

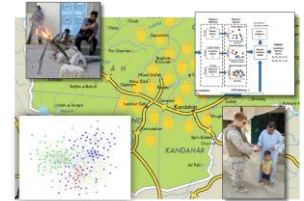
Human, Social, Culture, & Behavior (HSCB) Modeling

PROGRAM DESCRIPTION

In support of non-traditional warfare operations, the HSCB Modeling program was created to develop, implement, and demonstrate forecasting and predictive models of human behavior for both analytic application and warfighter training. In accordance with its mission to foster, plan, facilitate, and transition scientific research, ONR manages research and development efforts in support of the HSCB program.

Specifically, the ONR HSCB effort is intended to:

1. understand human, social, cultural and behavioral influences,
2. understand and predict adversarial behavior (using HSCB models),
3. improve modeling and simulation capabilities to develop reliable planning tools, and
4. develop planning and training tools that apply HSCB knowledge and models.



CHALLENGE

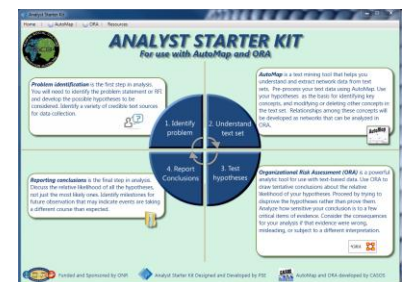
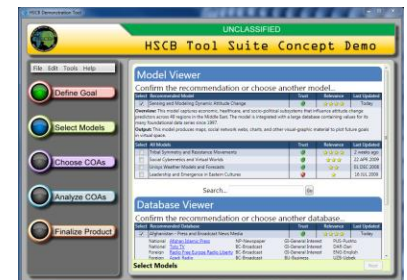
Sometimes, there is so much focus on the technology and on the many technical challenges associated with its development that programmers lose sight of critically important *human* factors. This leads to difficulties or even complete failure when the technology makes its way to users. A serious challenge to the overall success of HSCB efforts is the failure to properly incorporate human factors into designs.

APPROACH

PSE provided a broad spectrum of human factors support to ONR technology developers currently researching and developing models or technologies for the HSCB program. Some of the activities involved in-depth knowledge engineering and task analyses to understand user requirements and the environments for which the HSCB products are intended.

SOLUTIONS

- **HSCB Conceptual Demonstration** – an application allowing users to see how various HSCB data sets might be accessed and analyzed within a single, user-friendly interface with 5- and 12-minute voiced walk-throughs.
- **Analyst Starter Kit** – an automated quick reference guide that supports the use of two HSCB-relevant analytic tools created by the Computational Analysis of Social and Organizational Systems (CASOS) team at Carnegie Mellon University.
- **Business Process and Technology Review** – performed at a Marine Corps Information Operations Center with the goal of identifying and documenting processes and products in order to correlate them with the tools and methods being researched by the HSCB community.
- **Virtual Team Behaviors and Military Reachback** – a paper outlining the similarities and differences between academic theories on virtual team behaviors and a real-world case study on military reachback operations.



BENEFITS

PSE successfully implemented approaches that help potential users of HSCB technologies better understand the capabilities offered. In addition, PSE has enabled developers to better understand the subtleties of their targeted user groups in order to build HSCB technologies that maximize system throughput, capabilities and operational utility.

This program is sponsored the Office of the Deputy Undersecretary of Defense (OSD) for Science & Technology and the Office of Naval Research (ONR). Several government organizations manage research and development efforts for OSD in support of the HSCB program, including ONR.

