Temasek Defence Systems Institute



TERRORISIM FROM A GLOBAL PERSPECTIVE: INFLUENCE AND NETWORK STRUCTURE ANALYSIS

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Objectives

- How Influence strength differs across perpetrator group
- How influence strength of perpetrator groups evolves with time

Main Research Ideas

- Terrorism
- Social Influence and Network Science
- Centralities
 - Eigenvalue Centralities
 - Closeness Centralities
 - Betweenness Centralities
 - Using attributes to determine influence strength

TTP Al Nusrah Front Muslim Extremists

Research Results

- The number of terror activities has surged since 2011.
- The number of perpetrator groups recorded in each year, has not increased dramatically since 2011
- ISIL influence strength increase since 2013, most influential from 2014 to 2016
- New group emerge with high influence strength: Jaysh-al-Islam (Syria)
- Terrorism appears to be shifting eastward
- Some of the terror activities occurred and intensified near land territorial closer to coastal regions.

Potential Application

- Study how influence spreads in a network
- Identify most influential perpetrator groups, isolate them, to break up the network

Future Works

- Indirect influence measure
- Influence susceptibility
- Analysis of "Unknown" Perpetrator Group

