



# Intelligence for Peace: AI in UN Field Operations and Cyber-peacekeeping

AI for Social Good - AAAI Fall Symposium 2020

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14 November 2020



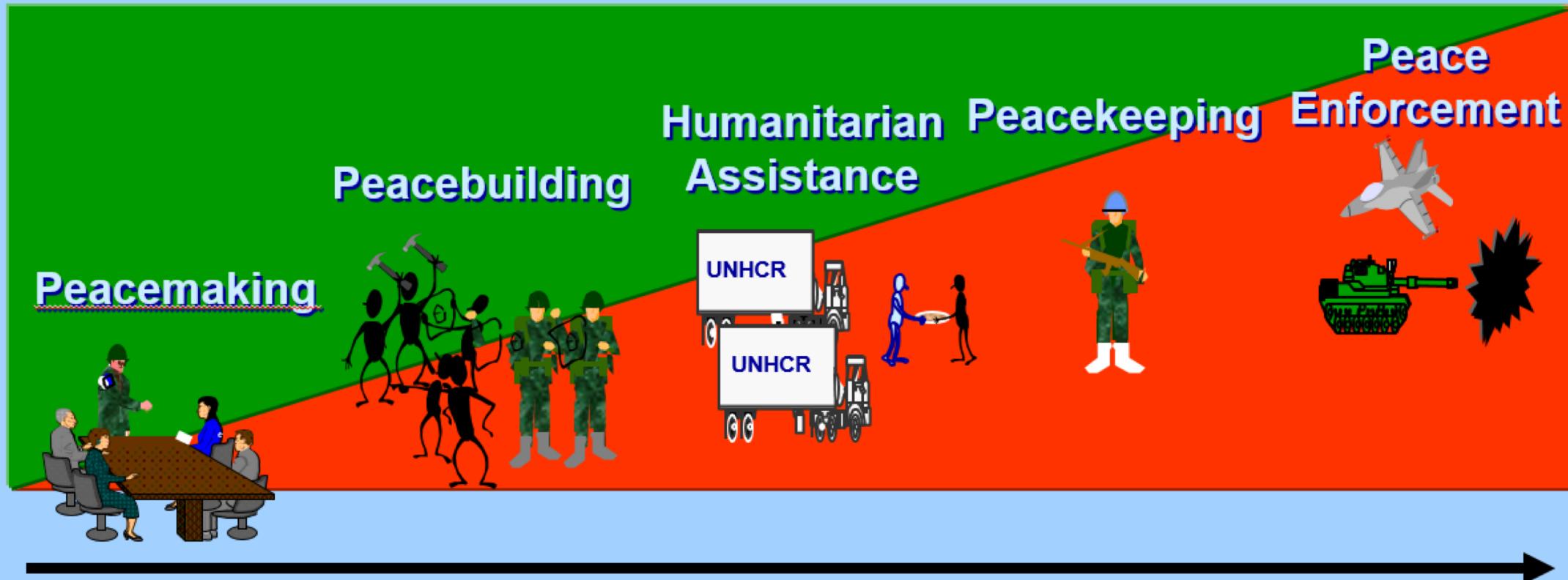
# Introducing peace operations



George Clooney's short video in style of this day, "What is peacekeeping?"  
[www.youtube.com/watch?v=C-2rv8s8Zmg](https://www.youtube.com/watch?v=C-2rv8s8Zmg) (1:01)

