Threat Anticipation:
Social Science Methods & Models

Welcome

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Threat Anticipation and the Social Sciences

- Nature of threats diverse and changeable
- Most problems are global in scale, but with specific local implications
- Threat reduction operates at multiple levels
- Human behavior always at issue
Terrorism, for example:
Understanding the Terrorist Threat Requires an Understanding of Social and Cultural Factors

Social Sciences
- Sociology
- Political Science
- Anthropology, Economics
- Divinity, Cultural Studies
- Languages

Systems Sciences
- Decision Sciences
- Modeling
- Agent-based Simulation
- Validation
- Social Networks

Organizational Science
- Business Processes
- Communication
- Information theory

Complexity Science
- Network Analysis
- Complexity Science
- Genetic algorithms

Computational Science
- Languages, toolkits
- User interfaces
- Distributed computation

Cognition/AI
- Psychology
- Multi-Agent Systems

A Useful Model for Understanding Terrorism

Other
Argonne/Chicago Collaboration in the Social Sciences

- **Argonne: Decision and Information Sciences**
  - Multidisciplinary approach to research
  - Systems: analysis, integration, engineering
  - Computational social sciences, agent-based modeling and simulation

- **The University of Chicago: world class social sciences**
  - Political science, economics, sociology, anthropology, psychology, linguistics, history, human development
  - Area Studies and language
  - Center for International Studies

- **On-going Collaborations**
  - Courses: *ABMS 2004: Agent-Based Modeling & Simulation*
  - Projects: *The Micro-Macro Dynamics of Suicide Terrorism*
Center for Middle Eastern Studies*

South Asia Language & Area Studies Center*

Center for South Asian Studies*

Center for Latin American Studies*

Center for East Asian Studies*

Center for Eastern European, Russian & Eurasian Studies

Committee on African and African-American Studies

Committee on Central Eurasian Studies
Degree Programs & Courses
Public Outreach & Education
Transnationalism Project

Human Rights Program
Program for the Study of Violence, Conflict, & Security

Joint Threat Anticipation Center
Argonne/Chicago Collaboration in the Social Sciences

• The Joint Argonne/UC Structure Promotes Programmatic Collaboration

• DTRA Charter to the Joint Center for Threat Anticipation:

  “Develop baseline capability to expand and accelerate the art and science of anticipating threats.”
The Joint Threat Anticipation Center

• Phase I Goals
  • Develop frameworks and models for integrating cultural knowledge in meaningful ways to support policy analysis.
  • Identify areas of knowledge relevant to future security threats.
  • Review ASCO models from the standpoint of their theoretical and methodological underpinnings.
  • Facilitate a broader dialogue
    • *Within the research community*
    • *Between the research and policy communities.*