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Forecasting the fall of the IS caliphate: An
expected utility model (EUM) and social
network analysis (SNA) approach

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Forecasting the fall of the IS caliphate: An expected utility model (EUM) and social network analysis (SNA) approach



Naval Postgraduate School

Background

Are there information platforms that analysts can leverage to more accurately chart the evolution of political decisions and their attendant consequences for current and future military strategies? Such tools would enable analysts to engineer alternate favorable outcomes that best supports U.S. interests not achieved through sole reliance on subject matter expertise.

Motivation

Because, as the great Prussian strategist observed, “war is a serious means to a serious end” thinking critically about the relationship between policy and war is paramount to sound strategic thinking. Failure to critically analyze the impact and consequences of political decisions risks developing military strategies that fail to deliver on U.S. policy objectives, and at worst, risks defeat.



Purpose

- (1) To bring attention to two critical information tool-sets that rigorously evaluate the impact of policy decisions: The expected utility model (EUM) and social network analysis (SNA).
- (2) The EUM, SNA, combined with subject matter or area expert analysis, has the potential to (1) yield powerful inferences about the nature of political climate in any theater of operation, (2) identify strategic opportunities that best aligns with U.S. interests.

Approach & Methods

Evaluate and assess the following policy questions:

-What is the prospect the global coalition and other relevant stakeholders (Russia, Iran, and Syria) will degrade and ultimately defeat the Islamic State caliphate?

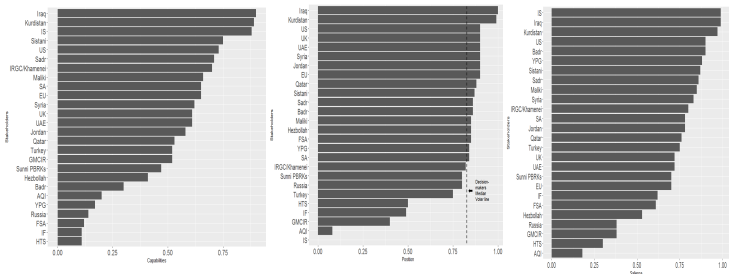
-Should the IS be defeated militarily, what is the prospect the movement will endure as an insurgency?

-What are the policy preferences regarding Iraqi national political organization, ranging from partition into separate Shi'a, Sunni, Kurdish states to various forms of unified states in which their governorates are subordinate to the government of Iraq?

Data collection

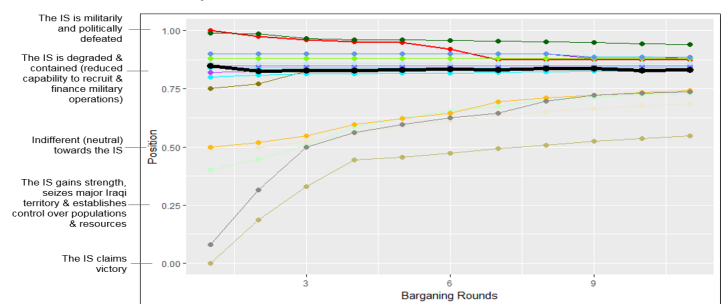
Elicit subject-matter expert knowledge on the IS (From RAND & NPS)

1. Identify actors who trying shape the outcome of the IS conflict
2. What they say they want
3. How focused they are in resolving the issue
4. How much capabilities they could bring to bear to influence the outcome



Results for Issue 1 (EUM)

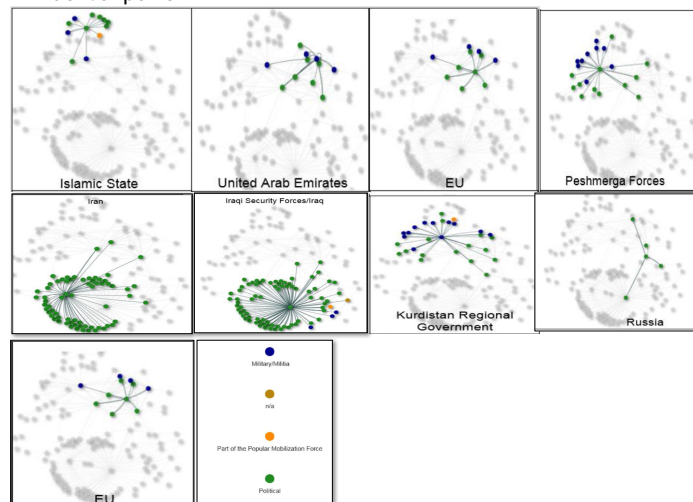
The EUM instantiates the global coalition is expected to unite and defeat the IS caliphate



Results from SNA

SNA contribution:

- Use 166 agents identified for the EUM forecast, to determine the alliances that exists between agents
- SNA Findings: illuminate the underlying relationship between the Iran and the PMF; identifies where Iran generates most of its influential power



The “So What?”

The EUM & SNA remain powerful facilitative means to examine, analyze, and convey *what is* and provide robust recommendations of *what could be* for analysts in search of crafting effective policy or military strategies that best aligns with U.S. interests.

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