

Program

MONDAY, AUGUST 27, 2007

8:00 am – 9:00 am

Registration and Continental breakfast

9:00 am – 9:10 am

Welcome and Introduction

9:10 am – 10:10 am

Invited Talk: Integration of Social Sciences in Modeling

Lucy Resnyansky (Defence Science and Technology Organisation [DSTO], Australia)

Lucy Resnyansky is a research scientist at the Defence Science and Technology Organisation, Australia. She has a bachelor (honours) degree in linguistics (1985) and a PhD in social philosophy (1994) from Novosibirsk State University (Russia); and a PhD in education (2005) from the University of South Australia. Her research experience covers studies of language as an instrument of power and influencing public opinion; computer-mediated communication; and discourse analysis of multimodal texts. Current research interests are in the areas of social modeling, epistemological aspects of multidisciplinary research, cross-cultural communication, sociocultural implications of technology, and use of ICT-mediated information sources. These issues are approached from the perspective of sociology of science, philosophy of technology, activity theory, semiotics and discourse theory.

10:10 am – 10:30 am

Break

10:30 am – 12:00 pm

Computational Modeling, Part I

A Computational Approach to Etiquette and Politeness: Validation Experiments

Chris Miller, Peggy Wu, and Harry Funk (Smart Information Flow Technologies)

SOMA Models of the Behaviors of Stakeholders in the Afghan Drug Economy:

A Preliminary Report

*Amy Sliva, Gerardo Simari, Maria Vanina Martinez and V. S. Subrahmanian
(UMIACS, University of Maryland)*

Identity in Agent-Based Models: Issues and Applications

*Jonathan Ozik, David Sallach and Charles Macal (Argonne National Laboratory
and The University of Chicago)*

12:00 – 1:30 pm

Lunch

1:30 pm – 2:30 pm

Invited Talk: Modeling the Behavior of Terror Groups in the CARA Adversarial Reasoning Architecture

V. S. Subrahmanian (Institute for Advanced Computer Studies [UMIACS], University of Maryland)

V. S. Subrahmanian received his PhD in computer science from Syracuse University in 1989. Since then, he has been on the faculty of the Computer Science Department at the University of Maryland, College Park, where he holds the rank of professor. He is the director of the University of Maryland's Institute for Advanced Computer Studies (UMIACS) established by the state of Maryland in the mid-1980s to pursue interdisciplinary research involving IT. He received the NSF Young Investigator Award in 1993 and the Distinguished Young Scientist Award from the Maryland Academy of Science, Maryland Science Center in 1997. Subrahmanian is recognized for his work on heterogeneous databases, probabilistic reasoning, and reasoning in the presence of space, time, uncertainty, and objective functions. He has developed the first algorithms to optimize objective functions in the presence of logical rules, uncertainty, and time. He was one of the first to recognize the importance of modeling decision making entities in culturally diverse environments. He has edited two books and coauthored three.

2:30 pm – 3:00 pm

Break

3:00 pm – 4:00 pm

Application Areas

Computational Analysis in US Foreign and Defense Policy

Claudio Cioffi-Revilla (Center for Social Complexity, George Mason University) and Sean O'Brien (DARPA)

Network Analysis of Public Sector Coordination and Collaboration:
Conceptual and Methodological Applications

David Dornisch (U.S. Government Accountability Office)

4:00 pm – 4:30 pm

Break

4:30 pm – 5:30 pm

Computational Tools

T-REX: A System for Automated Cultural Information Extraction

Massimiliano Albanese and V.S. Subrahmanian (Institute for Advanced Computer Studies, University of Maryland)

GPNeg: General Purpose Negotiation Training Tool

Raz Lin and Sarit Kraus (Computer Science Department, Bar-Ilan University) and Jonathan Wilkenfeld (Director, Center for International Development and Conflict Management [CIDCM], University of Maryland)

TUESDAY, AUGUST 28, 2007

8:00 am – 9:00 am

Registration and Continental Breakfast

9:00 am – 10:00 am

Invited Talk: TBA

10:00 am – 10:30 am

Break

10:30 am – 11:30 am

Computational Modeling, Part 2

Dynamic Programming with Stochastic Opponent Models in Social Games

Tsz-Chiu Au (Department of Computer Science, University of Maryland)

Coercive Utopianism: Endogenous Models of Cultural Dynamics

David Sallach, Charles Macal and Jonathan Ozik (Joint Threat Anticipation Center, Argonne National Laboratory and The University of Chicago)

11:30 am – 1:00 pm

Lunch

1:00 pm – 2:00 pm

Simulations

Symbolic Noise Detection in the Noisy Iterated Chicken Game and the Noisy Iterated Battle of the Sexes

Tsz-Chiu Au (Computer Science, University of Maryland), Sarit Kraus (Computer Science, Bar-Ilan University), and Dana Nau (Director, Laboratory for Computational Cultural Dynamics (LCCD), University of Maryland)

Towards A Knowledge-Rich Agent-based Social Simulation

Afzal Upal and Rik Warren (Air Force Research Laboratory [AFRL])

2:00 pm – 2:30 pm

Break

2:30 pm – 3:30 pm

LCCD Demos

3:30 pm – 3:45 pm

Break

3:45 pm – 5:00 pm

Invited Panel: Computational Cultural Dynamics: What Should It Be?

Dana Nau (moderator) (University of Maryland), Sean O'Brien (DARPA), Shahm Mahmood Miakhel (Former Deputy Minister of the Interior in Afghanistan), Barry Silverman (Systems Engineering, University of Pennsylvania)