



**Explorations in Cyber
International Relations**
Massachusetts Institute of Technology Harvard University

Cyber International Relations: Emergent Realities of Conflict and Cooperation

EXPLORATIONS IN CYBER INTERNATIONAL RELATIONS

Stata Center and MIT Faculty Club

October 13-14, 2010

In international relations, the traditional approaches to theory, research, practice and policy were derived from experiences in the 18th and 19th centuries, refined further in the 20th century. But cyberspace has created new conditions—problems and opportunities—*for which there are no clear precedents*. As an environment for communication, a venue for social interaction and an enabler of new mechanisms for power and leverage, cyberspace calls for new perspectives, policies and practices. An event of the MIT-Harvard multidisciplinary Minerva Project on "Explorations in Cyber International Relations (ECIR)," this conference seeks to adjust traditional views to the cyber realities of the 21st century.

Our vision is to create new understandings of these realities that help:

- Highlight alternative perspectives and policies as well as institutional requirements;
- Clarify threats and opportunities in cyberspace for national security, welfare, and influence;
- Provide analytical tools for understanding and managing transformation and change; and
- Attract and educate a new generation of researchers, scholars, and analysts.

We hope to develop an integrated approach to international relations and help frame cyber theory and practice for the 21st century. Most important of all, we seek to provide foundations for an integrated view of international relations.

WORKSHOP AGENDA

Wednesday, October 13

6:00-9:00 p.m.

WELCOME RECEPTION

*R&D Cafe, Stata Center Building 32, 4th floor
32 Vassar Street*

(map <http://whereis.mit.edu/?selection=E52&Buildings=go>)

Thursday, October 14

9:00 – 9:10

REGISTRATION & COFFEE

*MIT Faculty Club
50 Memorial Drive
Bldg. E52 — 6th Floor*

(map <http://whereis.mit.edu/?selection=E52&Buildings=go>)

INTRODUCTION

Overview of Minerva Project on *Explorations in Cyber International Relations*, a collaboration of MIT and Harvard University

Nazli Choucri, Professor of Political Science; Director, GSSD Global Knowledge e-Networking; Associate Director, Technology & Development Program MIT. Principal Investigator, Minerva-ECIR

9:10- 10:45

PERSPECTIVES ON CYBERSPACE AND CYBERPOLITICS

CHAired by Venkatesh "Venky" Narayanamurti, Benjamin Peirce Professor of Technology and Public Policy; Professor of Physics; Director, Science, Technology, and Public Policy Program, Harvard University. Principal Investigator, Harvard, Minerva-ECIR

Cyber Power in International Relations

Joseph S. Nye, Jr., Dean *Emeritus* of the Kennedy School, Sultan of Oman Professor of International Relations

Cyber-Contention

David D. Clark, Senior Research Scientist, MIT Computer Science and Artificial Intelligence Laboratory

Challenges and Opportunities of Data and Evidence

Stuart Madnick, John Norris Maguire Professor of Information Technologies, MIT Sloan School of Management and Professor of Engineering Systems, MIT School of Engineering

Policy Impediments at the Federal Level

Joel Brenner, Counsel to the law firm Cooley LLP. ECIR Advisory Board Member

New Politics in International Relations?

Nazli Choucri, Professor of Political Science, MIT

10:45 -11:05

BREAK

11:05-12:35

CYBER CONFLICT: THEORY, DATA, AND POLICY
CHAired by **Joseph S. Nye, Jr.**, Harvard University

Back to the Future: The Moral Economies of Cyber Conflicts

Roger Hurwitz, Research Scientist, MIT Computer Science and Artificial Intelligence Laboratory

Digital Dependence

Melissa Hathaway, Hathaway Global Strategies, LLC

The Dynamics of US Cybersecurity Policy Priorities

Alan Friedman, Research Director, Center for Technology Innovation, Brookings Institution

12:35-2:00

LUNCHEON SESSION

Brief Remarks on Multi-disciplinary Research

Rickard R. Locke, Head, Department of Political Science Deputy Dean, MIT Sloan School of Management Class of 1922 Professor of Political Science and Management

PRESENTATION

Taking Machine Intelligence to the Next Level

Patrick Winston, Ford Professor of Artificial Intelligence and Computer Science, MIT

2:00-3:00

Concurrent Sessions

INTERACTIVE SESSION-SIMULATION MODELING FOR CORPORATE CYBER RESILIENCE

MODERATED by **Daniel Goldsmith**, Research Associate, and **Michael Siegel**, Principal Research Scientist, MIT Sloan School of Management

INTERACTIVE SESSION | INSIGHTS AND OTHER EVIDENCE FROM CASE STUDIES IN PUBLIC AND PRIVATE SECTORS

MODERATED by **David D. Clark**, MIT

3:00-3:20

BREAK

3:20 - 4:50

CYBER COOPERATION: THEORY, DATA, AND POLICY

CHAired by **Venkatesh "Venky" Narayanamurti**, Harvard University

Resilient Mechanism Design

Silvio Micali, Ford Professor of Computer Science and Engineering, MIT

Virtual State Revisited

Richard Rosecrance, Adjunct Professor in Public Policy; Senior Fellow in the Belfer Center for Science and International Affairs, Harvard University. Research Professor of Political Science, University of California

Dialectics of Cyber IR and Cyber Defense: Strategic Research
John Mallery, Research Scientist, MIT Computer Science and
Artificial Intelligence Laboratory

DISCUSSION

4:50 - 5:15

**OPEN DISCUSSION | RELATED WORK, FUTURE TRENDS, &
RESEARCH PRIORITIES**

5:15 - 5:30

CLOSING REMARKS | ECIR INTEGRATION STRATEGY
Nazli Choucri, MIT

5:30 - 7:00

COCKTAIL RECEPTION | INTERACTIVE STUDENT SESSION