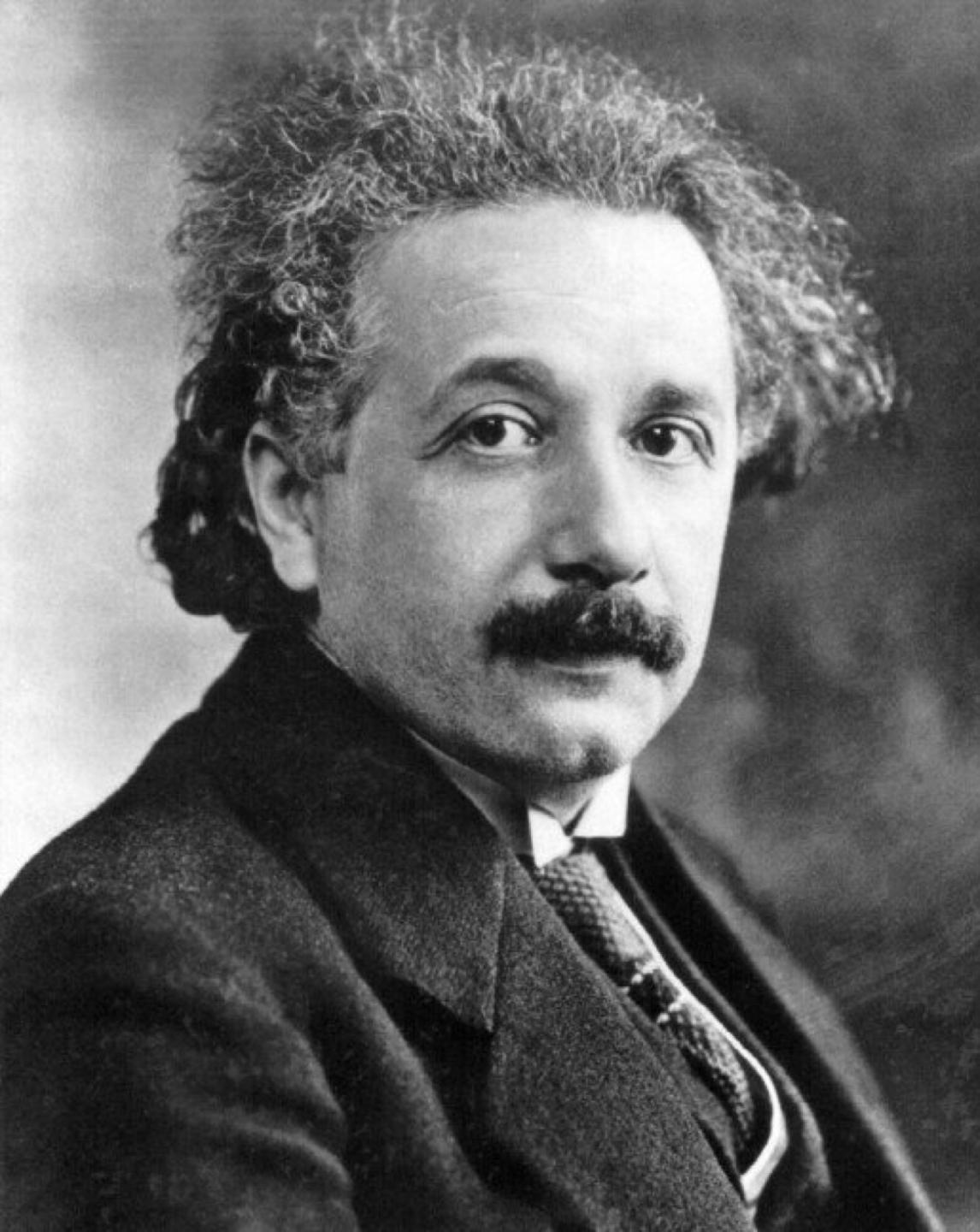


# Peace operations



**Violence  
potential  
for each  
role**

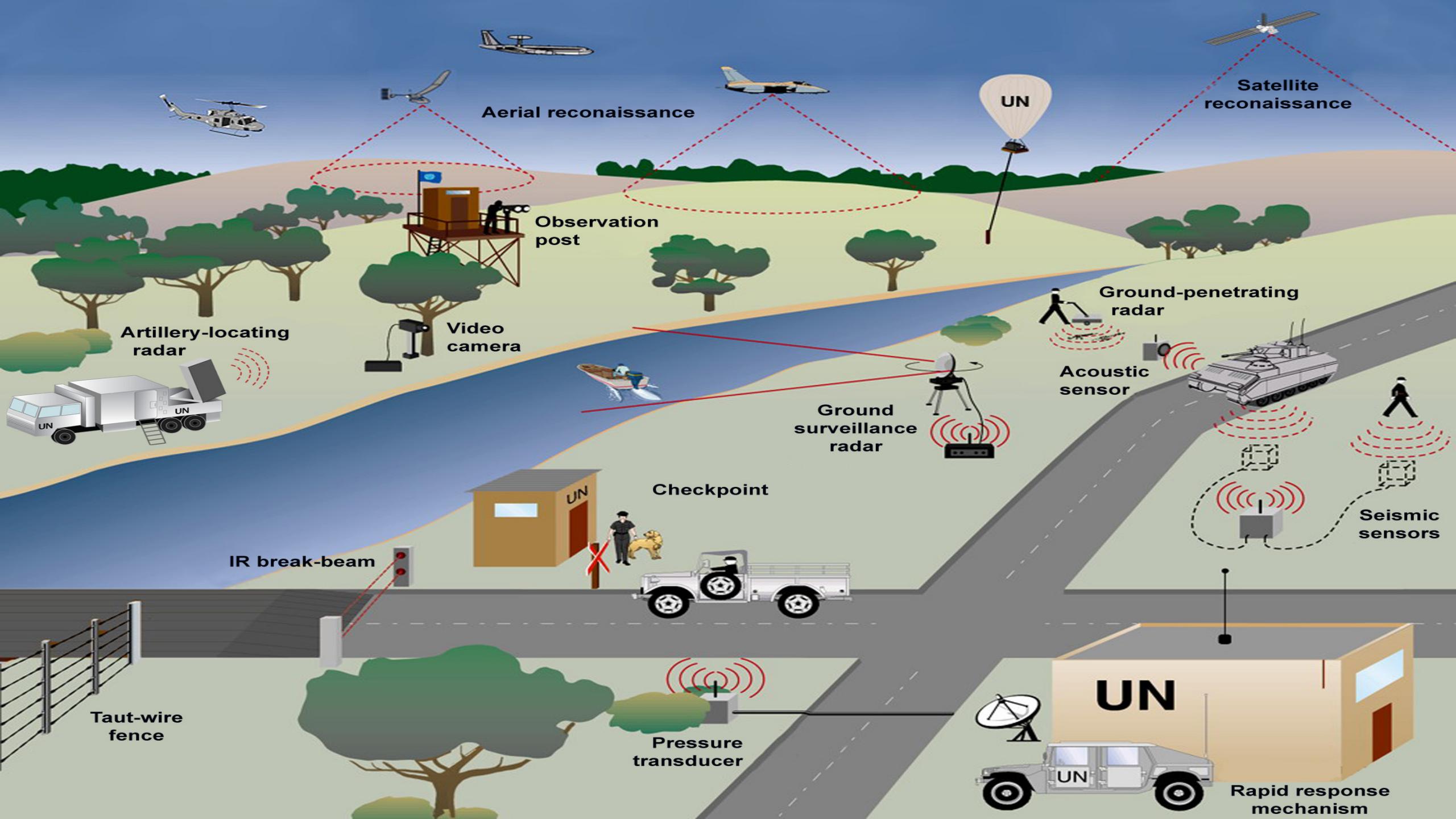
+ Conflict Prevention



“Concern for man himself [humanity] and his [its] fate should be the chief interest of all technical endeavors.

“Never forget this in the midst of your diagrams and equations.”

– Albert Einstein



# Canadian Coyotes in Ethiopia-Eritrea



CF Combat Camera, ISD01-0030a, Bernier, 4, 2001

