

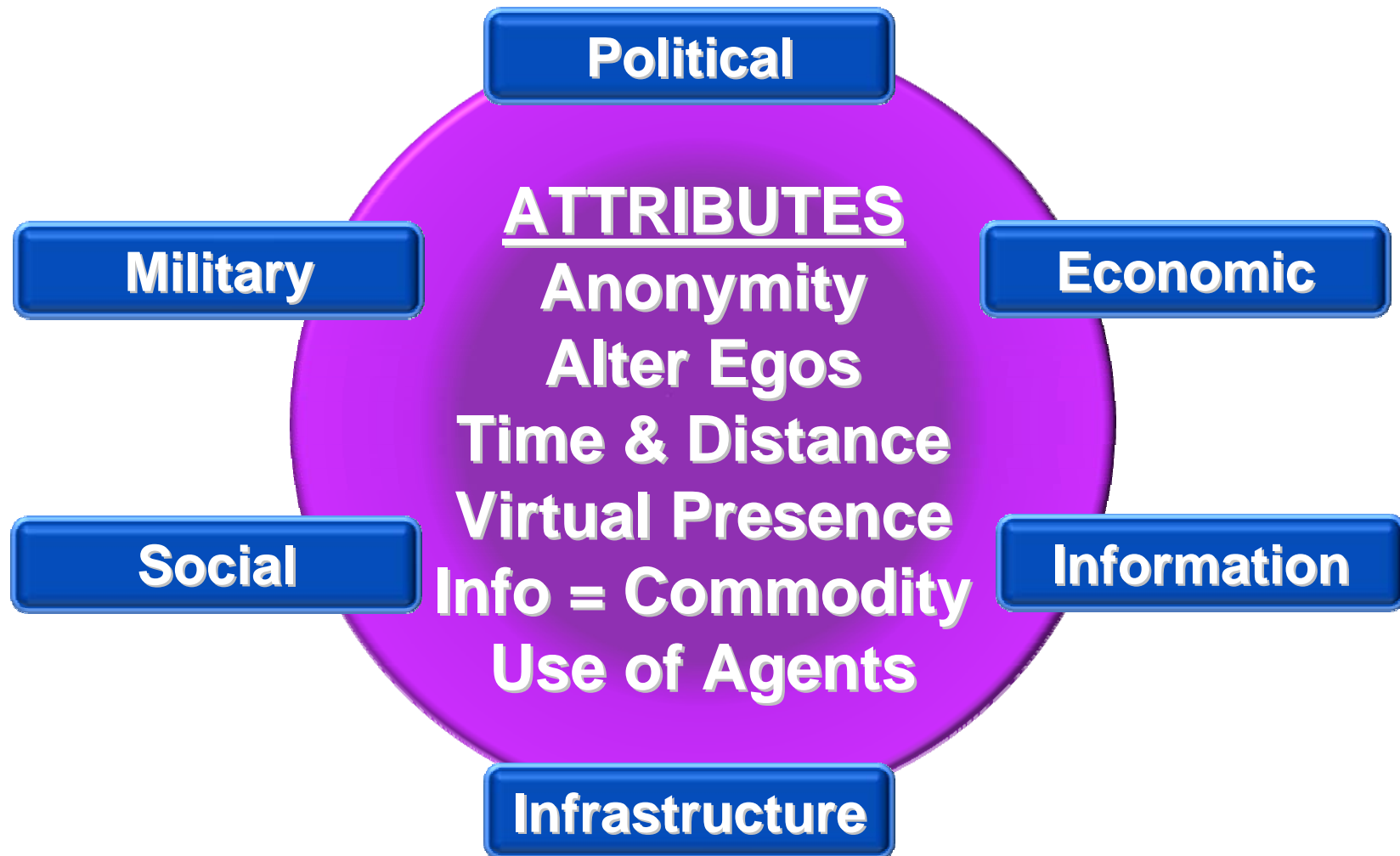
# A&D Cybersecurity

## EMPOWERING CHANGE MANAGEMENT FOR HUMAN OPERABILITY / AWARENESS

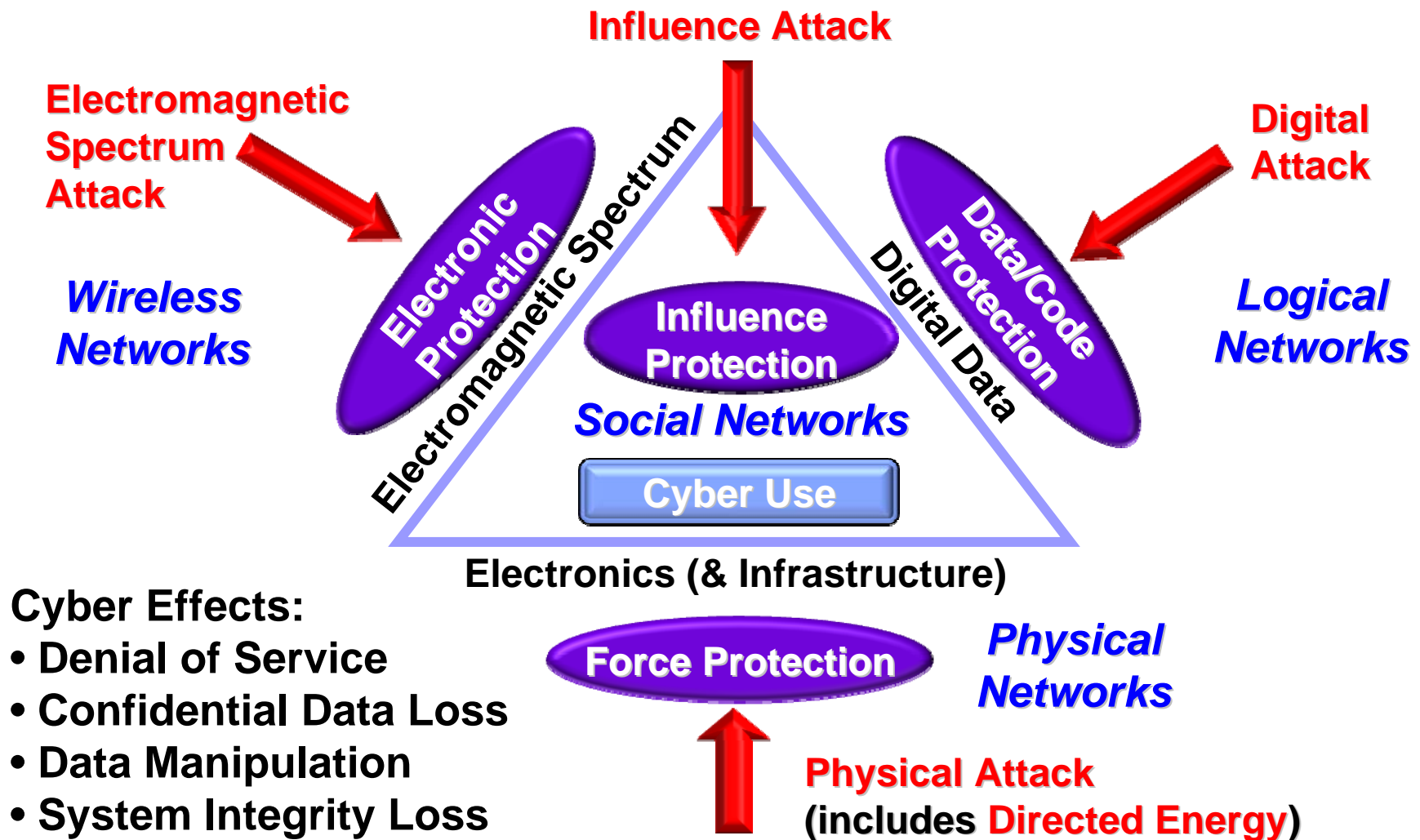
- **Dr. Alenka Brown**, Senior Research Fellow & Lead for Human Interoperability Enterprise Program, National Defense University
- **Robert Elder**, Lt. Gen., USAF (Ret), Research Professor, George Mason University
- **Linda Meeks**, Chief Information Security Officer, The Boeing Company

