Human Interoperability and Net-Centric Operations

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Human Interoperability Enterprise

Understanding and identifying the "what" and "how" of the inter-relationships of social-systems and human-systems integration independent of and within networks.

Why is this significant?: Allows US Government to rapidly build synergism amongst mission and non-mission partners in establishing cross-cultural social networks and human-system integration. Establish reliable, effective, and trusted human net-centric environments.

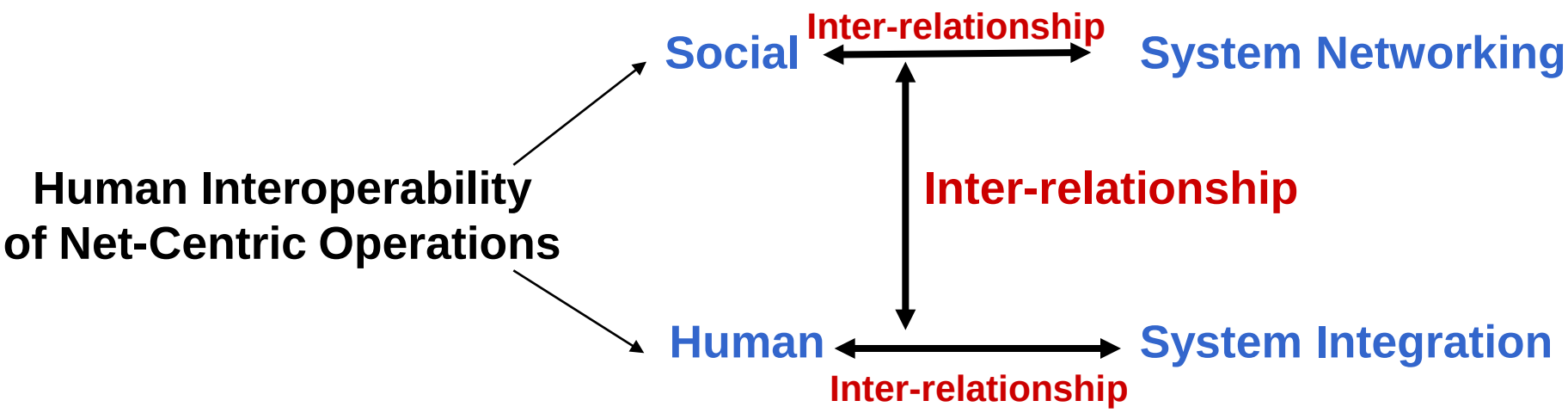
Where? – In dissimilar, stressed, and/or self-motivated environments.

How? – By exploring the processes that US Government and its mission partners incorporate in its training, education, and applications for collaboration in building partnerships and partnership capacity.

End State? – Produce effective processes that sustain trusted human networks for sharing of information, knowledge, techniques, technologies, and behaviors (beliefs and values) across Net-Centric Environments of Operations.

Human Interoperability Enterprise

Human Interoperability focuses on the processes of the inter-relations between diverse cultures within and between SSN and HSI.



Understand the Inter-relationships

Identify processes of the inter-relationships that are "compatible" for reliable, effective, and trusted social/human-system networks in net-centric environments of operations.

Thus,

- **Assess the human factor indicators/attributes that contribute to trust or mistrust factors of social/human-system networks in net-centric environments of operations.**

- **Assess the enablers/inhibitors for sharing of information and behaviors across diverse cultural domains of net-centric environments of operations.**

Understand the Inter-relationships

- **(Continued)**

  - **Assess the cognitive-matching in messaging exchange (the same message received, is the same message sent)**

  - **Assess ego-ergonomics**
  - **Assess the social-cultural interfaces**

  - **Assess the policy, doctrine, standards and technical procedures as pertaining to social and human-system networks for *alignment, adaptability, and agility.***

Understand the Inter-relationships

Understand - **the issues, barriers, gaps, and processes that cause inadequate or incompatible social/human-system integration within networks.**

Achieve the Understanding - **through studies, experimentations, and venues of operations involving disparate groups of people, organizations, social infrastructures, and enabling technologies. For example:**

The rapid organization of reliable disparate social networks from hastily formed physical networks. Or, the rapid reestablishment of a degraded human-system social network.