- Secure checkpoints
- Temporary Security Zone
- Night observation

# Secure Networks



*Mali Mission Secure Network*

## **Field Missions**



**UNHQ**

**Brindisi  
(UNLB)**



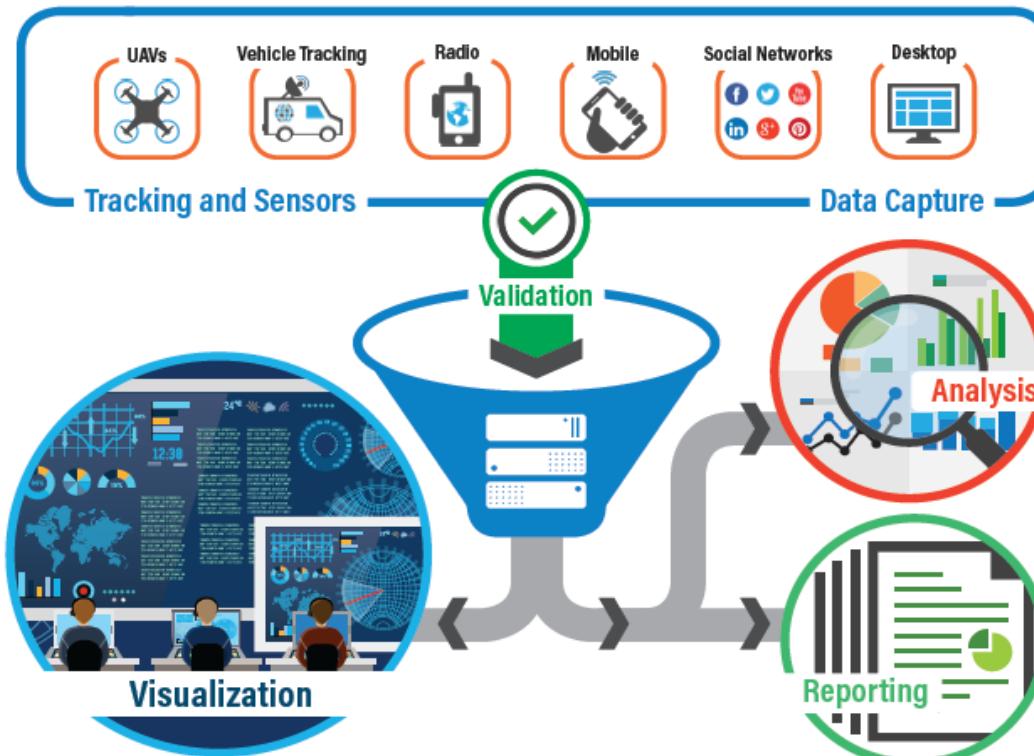
**Valencia  
(UNICTF)**

Global Services Centre: “Twin techn centres”

# Situational Awareness Programme



## Product Design and Delivery



UNCLASSIFIED

United Nations  
Department of Peacekeeping Operations /  
Department of Field Support  
Ref. 2017.07



