



## Measuring and Guiding Engagement for Smart Power

Twenty first century societies are driven by a world of opinion and pressure from many complex and distinct publics. It is vital for US interests to be able to effectively operate in this environment, often in direct and active competition by adversaries for hearts and minds. In the words of Defense Secretary Robert Gates, (July 2008) “Over the long term, we cannot kill or capture our way to victory.” To make intelligent decisions about actions related to perceptions, attitudes, beliefs, and behaviors, our political, military, diplomatic, and development leaders need to understand and engage in the dynamics of foreign populations throughout the world.

**Smart Power:** MITRE envisions the coordination and amplification of all instruments of national power through innovative strategies, methodologies, tools and relationships including:

- Innovative methods to assess perceptions, attitudes, beliefs, and behaviors of foreign publics
- Methods and tools to enable diplomacy, defense, and development leaders to understand the dynamics of communications among and engagement with foreign audiences
- Understanding how citizen reporting and social media affect friendly and adversary power (e.g., coordination, survivability, censorship, surprise)
- Systems to detect, track and counter viral extremist communications in global media systems
- Leverage of multi-disciplinary social science theory and methods
- Novel and effective methods to measure the impact of engagement actions such as global, persistent, multilingual social radar

**Smart Technologies:** Engagement is enabled by a range of methods and technologies including:

- *Population sampling and calibration* of surveys and media content analyses
- *Analysis of topic and subtopics* of interest in communications
- *Attribution* of authors (e.g., in blogs and other social media)
- *Conversational analysis* to understand individual and group dynamics
- *Sentiment analysis* to identify and classify individual and group attitudes and opinions
- *Summarization* (including both extraction and abstraction) from a range of media including web sites, blogs, and newspapers in both English and foreign languages
- *Modeling* of a broad range of social, cultural, and behavioral phenomena as well as media and communication modeling, potentially exploiting a broad range of, and integration across, modeling methods such as mathematical, Bayesian, and agent-based models
- *Geospatial and temporal* analysis and visualization

**Sentiment Analysis for Strategic Communication Assessment (SASCA):** Indications and warnings using natural language processing to analyze sentiment to monitor attitude and behavior trends in an area of operation.

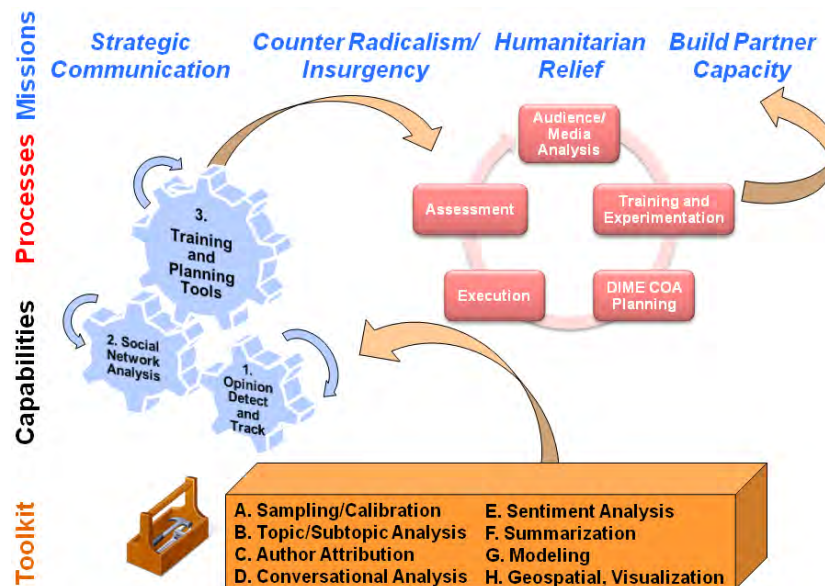




**Forum and Blog Threaded Comment Analysis (FABTAC):** Analysis of forum comment threads to provide interactive visualizations and thread summaries for intelligence and operations.

**Assessing Health Cognitions:** A classic health psychology approach to the assessment of citizens' emergency preparedness and readiness to counter pandemic influenza.

**Smart Systems:** As Figure 1 illustrates, these tools and technologies enable a number of capabilities such as opinion detection and tracking, social network analysis, and tools for training and planning. These capabilities can be integrated into systems that enable various smart power processes such as audience and media analysis, training and experimentation, Diplomatic Information Military Economic (DIME) course of action planning and execution, and assessment of effects of smart power engagements. Finally, our strategy includes exploring how innovative technologies, systems, and processes enable a broad range of missions, from strategic communication, to countering violent extremism, to humanitarian relief, to building partner capacity.



**Figure 1. Smart Systems for Smart Power**

**Corporate Initiative in Smart Power:** MITRE serves as a trusted provider of systems engineering services to help national security sponsors implement end-to-end Smart Power solutions in support of training, intelligence, and operations, and effects assessment. The MITRE Smart Power initiative aims to fill gaps identified by the DSB both in their Strategic Communication (2008) study as well in their study on Human Dynamics (2009). For example, human dynamics are shaped by economics, religion, politics, and cultural factors. Understanding these requires advances in human language technology, socio cultural dynamic network analysis, and high fidelity, multiscale computational modeling. To facilitate transition of emerging solutions and to enable whole of government integration efforts, MITRE will leverage our roles supporting a broad range of government organizations.