

# Network Discovery Vs Understanding

Q: "Is it possible to evaluate a tool to visualise a complex system, like an organisational network, without validated models for how it behaves?"

NATO Network of Experts

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# Question Time



Q:“ Is it possible to evaluate a tool to visualise a complex system, like an organisational network, without validated models for how it behaves?”

# Advanced Analytics Experience And Next Steps

Discovering  
Understanding Adversary Networks  
Engaging  
Transforming

**THAT POSE A  
SIGNIFICANT  
THREAT**

# Team Round 1: Observation



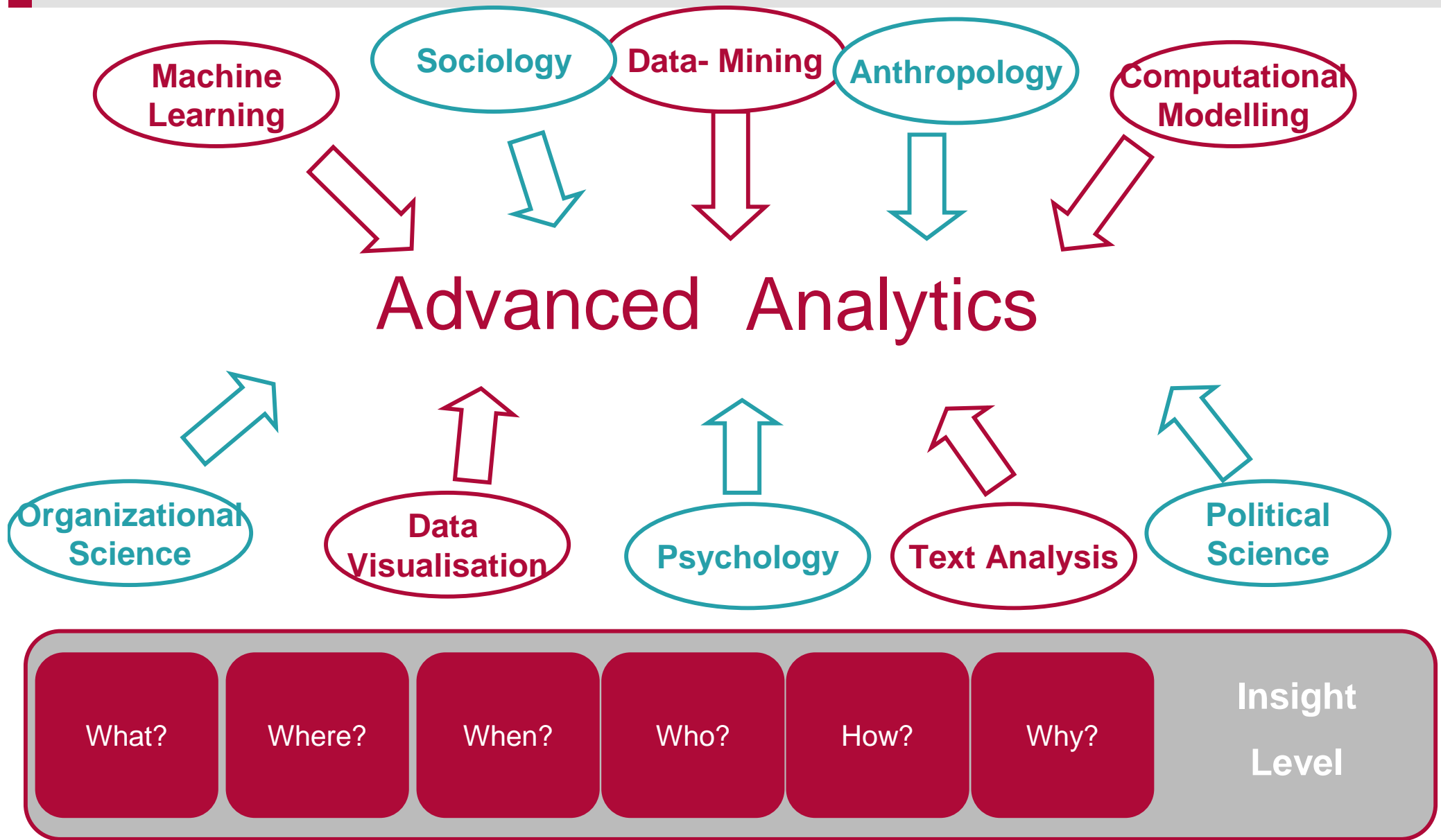
NATONXD002

# What a computer can see?

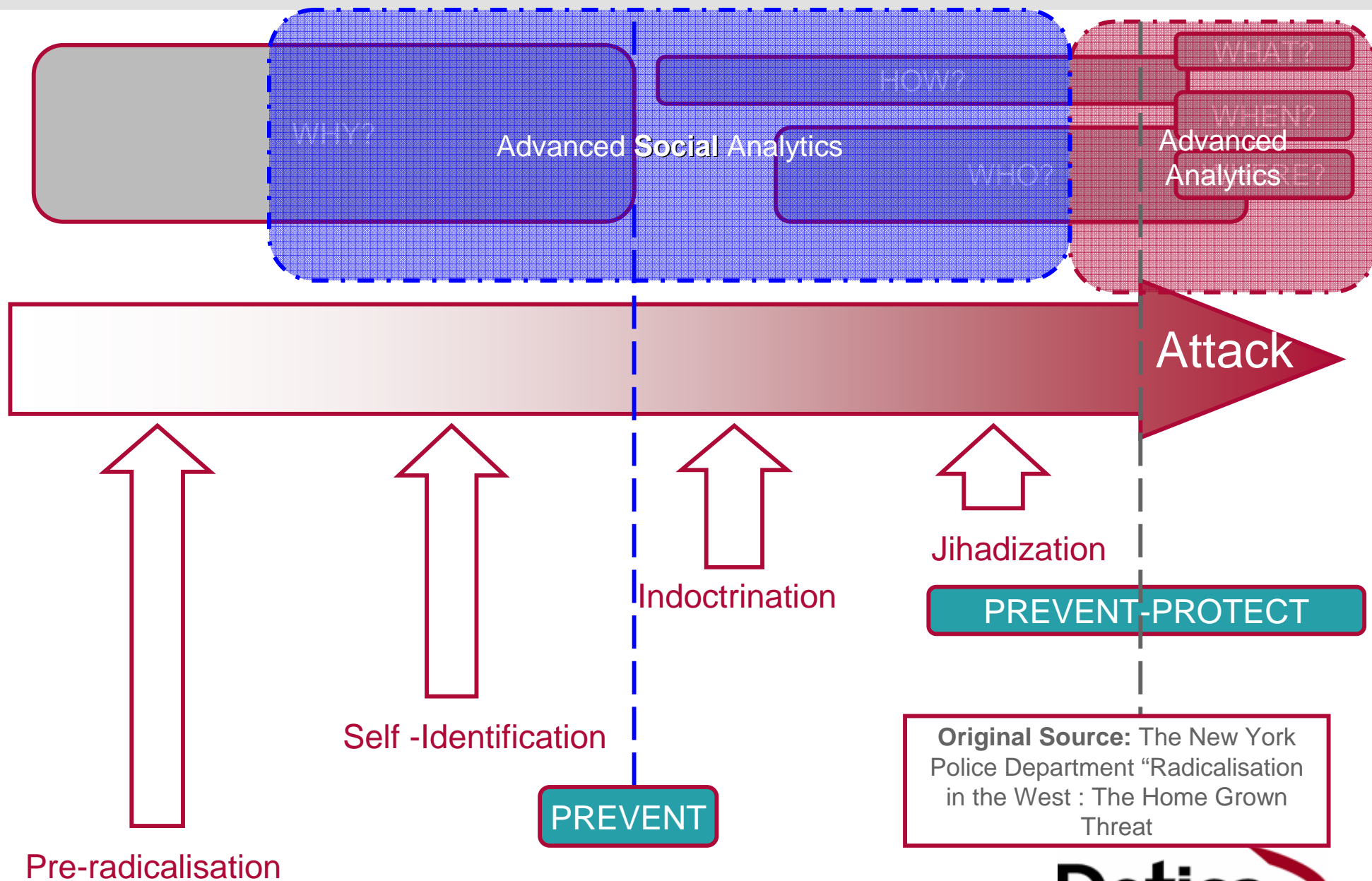


- 1 singular nominal foreground
- 1 nominal group (number unknown <5 =small group) background
- Good light
- =Scene not busy
- 1 singular nominal foreground
- 1 nominal group (number 3 =small group) mid scene
- Good light
- =Scene not busy

# Applying Detica Analytics: Next Level



# Example: Prevent as Radicalisation Process (Social)