## Policy

### Peacekeeping Intelligence

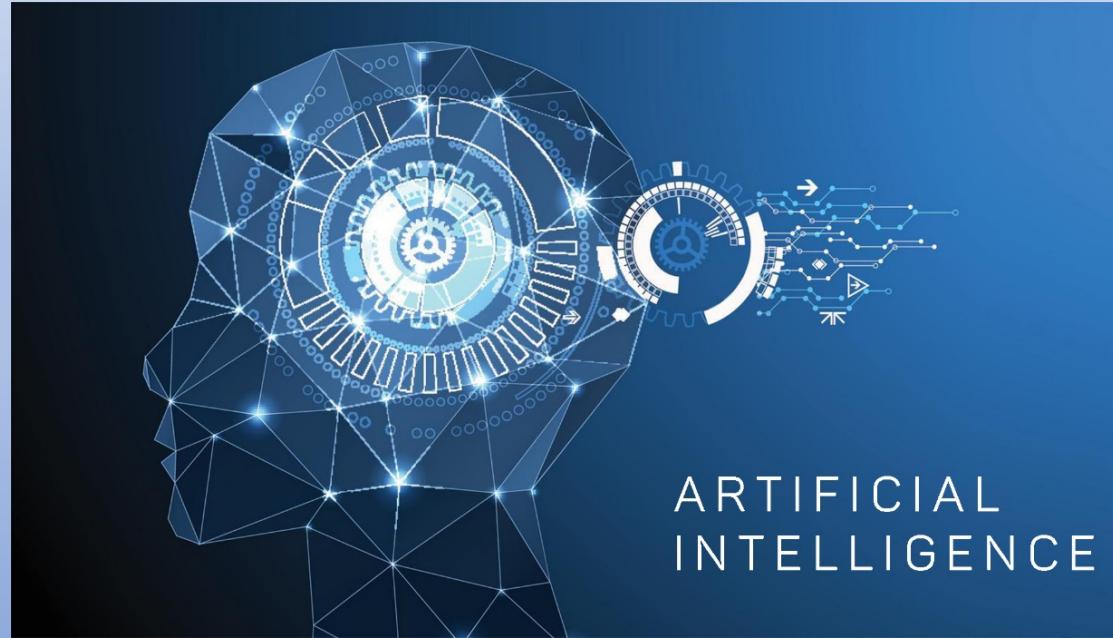
Approved by: USG DPKO  
USG DFS  
Effective date: 2 May 2017  
Contact: DPKO-DFS/DPET/PBPS Policy Planning Team  
Review date: 2 May 2019



**unite** aware

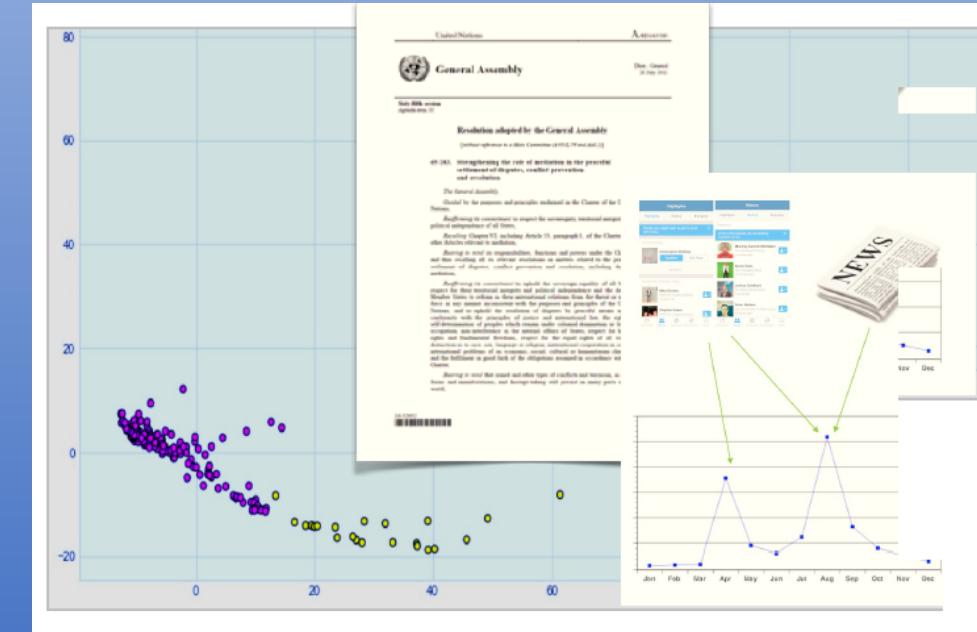
Situational Awareness—  
Informing Decision Makers