Understand the Inter-relationships

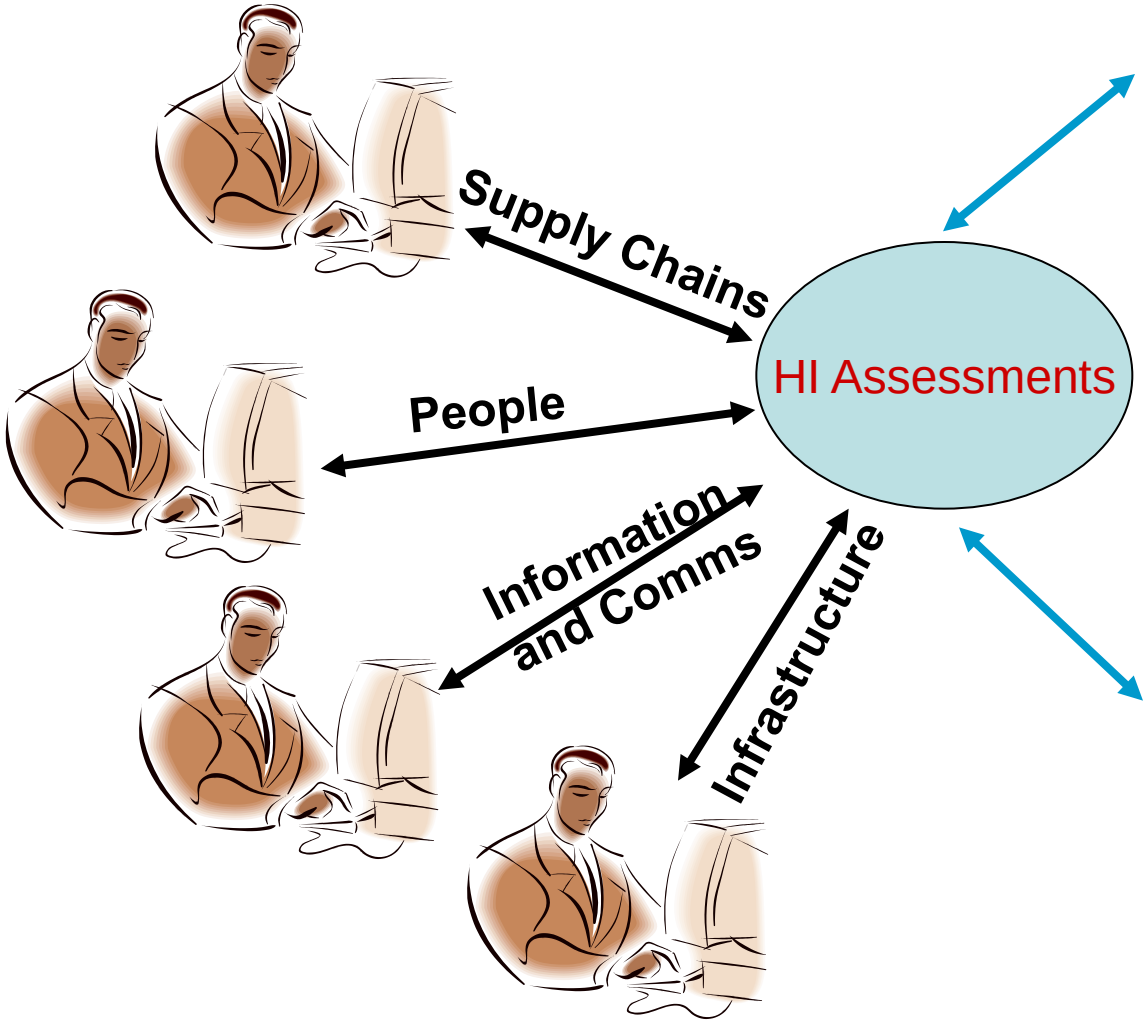
End State for Understanding - enhance or refine the social/human-system integration of networks per policy, standards, practices, training and education that is required for the US Government to (though not limited to):

