12th ICCRTS

"Adapting C2 to the 21st Century"

Abstract Submission

Title: ELICIT - The Experimental Laboratory for Investigating Information-sharing Collaboration and Trust

Topics:

- Organizational Issues (Edge organization vs. C2)

- Network-Centric Experimentation and Applications (New software platform for running experiments)

- Cognitive and Social Issues (Information sharing)

Authors: Mary Ruddy, under the direction of Dave Alberts, OASD (NII)

Point of Contact: Mary Ruddy

Name of Organization: Parity Communications, Inc. under contract to the Command and Control Research Center , OASD (NII)

Complete Address: 22 Bartlett Ave, Arlington, MA 02476

Telephone: 617-290-8591

E-mail Address: Mary@parityinc.net

Abstract

ELICIT is the Experimental Laboratory for Investigating Information-sharing Collaboration and Trust. A project of the Command and Control Research Center (CCRP) within the Office of the Assistant Secretary of Defense (NII), The ELICIT project has developed an online multi-user software platform for conducting experiments in information-sharing and trust. The software allows the CCRP to precisely model specific Command and Control processes, as well as edge organization processes and to fully instrument all interactions. The project objective is to conduct a series of online experiments to compare the relative efficiency and effectiveness of traditional *command and control (C2)* vs. self-organizing, peer-based *edge (E)* organizational forms in performing tasks that require decision making and collaboration. The experiment task is to identify the who, what, where and when of an adversary attack based on information factoids that become known to a team. The independent variable is whether a team is organized using traditional Command and Control vs. Edge organization principles.

Preliminary results, based on live subject runs, indicate that groups organized using Edge principles scored higher in task performance and in information sharing.

Unclassified

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Paper Outline

ELICIT Overview

    Background

    Approach

    Experiment Software

    Experiment Protocol

    Testing Hypothesis

Experimental Design

    Purpose

    Approach

    Summary of Experiment Model

    Details of Experiment Design

    Experiment Variables and Metrics

    Experiment Procedures

    Experiment Software

Data Collection and Analysis

Results and Conclusions

Suggestions for Future Work

Resources

Appendixes

Notes: The CCRP is making all ELICIT materials, raw data (including preliminary test, partial data sets) and results available on a public website at http://www.dodccrp.org/html3/elicit.html. To date, ELICIT experiment trials have been run with live subjects at a DC based research facility and at Boston University. The ELICIT platform is also being made available to several NATO research organizations. Additional experiment runs and analyses are scheduled to be preformed before the ICCRTS final paper deadline.