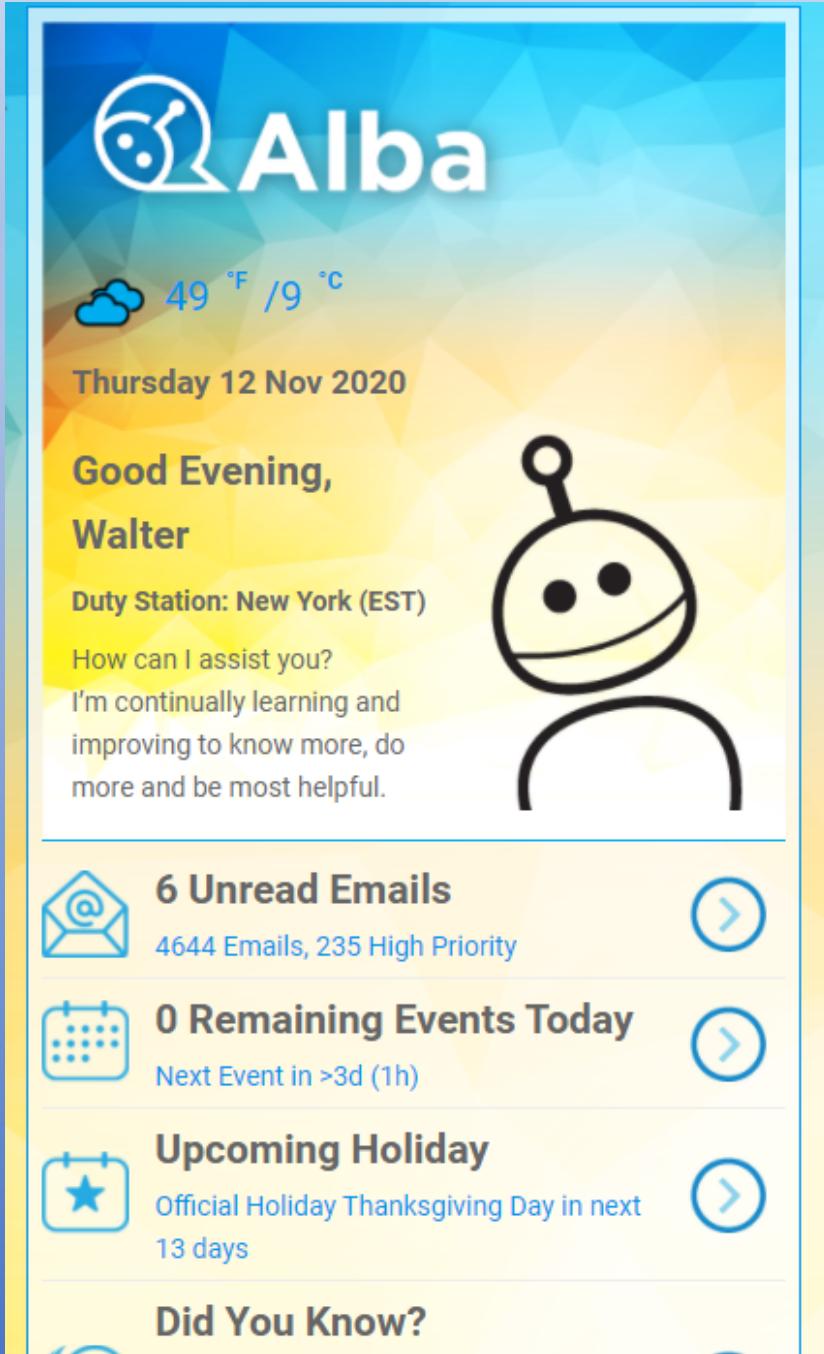




## Prototypes

- **document summaries** (trained through feedback from users)
- violence prediction for **elections** (trained with data from previous events)
- political alignment in GA **votes** (using clustering techniques)
- Image **recognition** for humanitarian assessment
- **classification** of humanitarian documents
- Social **media** analysis





- conversational chatbot
- assist Secretariat find UN-related info
  - Email and scheduling
- Grow smarter with use, broaden its scope of knowledge, develop new skills, and converse in other official UN languages

# Biometric Recognition: bumpy ride ...

- Congo (EU mission): Iris scanner to pay soldiers
- Yemen: restart food deliveries to
  - biometric registration to monitor supply chain process and reduce food diversion
  - Houthis opposed
- UNHQ security
  - Opposed by Union



