INTERDISCIPLINARY
CONSORTIUM
for IMPROVING
CRITICAL
INFRASTRUCTURE
CYBERSECURITY
(IC)³

MIT Sloan MANAGEMENT

Newsletter #8: May-June 2016

(IC)³ Annual Conference on July 11-12, 2016

Agenda for the 2016 Annual Conference can be found at http://ic3.mit.edu/ic3docs/2016-07-11Agenda.pdf

(IC)³ Workshop on September 27-28, 2016

Note: This upcoming workshop is by invitation-only for our (IC)³ members and a few prospective members.

The URL for EventBrite registration has been sent to your organization. If you have not received it, please contact either smadnick@mit.edu or jcliment@mit.edu .

Agenda
Please check for updates to the agenda, which will be at:
http://ic3.mit.edu/ic3docs/2016-09-28Agenda.pdf

Tuesday, September 27, 2016
4:15pm-6:00pm Reception & Poster Session, joint with Cybersecurity@CSAIL
Location: R&D Commons- 4th floor of Stata Center
32 Vassar Street, Room 32-G401, Cambridge, MA
Map at http://whereis.mit.edu/?go=32
Note: MIT-(IC)³ Partner Members are invited to the Cybersecurity@CSAIL Annual conference, 1:00-4:15pm.

Wednesday, September 28, 2016
MIT-(IC)³ Fall Workshop
Location: MIT Sloan School of Management
100 Main Street, Room E62-450, Cambridge, MA 02142
Map at http://whereis.mit.edu/?go=E62

Registration & Continental Breakfast
- Welcome and Introduction to MIT-(IC)3
- Member introductions and updates on major new developments (up to 4 minutes each)
- Lesson Learned from studying attacks and hazards in Industrial Control Systems (ICS) (Matt Angle)
- Cybersafety analysis of the Target cyber-attack (Stuart Madnick)
- Analysis of cybersecurity related information; sharing methods and motivations in Black Hat and White Hat forums (Keman Huang and Zhen Fang)
- Lessons learned from studying Information Sharing Organizations and Efforts (Priscilla Cherie Koepke)
- **Panel:** "**Cybersecurity Information Sharing**" – Challenges? What works, and what doesn't?
  - Moderator: Stuart Madnick
    - Panelists: **ADP** (James Lugabihl), **BV Tech** Italy (Raffaele Boccardo or Sabino Caporusso), **ExxonMobil** (Rick McCauley), **IBM** (Caleb Barlow),

Mass Mutual (Matthew Brady), **Phillips** (Andrew Stanley), **State Street** (Michael Seachrist), **Verizon** (Gabriel Bassett).
- Updates on Executive Education research – analysis of data from Management Game (Michael Siegel & Mohammad Jalali)
- Discussion: Planning for future workshops and research agenda

Cambridge Cyber Summit @ MIT on October 5, 2016

Join CNBC, Aspen Institute and MIT's (IC)³, in conjunction with MIT's CSAIL, for a cybersecurity summit, which will bring together top leaders in business, government and academia to combat cyber threats and work towards a secure future. Details forthcoming in Newsletter #9.

Recent (IC)³ Conference & Workshop Appearances
International Collaborations
UK Academics on Cybersecurity Mission (May 13, 2016)

(IC)³ was asked to meet with a delegation of academics from the UK on a mission to study and meet with cybersecurity researchers in the US. The visitors came from the University of South Wales, University of Warwick, Queens University of Belfast, City University London, University of Lancaster, Southampton University, University of Surrey, Coventry University, University of Cambridge. Follow-up collaborations are being pursued.

Prof. Nazli Choucri speaks at event organized by the LUISS Business School in Italy (June 8, 2016)

Defense Minister Roberta Pinotti and MIT Professor Nazli Choucri, author of the bestseller "Cyberpolitics in international relations," were speakers at an event, held at the Hall of Columns of Viale Pola, organized by the LUISS Business School on the Italian policy of cyber defense. The next day, Prof. Choucri spoke before the Chamber of Deputies of the Italian Parliament.

In other news, Prof. Choucri was honored with the *Myron Weiner Distinguished Scholar Award* and a panel session on *The Co-Evolution Dilemma: Cyberspace and International Relations* by the International Studies Association (ISA) at their annual conference in Atlanta on March 18, 2016.