Moderator: **Dr. Aaron Budgor**, NCOIC, and Professor, Naval Postgraduate School

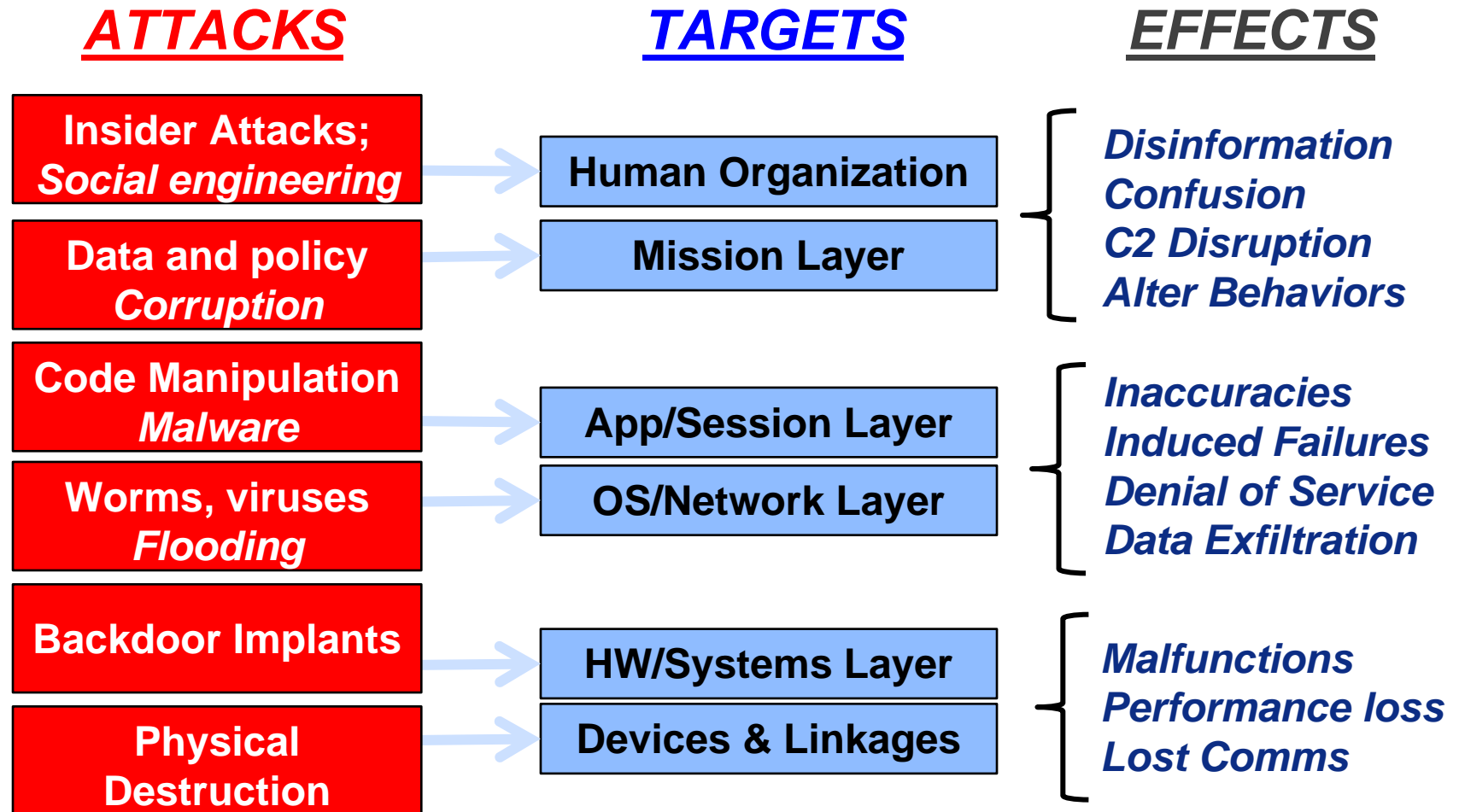
# *Cyber Challenges & Opportunities*



# Cyber Defense



# Cyber Assurance: Effects Focus





Engineering, Operations & Technology  
Information Technology

# Cybersecurity

Empowering Change Management for Human  
Operability/Awareness

**Linda Meeks**

Vice President, Chief Information Security Officer  
The Boeing Company

# Cybersecurity Threats

Engineering, Operations & Technology | Information Technology

## Continuous

- *Increased Volume*

## Advanced

- *Difficult to Detect*
- *Highly Skilled*

## Persistent

- *Multiple Tries – Different Paths*

## Our Response

### Increase and Upgrade

- monitoring
- detection
- prevention

### Adapt and Evolve

- techniques
- technologies

### Refocus and prioritize

- statement of work

### Educate and Involve

- everyone

**“Change” is a constant expectation**

# Cybersecurity – Change Management

Engineering, Operations & Technology | Information Technology

*What is changing?*

*Why change?*

*How changes made?*

*What do I do?*

*When do I act?*

- **Cybersecurity critical to business survival**
- **Organize and demonstrate priority**
- **Support by Executives and Leaders critical**
- **People must identify with the treat**
- **Simplify Change**
- **Engage *all* -- everybody has role**
- **Pace, Sequence, Segment - manage impact**
- **Communicate – continuously**
  - What, Why, How, When
- **Clarification and support through process**