- **rapidly put in place reliable and efficient social-system networks for information sharing**
- **build partnership capacities that go beyond technological architectures**
- **understand how to sustain - "smart power" capability in Irregular Warfare, Humanitarian Assistance, and Disaster Relief Events.**

Understand the Inter-relationships

- **Test**
  - **Policy, Standards, and Operational Procedures for,**
    - o **forming human networks**
    - o **human to human communications**
    - o **organization to organization communications**
    - o **human system integration**
    - o **information sharing across disparate domains:**
      - ➢ **DoD-Coalition-Interagency-intercommunity**
  - **Operational procedures that result in sharing of cultural and cognitive behaviors.**
  - **The socio-cultural boundaries for convergence of governing policies and standards.**

HI Example: Disaster Scenario



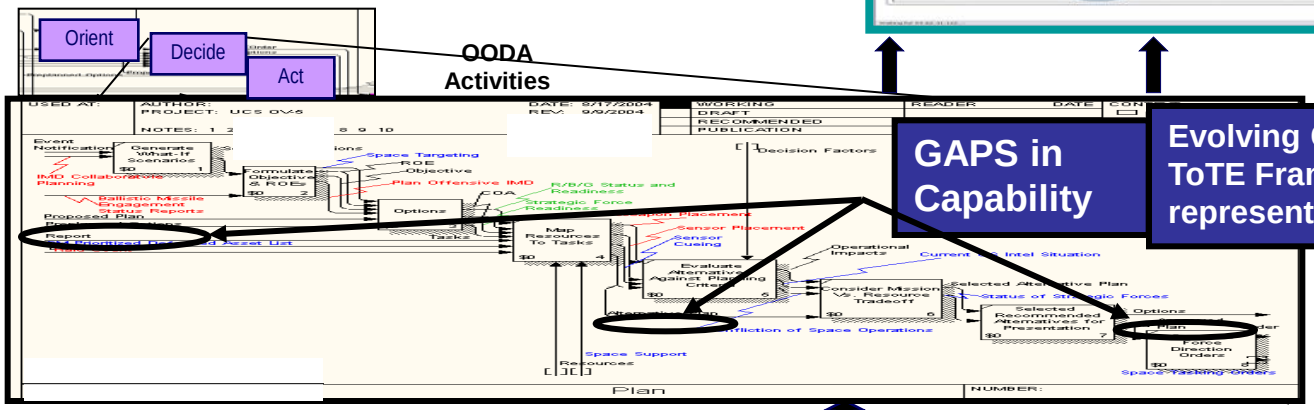
Components

Human Interoperability

Geo-Ergonomic of Information Flow Across Multiple Languages and Cultures

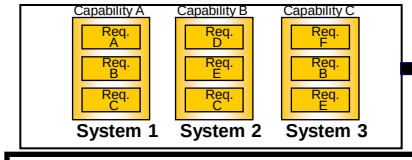
Underlying activities to get to

Operational CONOPS

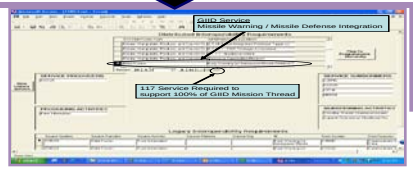


GAPS in Capability

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

SUMMARY

- US Government spends a great amt of $ and resources on information technology to improve government efficiency and effectiveness.

- Technology though is simply a tool to enhance our ability to share information, beliefs and values.

- To use these tools, there must be a shared understanding between those sharing the information and the human interoperability that establishes this shared understanding effectively with a sustainment of trust and compatibility.

POC Information

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