Emerging technologies, Disinformation, and Decision-making:
A Conceptual and Historical Analysis

Dr Joe Burton – *Research Fellow, Chatham House International Security Program, Senior Lecturer, New Zealand Institute for Security and Crime Science (NZISCS)*

Dr Simona Soare – *Senior Associate Analyst, EUISS*

Scope and aims of the paper

Research Question:

How does the convergence of disinformation campaigns with emerging technologies affect political/military decision making?

Disinformation: *"false information deliberately and often covertly spread (as by the planting of rumours) in order to influence public opinion or obscure the truth*

Importance:

- Increased concerns over disinformation operations
- Very little academic analysis of the impact of disinformation on strategic decision making
- Growing need to understand impact of emerging technologies on strategic/military decision making in a changing security environment
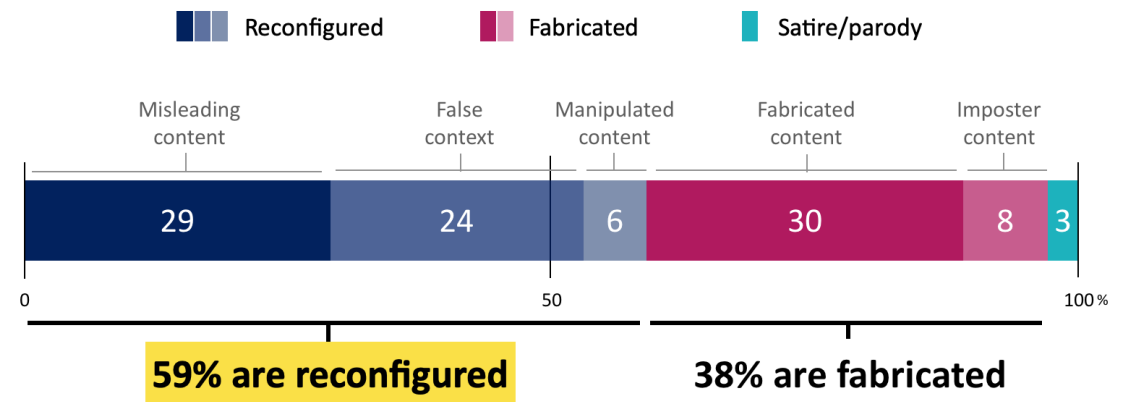
Figure 2: Reconfigured vs fabricated misinformation

| Reconfigured | Fabricated | Satire/parody |

Misleading content		False context	Manipulated content	Fabricated content		Imposter content	
29	24		6	30		8	3

0   50   100%

59% are reconfigured   **38% are fabricated**

shows the proportion of reconfigured (N=133) and fabricated (N=86) misinformation in the sample (N=225) and the types of misinformation that constitute both reconfigured and fabricated misinformation.

REUTERS INSTITUTE FOR THE STUDY OF JOURNALISM   UNIVERSITY OF OXFORD

Scope and aims of the paper

- **Methods/structure:**
- *Part 1: Technological analysis*
- *Part 2: Analysis of decision-making/models*
- *Part 3: Historical analysis*

- **Argument**

Emerging technologies are social technologies that have cognitive and societal impacts – this needs to be factored into existing decision-making processes if these are to be insulated/protected from disinformation campaigns

1. Technological analysis

How do emerging technologies impact decision making?

- *Speed (latency)*
- *Accuracy*
- *Scope/volume of information*
- *Processing power*
- *Curation*
- *Fact checking*

(but also trust, bias, fallibility)