***Active change management: threats – technologies – enterprise – people ...***

# Password to SecureBadge

Engineering, Operations & Technology | Information Technology

***What***      **Adopted more secure technology for authentication**

***Why***        **Password technology no longer effective**

***How***        **Prioritize conversion to SecureBadge *by risk***

***Remote access***

**Segmented Population for conversions**

**Manageable Size for each group**

**Communication Early and Often**

**Executive Understanding and Support**

**Early general explanation of change and objective**

**Why it's important to them**

**Enterprise, Everybody has role**

**How to get ready – and what will happen, when**

**Immediate Feedback to Questions or Concerns**

**Leverage major upgrade events**

**Windows 7**





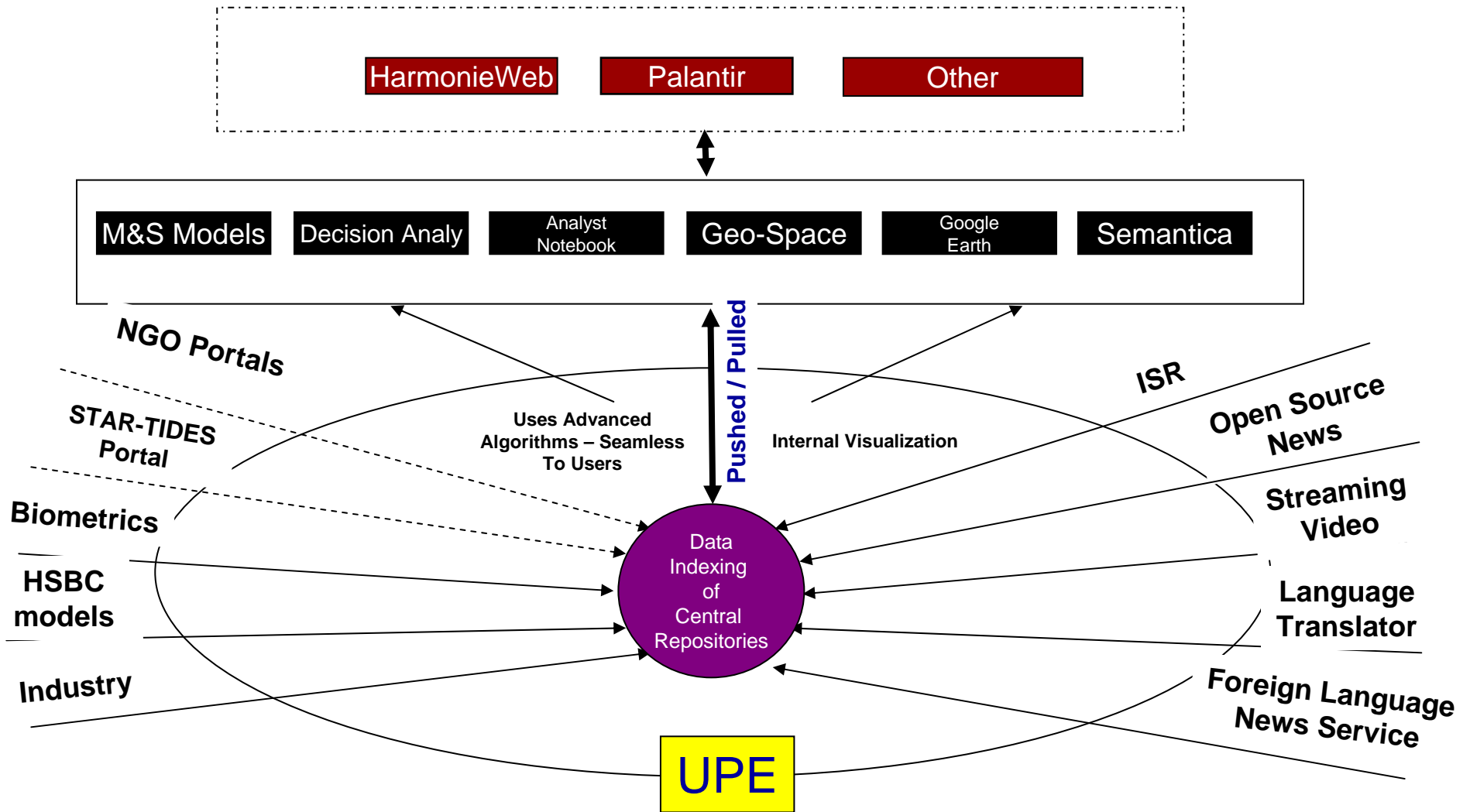
# Human Interoperability and Cyber Security



**Dr. Alenka Brown**  
**Sr. Research Fellow**  
**National Defense University**  
**Center for Technologies and National Security Policy**



# Interoperability of Integrated Data/Information Exchange





# Human Interoperability

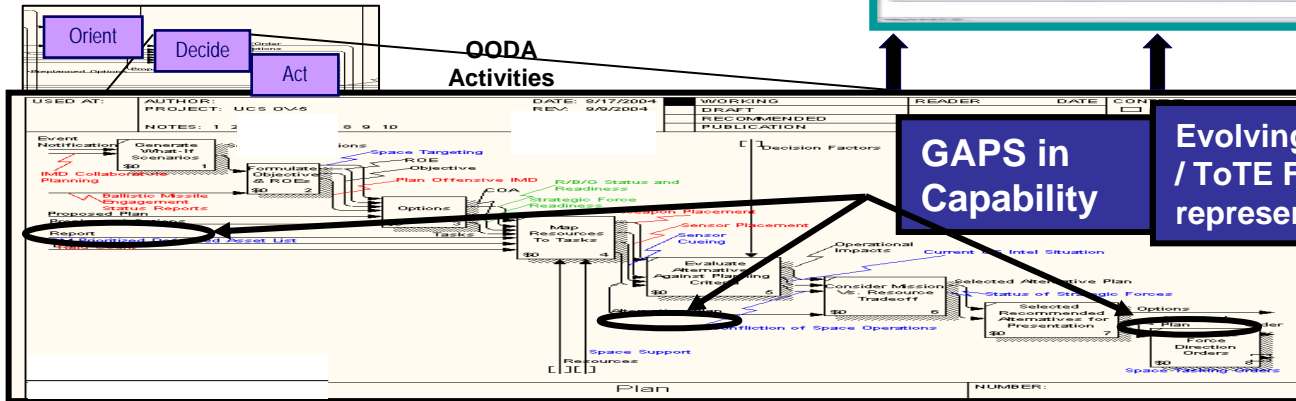
## Cyber and Net-Centric Issues with Flow of Information



