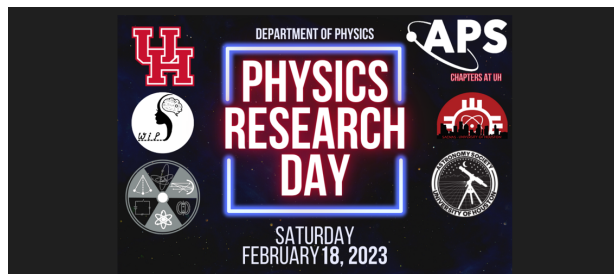Contribution ID: **28**   Type: **Poster**

AI-SNIPS: A Platform for Network Intelligence-Based Pharmaceutical Security

Saturday 18 February 2023 12:55 (5 minutes)

I present AI-SNIPS (AI Support for Network Intelligence-based Pharmaceutical Security), a platform that enables stakeholder decision-making, secure data sharing, and interdisciplinary research in the fight against Illicit, Substandard, and Falsified Medical Products (ISFMP). AI-SNIPS takes as input cases: a case consists of one or more URLs suspected of ISFMP activity. Cases can be supplemented with ground-truth structured data (labeled keywords) such as seller PII or case notes. First, AI-SNIPS scrapes and stores relevant images and text from the provided URLs without any user intervention. Salient features for predicting case similarity are extracted from the aggregated data using a combination of rule-based and machine-learning techniques and used to construct a seller network, with the nodes representing cases (sellers) and the edges representing the similarity between two sellers. Network analysis and community detection techniques are applied to extract seller clusters ranked by profitability and their potential to harm society. Lastly, AI-SNIPS provides interpretability by distilling common word/image similarities for each cluster into signature vectors. I will share our current results and the opportunities that this platform paves the way for.

Academic year

5th year and/or beyond

Research Advisor

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