Decision making

Cognitive computing

5G

Big data

IoT

Quantum

AI
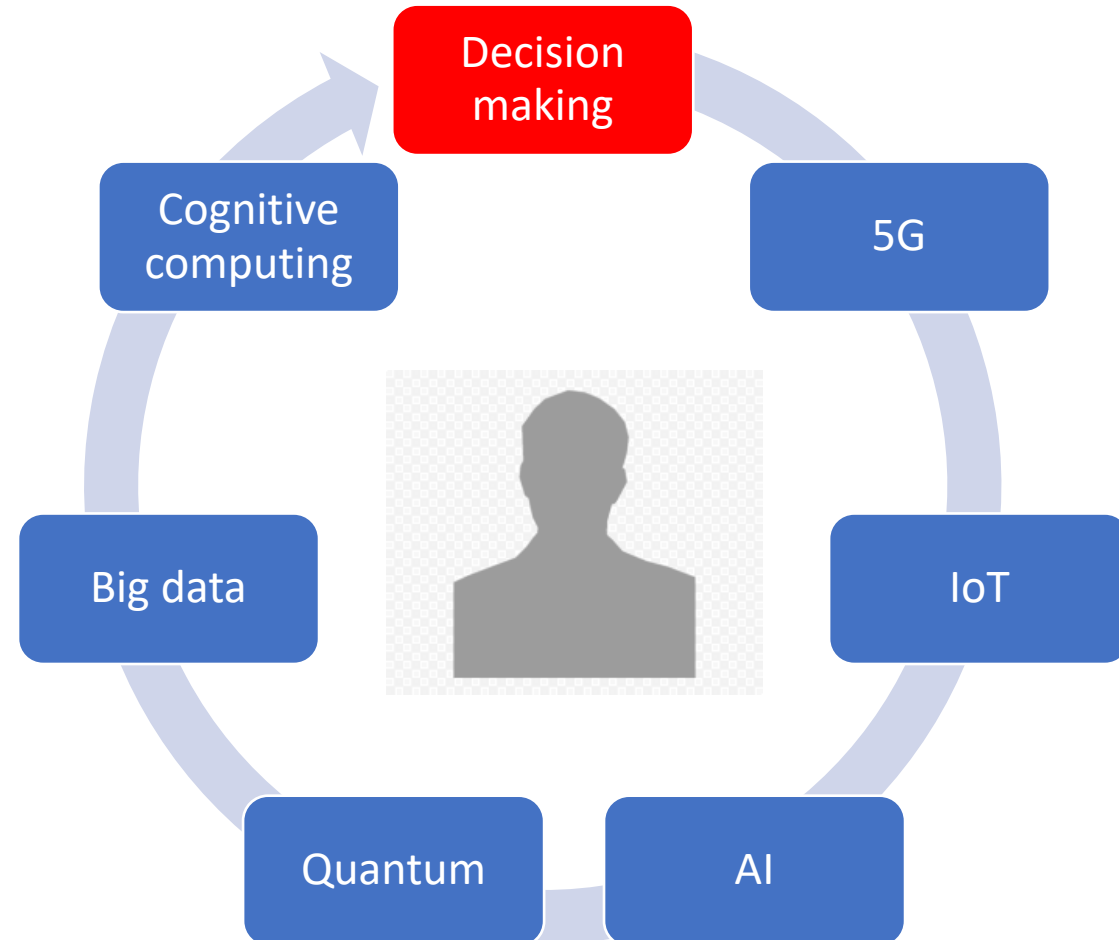
2. Disinformation and decision making

What is (good) decision making predicated on?

- Access to information

- Reliability and integrity of the information

- Situational awareness

- Rational assessment of information

- Cognitive factors

- Organisational factors

- Counterintelligence operations

- Deception – through disinformation
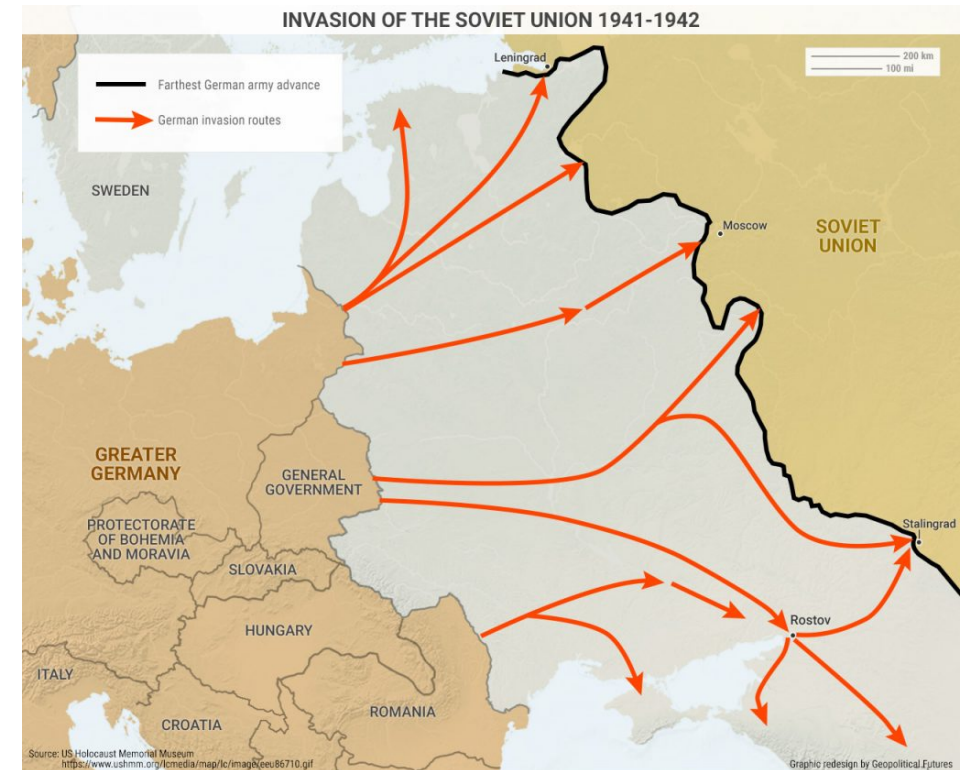
Hitler's operation on the Eastern front in WW2 displayed many elements of 'bad' decision making, including relating to force concentration/dispersal and technological risks