**Original Source:** The New York Police Department "Radicalisation in the West : The Home Grown Threat"



Pre-radicalisation

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# Social Network Analysis (in Context)

Discovery

Understanding

## Link Analysis

The actions of individuals can be better explained by understanding the links that exist between them.

## Network Analysis

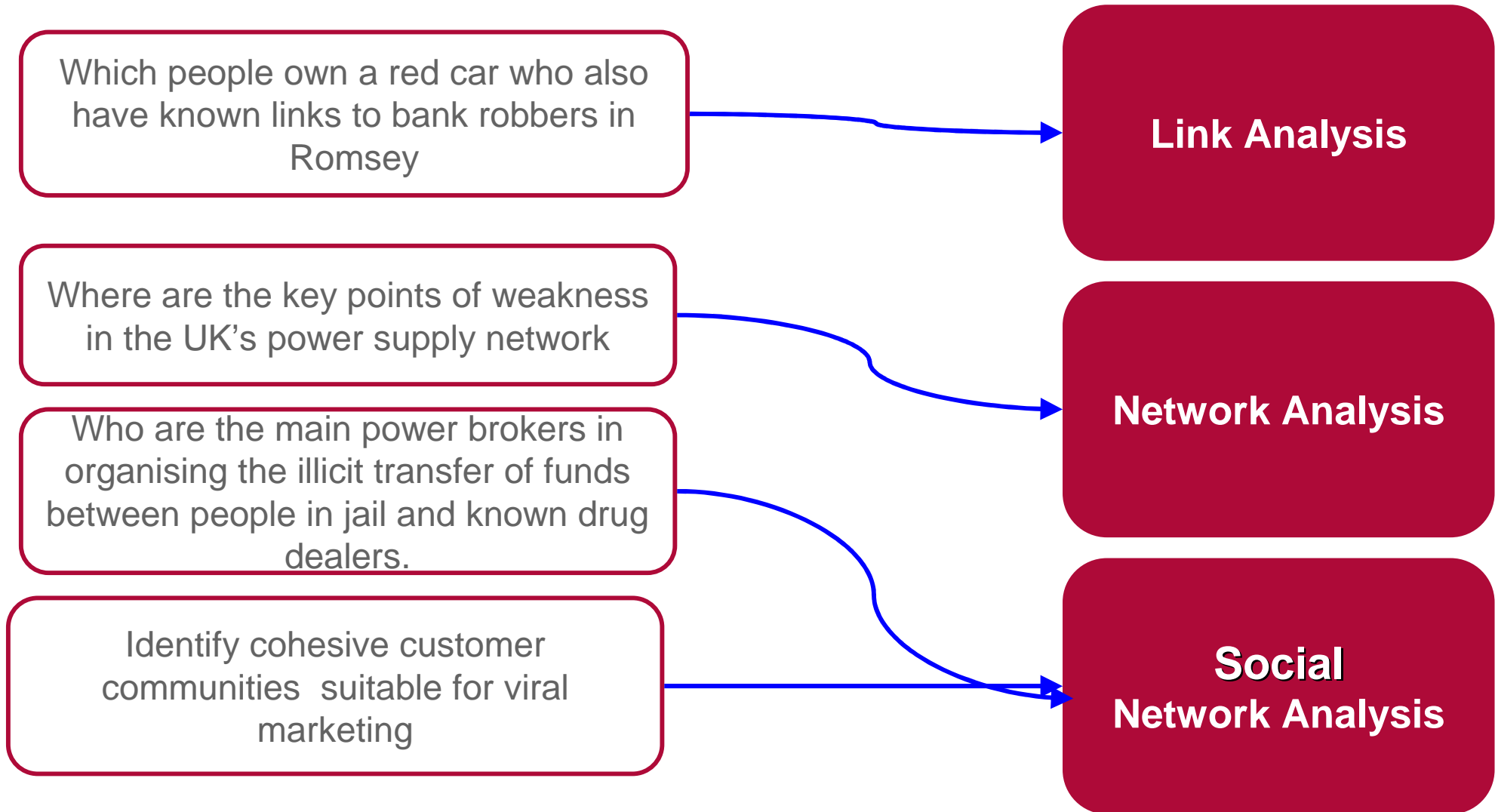
+ Adds mathematical concepts of graph centrality, cohesion and group identification to identify key features