Prof. Madnick (top left) introducing (IC)³ to UK academics, Prof Choucri (right) presenting at LUISS Business School (Italy)

MIT CIO Symposium (May 18, 2016)

The 13th annual MIT Sloan CIO Symposia focused on how companies can manage their digital transformation. Their main web site is at: http://www.mitcio.com/

(IC)[3] was asked to organize a panel session on Cybersecurity Governance, addressing issues such as how to evaluate the security of their organizations, where does the CSO/CISO fit in the organization, increased interactions with the Board.

Prof. Madnick (left) moderates panel on Cybersecurity, with panelists (from left to right): Tom Eilers (Intel Security), Sam Phillips (Samsung Electronics), Roota Almeida (Delta Dental of NJ), Mark Morrison (State Street)

MIT Chief Data Officer – Information Quality (CDOIQ) Symposium (July 12-14, 2016)

In its tenth year, the MIT CDOIQ Symposium continues to explore the developing landscape, involving Chief Data Officers (CDOs), from local organizational issues to global challenges, through case studies from industry, academic, government and healthcare leaders. (IC)[3] was asked to present a special session on Cybersecurity.

Prof. Madnick (left) motivates and describes the role of the CDO in Improving an Organization's Cybersecurity.

(IC)[3] in the News

MIT Energy Initiative Awards Nine Seed Fund Grants for Early-Stage Energy Research

Power Electronics magazine (May 10, 2016) notes that the "MIT Energy Initiative (MITEI) has made nine awards totaling $1.3 million under its annual Seed Fund Program. …

One of the awarded Seed Fund projects, to be conducted by Stuart Madnick, will test a new method of cybersecurity risk reduction for energy systems based on applying concepts from industrial safety and systems thinking, called the Cybersafety Analysis Approach. The need for such a method is motivated by the intensified security risks presented by today's increasingly complex and dynamic energy systems.

Madnick plans to initially experiment with this method in action using the MIT Cogeneration Plant as a test case. Funding for the new grants comes chiefly from MITEI's Founding and Sustaining Members, supplemented by gifts from generous donors.

IBM Looks to Watson to Fight Online Criminals and Filter the Flood Of Security Data

This *Fast Company* article (May 22, 2016) describes how IBM is training its Watson artificial intelligence platform—previously known for using its natural language processing power to beat humans on Jeopardy—to parse cybersecurity information, from automated network-level threat reports to blog posts from security professionals. Tasked with some of that document labeling will be students from eight universities, including the Massachusetts Institute of Technology, New York University, and the University of Maryland, Baltimore County.

Prof. Madnick is quoted as saying: "The collaborations will hopefully not only give students an excuse to closely read security papers but also grant them some experience with how Watson-style cognitive systems work. … And, if the project works, it will offer those in the security field a leg up against online criminals."

IoT at MIT CIO, Part 1: How IoT Enables Digital Transformation

This article, and the following one, in *Telco Transformation* (May 31, 2016) describe some of the events at the MIT CIO Symposium, especially the IoT-focused symposium panel titled "Mitigating Cyber Risks in the Growing World of Internet-connected Devices," moderated by Prof. Stuart Madnick, who commented on how many IoT devices expect by 2020. "Either way," said Madnick, "that number is huge."

IoT at MIT CIO Symposium, Part 2: IoT's Unholy Trinity

In this article, from June 1, 2016, coverage of the panel session continued. One of the panelists noted: "The power system of the university got hacked; while everybody was paying attention to the students; nobody was watching the infrastructure." Panel moderator, Prof. Stuart Madnick presaged that IoT hacks like these are only the beginning. "Imagine the police coming, knocking down your door and arresting your refrigerator for sending out Spam," Madnick told the panel audience. "It's just a matter of time."

About Cybersecurity at MIT:

The MIT Interdisciplinary Consortium for Improving Critical Infrastructure Cybersecurity, (IC)[3], is one of three cybersecurity programs at MIT. It is focused on the managerial, organizational, and strategic aspects of cybersecurity. The other two programs are the Internet Policy Research Initiative (IPRI), focused on policy, and Cybersecurity@CSAIL, focused on improved hardware and software. More information on (IC)[3] can be found at http://ic3.mit.edu or by contacting smadnick@mit.edu