*Underlying activities to get to* →

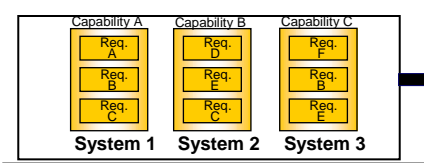


Operational  
CONOPS

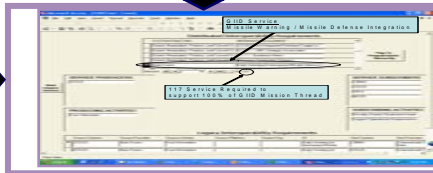


**GAPS in Capability**

**Evolving Capability within the OODA / ToTE Framework provides a visual representation of required activities.**



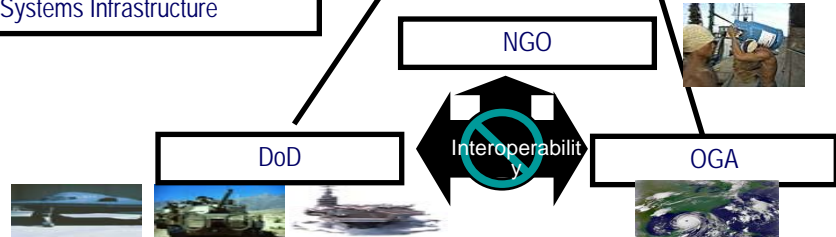
System Contribution, Supporting Systems Infrastructure



**Common Language Discovery**

De-confliction of language inhibitors

**Policy & Governance**



Outputs

- Performance Requirements
- Integration Requirements
- Functional Requirements
- Associated Architectural Products