2. Existing Models – MDMP/Intelligence Cycle

Military Decision-Making Process

- Receipt of Mission
- Mission Analysis
- Course of Action (COA) Development
- COA Analysis
- COA Comparison
- COA Approval
- Orders
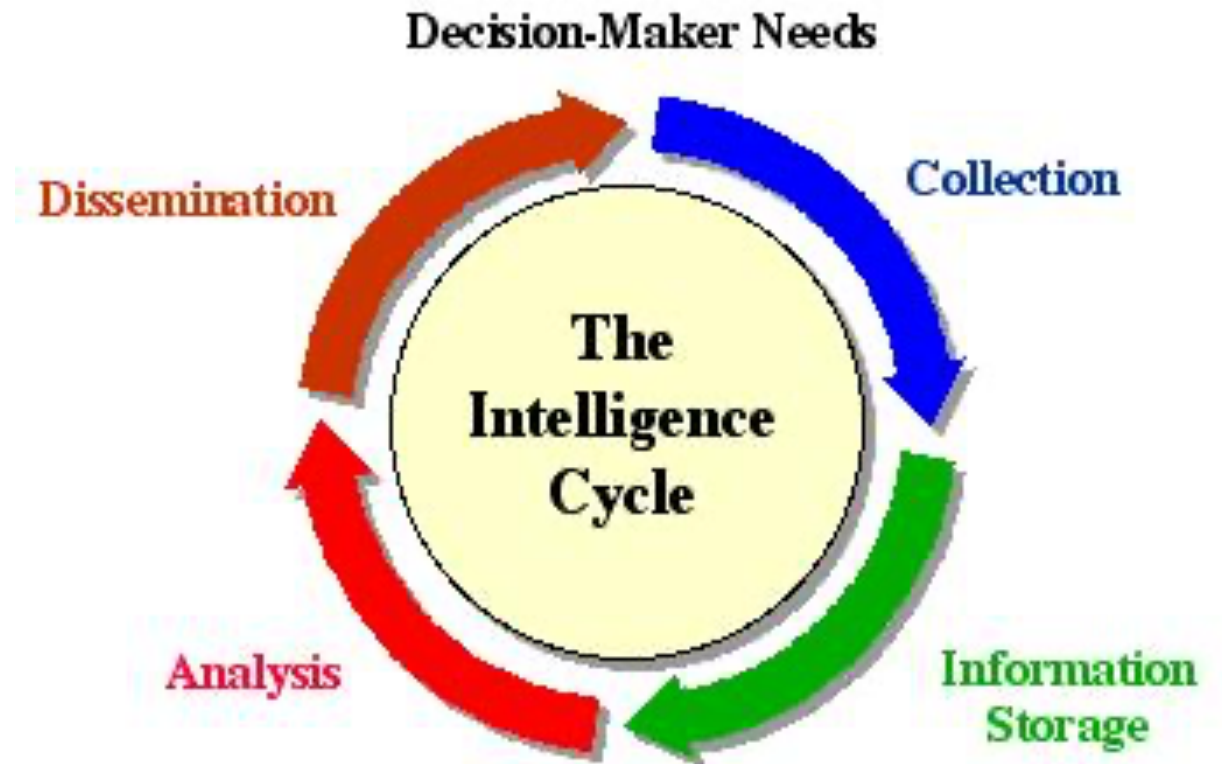
3. Historical analysis

Disinformation operations and decision making. What can we learn from history?

Cold War	Early-post Cold War	Recent hybrid conflicts
Tet offensive	Former Yugoslavia	ISIS (Iraq/Syria/Libya)
Cuban Missile Crisis	Afghanistan	Ukraine (eastern flank)

*What are the **common** lessons we can derive about the impact of technology-enabled disinformation on decision making?*

Conclusion/Findings – Implications for Decision Makers

- **<u>Technological analysis:</u>** The range of technologies have a common societal and cognitive impact – *trust, reliability* are central factors for decision making

- **<u>Decision-making/models:</u>** Existing decision-making models/processes are deficient – remodeling needs to happen to place greater emphasis on cognitive and social effects of technologies

- **<u>Historical analysis:</u>** Demonstrates how technologies influenced (a) strategic surprise (b) strategic communications (c) public support/perceptions (d) informational and cognitive processes

Implications? Working on human/machine teaming solutions and processes essential, training implications – verification, exercises, etc. need to take on technology-enabled manipulation and disinformation dynamics, and focus more on socio-psychological effects

Questions?

Simona.Soare@iss.europa.eu   jburton@chathamhouse.org