# Cooperative monitoring

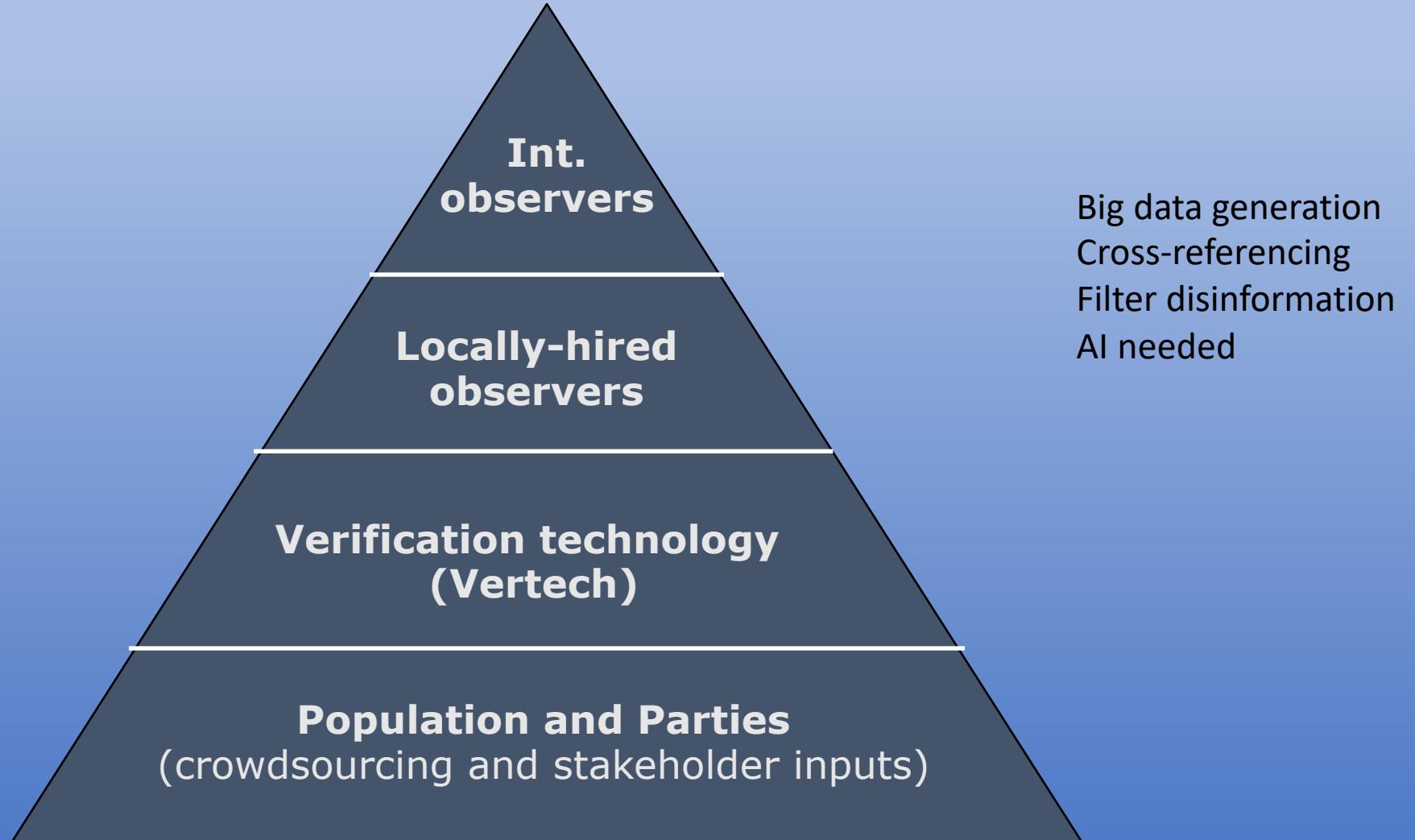


validated information. Indeed, the UN's power to protect depends on its power to connect. In an age when peace operations are mandated for the protection of civilians, it is essential to connect with them. Population-centric operations give peace a better chance, continuing even after the peacekeepers have left. The United Nations can help turn the fog of war into the clarity of peace, enabled by new technology.

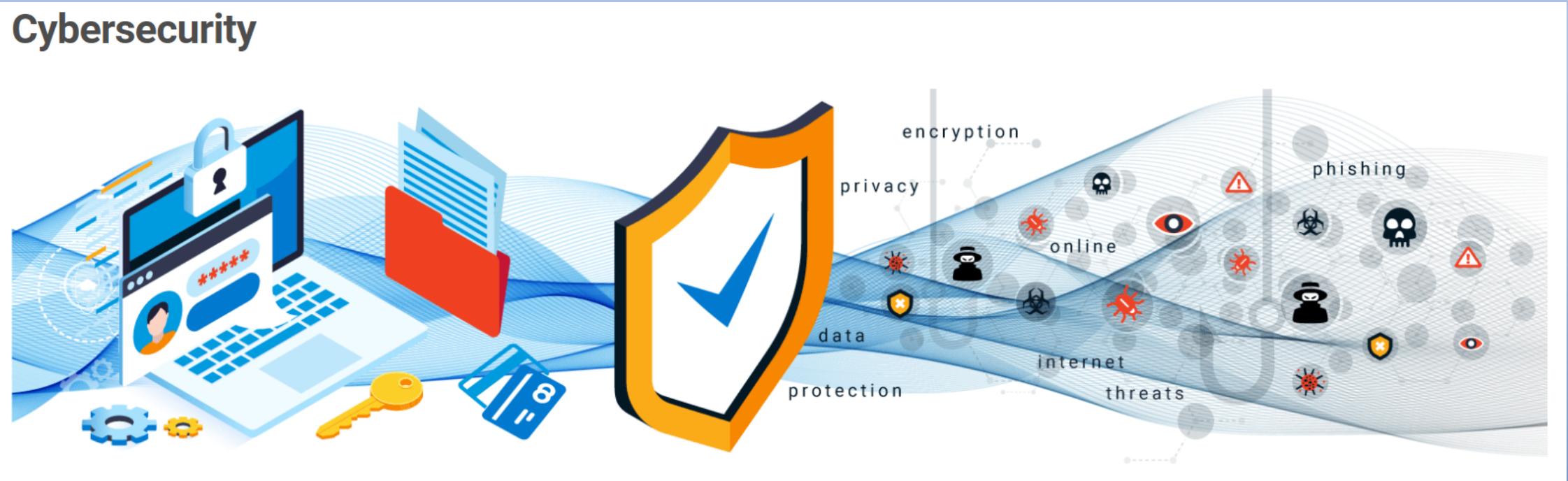
# “Participatory Peacekeeping”