# Human Interoperability

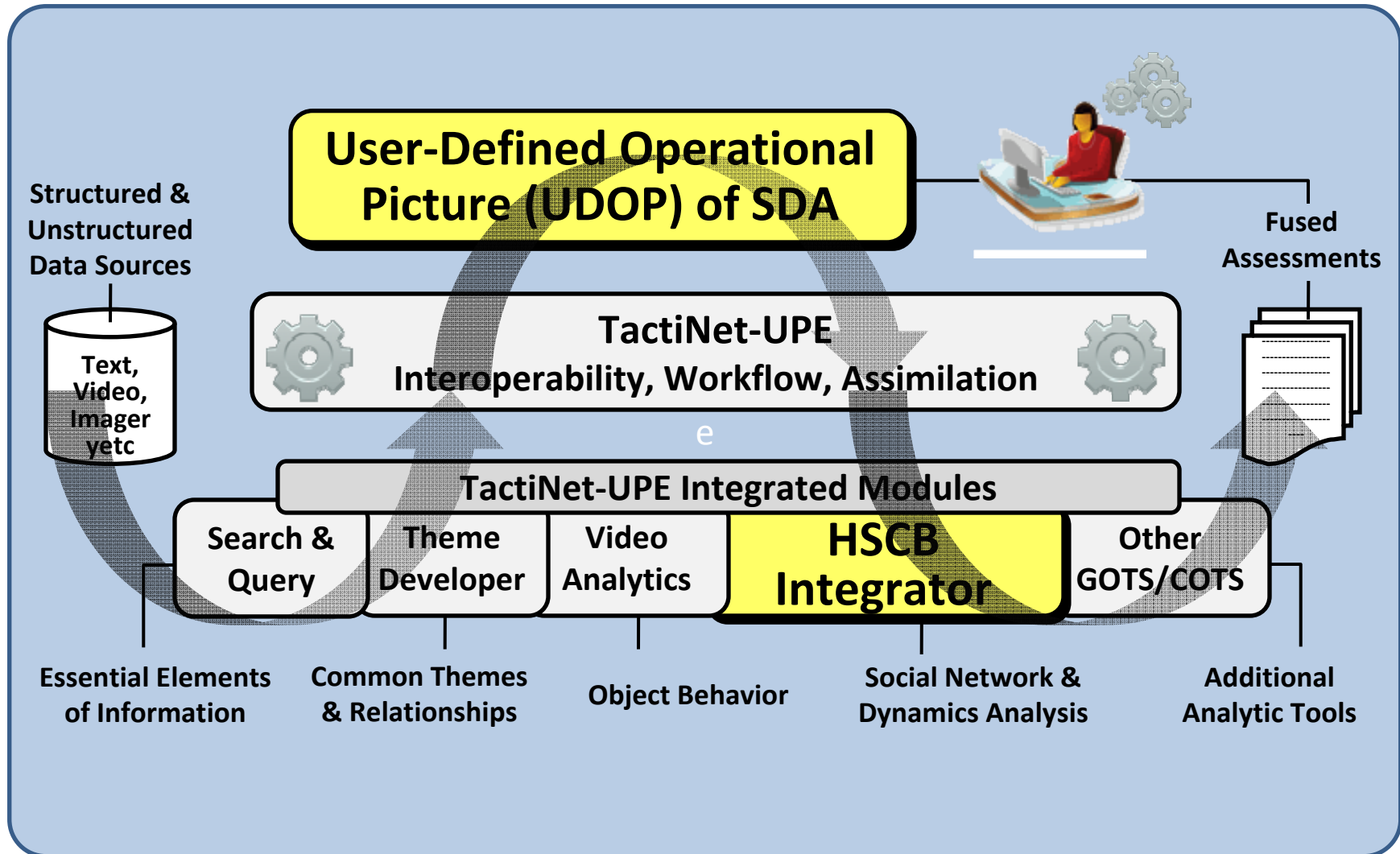
## Human Cyber Terrain Issues



- **Understanding human behavioral responses of incongruence**
  - what is trusted?; who is trusted?; how is “it” or “who” trusted?
  - peeling back the multiple layers of meaning
- **Understanding cultural behavioral imprinting**
  - behavioral norms in reciprocal social interaction
  - trust-building across different cultures and domains security and counterintelligence
- **Cyber Power relationships**
  - communities formed, exercised and evolved dynamically
  - relationship between spaces, culture and identity
  - virtual boundaries and leadership
  - no boundaries



# A Unified Process Environment for Social Dynamics Awareness (SDA)





# POC Information



**Dr. Alenka Brown-VanHoozer**  
**SES, Sr. Research Fellow**  
**Lead for Human Interoperability Enterprise**  
**National Defense University**  
**Center for Technologies and National Security Policy**  
**Force Transformation**

**202-685-6344 (w)**

**865-207-9054 (cell)**

**[brownvanhoozers@ndu.edu](mailto:brownvanhoozers@ndu.edu)**

**[brownvanhosa@ornl.gov](mailto:brownvanhosa@ornl.gov) (blackberry)**

## EMPOWERING CHANGE MANAGEMENT FOR HUMAN OPERABILITY / AWARENESS

- **Dr. Alenka Brown**, Senior Research Fellow & Lead for Human Interoperability Enterprise Program, National Defense University
- **Robert Elder**, Lt. Gen., USAF (Ret), Research Professor, George Mason University
- **Linda Meeks**, Chief Information Security Officer, The Boeing Company

Moderator: **Dr. Aaron Budgor**, NCOIC, and Professor, Naval Postgraduate School