



Cross Cutting Thread Enhancing Intelligence Analysis



Our research in the **Enhancing Intelligence Analysis** thread addresses technical issues in *Decision Support* (e.g., new models, methods, and tools for making judgments), *Human Language* (e.g., machine understanding of human languages), and *Intelligent Information Processing* (e.g., technologies, tools, and processes for the discovery, processing, and exploitation of information). Ten projects have been highlighted that address challenges associated with Enhancing Intelligence Analysis. A **one-hour guided tour** (starting at **Thread Central** at **11 am** and repeated at **2 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).

Decision Support

Tour

DS-12 Counter Deception Decision Support

The psychology of decision-making and deception is combined with existing belief management and planning technology to produce a counter-deception decision-support system.

Tour

DS-06 Indications and Warning (I&W) for Countering Terrorism (CT)

New processes, models, and tools can reduce analysis timelines and increase the quality of the analytic product, with the goal of achieving more accurate and timely warning.

DS-13 Structured Argumentation

Experimenting with structured argumentation tools and methods to improve the quality of analytic judgements.

DS-17 Analysis Support to Predictive Battlespace Awareness (PBA)

The most critical need in PBA is for analytic tools to support tracking information and predicting future enemy actions. This effort focuses on developing a framework for PBA experimentation.

DS-01 Modeling Complex Adaptive Behavior

Border screening is a highly constrained problem with many unknowns in threat and tactics. Simulation techniques are used to model this challenge from both an offensive and defensive cost-based perspective.

Human Language

Tour

HL-08 Improved OCR-Based Foreign Language Acquisition

Improving foreign-language OCR quality through evaluation and technology identification.

HL-07 Foreign Language-tool Improvement through Evaluation (FLITE)

The quality of language generated from machine translation (MT) tools can be improved by automated evaluation of language processing systems for multiple languages.

HL-01 Document Analysis Methods for Fraud Detection

Text-oriented information extraction methods can complement data-oriented methods to detect financial fraud.

Intelligent Information Processing

Tour

IIP-03 Audio Hot Spotting

Large volumes of recordings require rapid retrieval of segments relevant to a given query.

IIP-04 Social Network Management for Homeland Security

Emerging work in social network analysis and complex systems provides formalisms for characterizing the behavior of complex organizations.