- Cell phone revolution
- Social media & crowdsourcing
  - Info gathering & dissemination
- Crisis mapping
- “Protection through Connection”
- “Coalition of the Connected”

# Peace monitoring: layered approach



# Cybersecurity



- Many threats
- Automated, intelligence response
- Protect: UN, peace ops, people in the field

# Cyberspace



# Threats

- State
- Non-state
- Hybrid/proxy actors/systems
- Spying
- Threatening
- Inciting violence
- Undermining democracy
- Damage

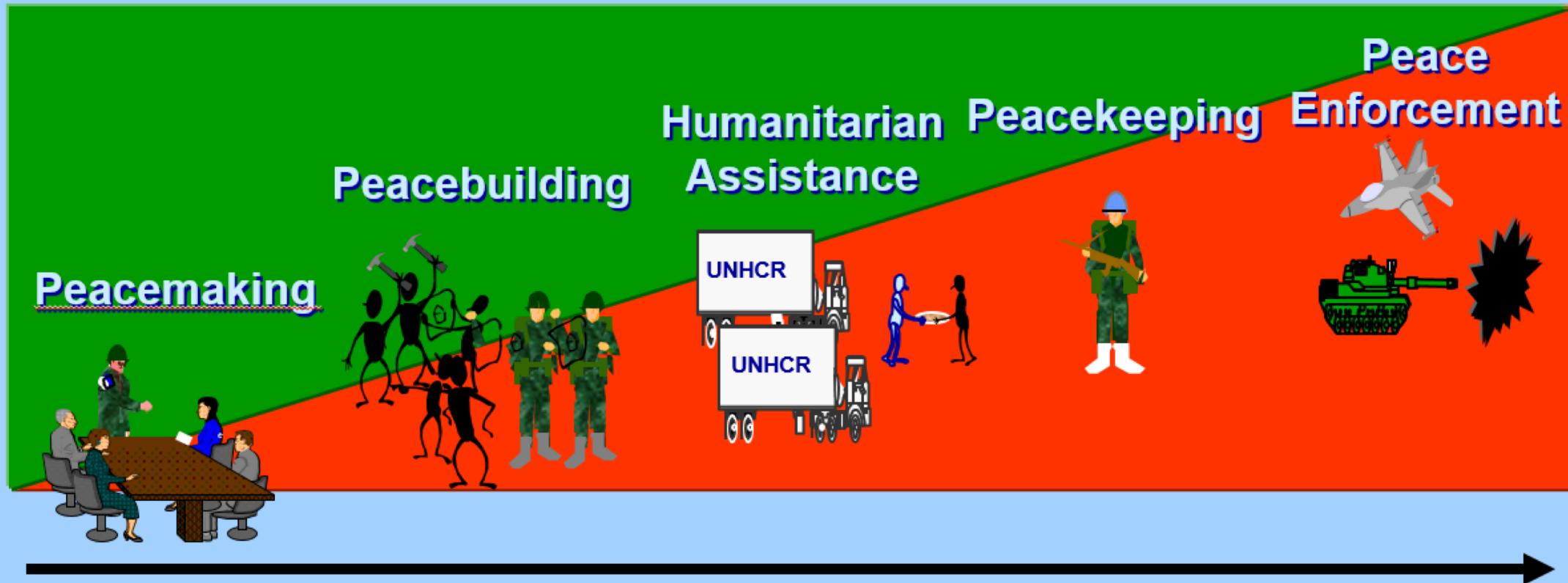


# From physical space to cyberspace?

- Analogous?
- Attacks, conflict
- Conflict management
- Rules? Agreements?
- **Peacekeeping Roles?**
- Confidence building?