## Social Network Analysis

+ Adds social & cultural theories to provide explain and predict changes to network structure and actions



# Team Round 2: Association

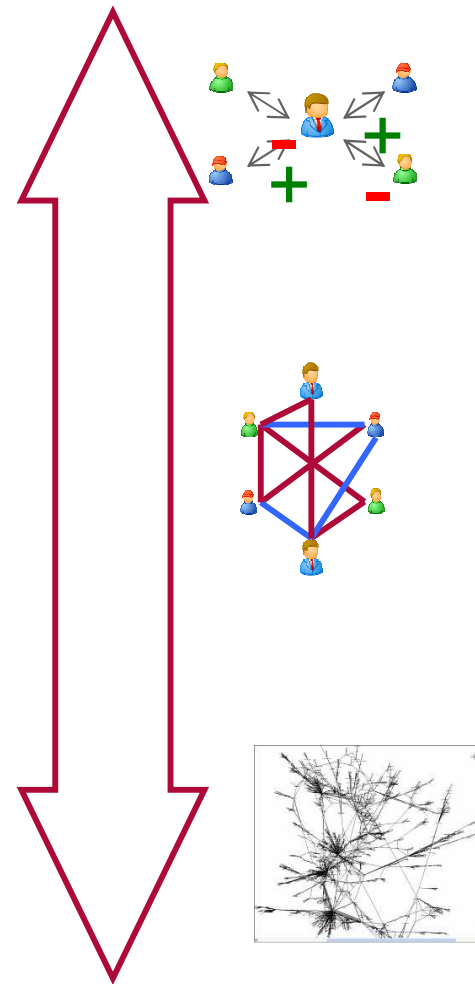


# SNA Measures

## Key Words

- Key players, cut points , brokers, connectors
- Cliques, Communities,
- Cohesion, Density, reciprocity.

Individual



Whole  
Network/Population

## Questions

- Who are the key brokers in the flow of information in Detica?
- Does Detica have communities of experts that cross organisational divides?
- Do NS project teams have more internal cohesion than TMTE project teams?

# Summary

- **Difference between Network Discovery and Network Understanding**
- **Engaging with groups you don't understand may result in less ineffective mitigation , at worst unintended consequences greater than threat being mitigated.**
- **Network measurement **does not** equal network understanding**

# Question Time: Again



Q:“ Is it possible to evaluate a tool to visualise a complex system, like an organisational network, without validated models for how it behaves?”

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