



Topical Thread Human Decision Making



Our research in the **Human Decision Making** thread addresses new technologies and processes that support individual decision making and team collaboration in the C2 environment, and emerging tools directly related to decision making. Seven projects have been highlighted that address challenges associated with Human Decision Making. A **one-hour guided tour** (starting at **Thread Central** at **10 am** and repeated at **1:00 pm**) provides an overall orientation of the work being done in each technical area plus in-depth presentations by four projects. Please visit the remaining projects using the map provided (over).

Cognitive Aspects of Decision Making

DS-02 Explanation Based Decision Making

Research in human judgment and decision-making shows that novices and domain experts make predictable mistakes in forming assessments, estimates, and predictions. This MSR will evaluate a framework for the design of cognitive support tools, based on the claim that explanations are central to how people reason and decide.

Tour

DS-07 Mental Models in Naturalistic Decision Making

System engineering efforts are often based on informal and inadequate models of how people make decisions and what people need to make better decisions. This research project will develop computational models of the cognitive processes that underlie human decision making in prototypical command and control tasks.

Collaborative Decision Making

Tour

DS-04 Improving Human/UAV Interaction for Intelligence, Surveillance, and Reconnaissance

The increasing importance of UAV operations drives the urgent need to support efficient and flexible UAV operations. This research will focus on whether/how UAV teams could be distributed, and develop and evaluate interaction designs that support small teams operating multiple UAVs simultaneously.

DS-05 Applying User Models to Improve Team Decision Making

This MSR will develop models of users of collaborative environments to promote common situation awareness and understanding that can lead to successful collaborative decision making. The user models help monitor the quality of group interaction in pursuit of a solution to a mutual problem.

DS-06 Improving Time-Sensitive Team Decision Making

This MOIE will apply cognitive techniques to better understand the team decision-making process, and to explore effective ways to augment and leverage human capabilities via technologies and improved processes.

Tools for Decision Making

Tour

DS-01 Analysis Support Predictive Battlespace Awareness

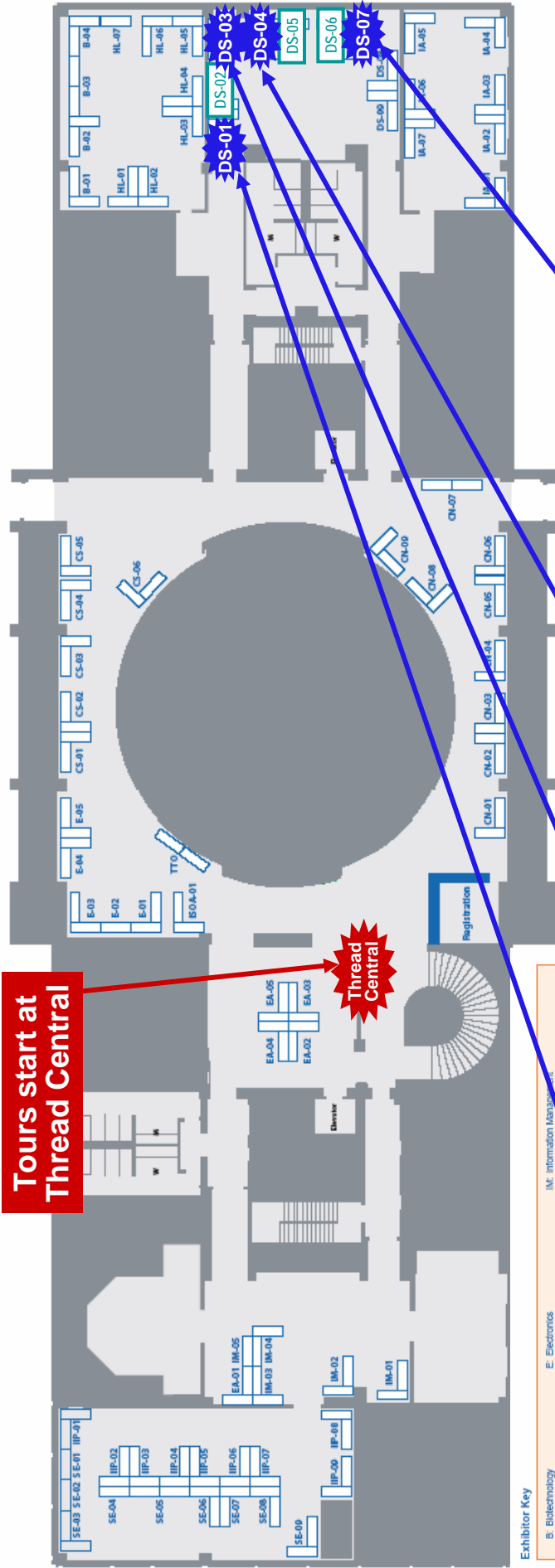
This MOIE seeks to establish a PBA analysis framework, determine the "ground truth" for predictive analysis capabilities through experimentation, and contribute to furthering the state of the art for the various components of the framework. Results from experimentation will be compiled into recommendations on "way ahead" planning and investment strategies for achieving PBA.

Tour

DS-03 Nonlinear Visualization Techniques

Warfighters constantly face situations that require immediate identification of essential information within a large information space. While data processing and data access continue to progress rapidly, real-time visualization techniques have not evolved to keep pace with this massive influx of data. This project will investigate nonlinear techniques for visualization of graphical data, with specific emphasis on semantic lensing strategies.

Human Decision Making



Tours start at Thread Central

Exhibitor Key

- B: Biotechnology
- CM: Communications and Networks
- CS: Computing and Software
- DS: Decision Support
- E: Electronics
- EA: Enterprise Architectures
- HL: Human Language
- IA: Information Assurance
- IP: Intelligent Information Processing
- IM: Information Management
- ISDA: Investigative Analysis and Operational Analysis
- MST: Modeling, Simulation, and Training
- SE: Sensors and Environment

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Thread Tour

Please also visit

DS-02 Explanation Based Decision Making	DS-05 Applying User Models to Improve Team Decision	DS-06 Improving Time-Sensitive Team Decision Making
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