Cyber	
Attacks	<ul style="list-style-type: none"><li>– More frequent</li><li>– Easier to hide; harder to attribute</li></ul>

# Peace Operations



+ Conflict Prevention

# Investigation & Attribution



Technical  
Institutional  
Personal

# Monitoring & investigation



- Observe attacks

- Before (for prevention)
- During (for mitigation)
- After (for investigation)

Example:

- Border Gateway Protocol (BGP)
- Routing tables

## Challenges

- Attribution

## Solutions

- Expertise
  - Soln: Experts (cyber-operators) on loan or contracted
- Computer Incident Response Centre
  - Global coordination

# Fact-finding in the physical world



UN

# UN fact-finding in Cyberspace

## UN Security Council panel finds Cosmos Bank cyber attack motivated by N Korea

*Its report comes nearly seven months after the malware attack on the bank.*

By [Rashmi Rajput](#), ET Bureau | Mar 27, 2019, 07.25 AM IST



2  
Comments

Save



Getty Images



*The UNSC report would aid in the probe but most of the information it has quoted is through open sources.*

MUMBAI: A panel of experts appointed by the [UN Security Council](#) has stated that the cyber attacks on Pune-based Cosmos Cooperative Bank, from which hackers allegedly withdrew Rs 94 crore from ATMs in 28 countries, was “motivated” by [North Korea](#).

The panel was set up to study various UN sanctions breached by North Korea. Its report comes nearly seven months after the malware attack on the bank.

# Interposition



- Internet traffic checkpoints
- Protective layers
- Anti-virus filters

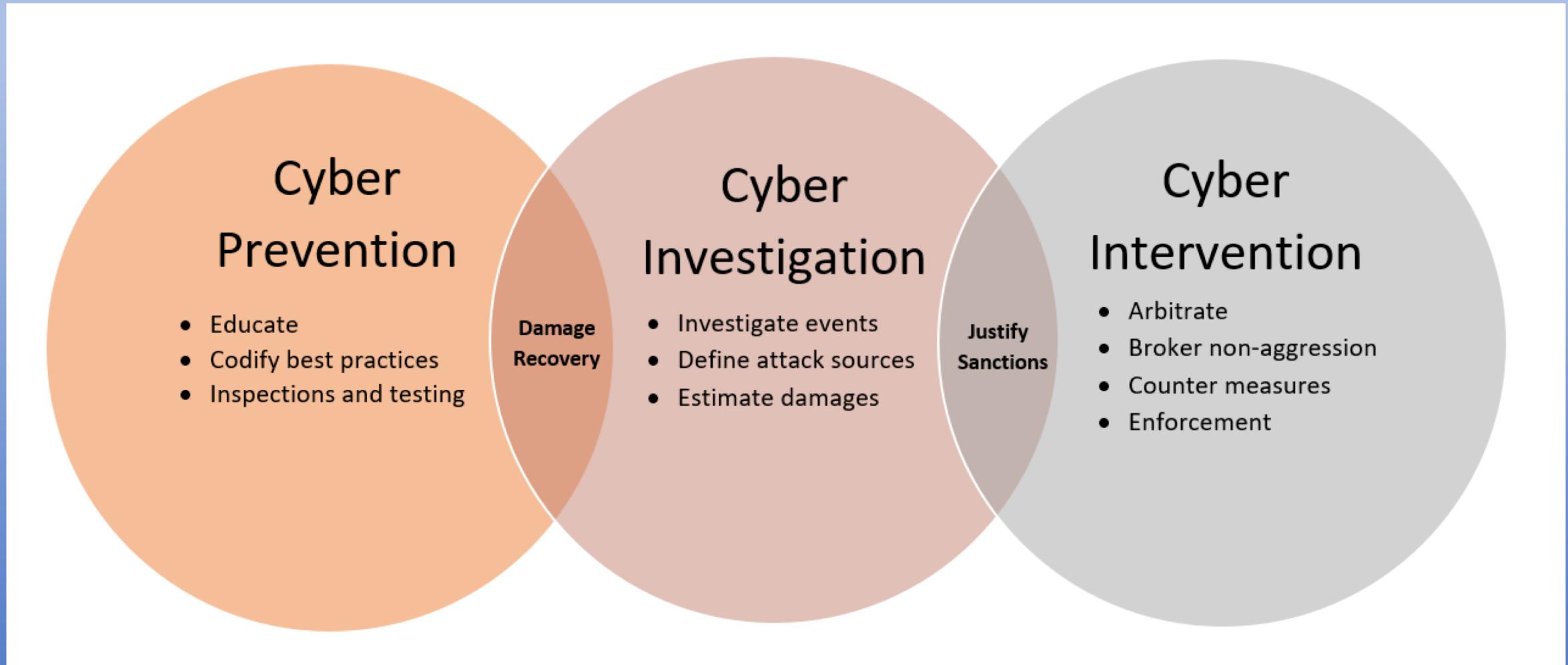
## Challenges

- Routing traffic to checkpoints
- Causing slowed traffic

## Solutions

- Faster computers
- Cooperation with industry & national authorities

# Cyberpeacekeeping roles





“Together, let us make sure we use artificial intelligence to enhance human dignity and serve the global good.”

— UN Secretary-General António Guterres, 2017



*Professional innovators for peace*



# Global problems require global solutions!

