

# CYBERSECURITY

## CAMS Member Workshops

### FEBRUARY 1

New Research Discussion:  
Empowering Boards for Effective  
Cybersecurity Risk Management -  
Virtual Meeting

### MAY 14-15

CAMS Cybersecurity Innovation  
Symposium: In-Person

### AUGUST 8

New Research Discussion:  
Virtual Meeting

### OCTOBER 23

In-Person Member Workshop

**JOIN CAMS TODAY TO  
PARTICIPATE IN OUR 2024  
LINEUP!**

## Looking for Executive Education in Cybersecurity?

The CAMS team, in partnership with MIT Sloan Exec Ed, offers four cybersecurity management programs for business and non-technical executives.

**IDEAS  
MADE TO  
MATTER**

## UNVEILING GENERATIVE AI: NAVIGATING CYBERSECURITY FRONTIERS

In October of 2023, the CAMS community held its second in-person workshop, facilitating valuable discussions and collaborations through table talks, expert panels, and networking opportunities. Sloan School Professor Tom Malone delivered the morning keynote address, which focused on Cybersecurity and Generative AI, and the CAMS research team gave presentations on topics ranging from managing gaps in strategic control, new cybersecurity regulations, SMEs, and the cybersecurity supply chain, and a panel centered on the implications of GenAI. This compelling workshop gave members access to cutting-edge cybersecurity research across the CAMS community.



ICIS Panel from left to right: Jan vom Brocke, Stuart Madnick, Iris Junglas, Hemant Jain, Raju Goteti

## REVISITING DIGITAL INNOVATION ECOSYSTEMS - FINDING WAYS FOR ACADEMIA-INDUSTRY RESEARCH AND COLLABORATION TO SUCCEED

At this year's ICIS '23 event (the premier conference for Information System researchers) in Hyderabad, India, Professor Stuart Madnick participated in a panel of academics and practitioners addressing the importance of establishing new and effective pathways for collaboration between academia and industry research. Based on experiences from CAMS, Prof Madnick identified 6 factors leading to successful collaborations, such as real problems, good solutions, data sources, test beds, additional resources, and translation for practitioners. These ideas were so well received that he was invited to write a paper on the subject for publication in the *MISQE* journal.

## About Cybersecurity at MIT Sloan (CAMS)

MIT is a natural place to study cybersecurity, given its rich history of technology innovation, and the MIT Sloan School of management is the home of the Cybersecurity at MIT Sloan (CAMS) research consortium. The Consortium is focused on the managerial, organizational, and strategic aspects of cybersecurity. More information can be found at <https://cams.mit.edu> or by contacting us:



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*Dr. Pearlson lead the session on critical infrastructure cybersecurity at the WEF Cybersecurity Summit*

## CRITICAL INFRASTRUCTURE RISKS AND STRATEGIES EXPLORED AT WEF SUMMIT

Dr. Keri Pearlson moderated a session at the World Economic Forum's Annual Meeting on Cybersecurity in Geneva, Switzerland, titled "Critical Infrastructure: From Ransom to Destruction." The session explored 3 themes: critical infrastructure's need for cyber resilience given it's paramount importance in society, geopolitical tensions and their fallout's significant threat to critical infrastructure requires strong public-private partnerships to secure the ecosystem, and unintended consequences create collateral damage that must be part of the preparations when securing critical infrastructure. While this session covered a very large territory, some of the key takeaways included the need for a new collaborative and adaptable approach to better address the interconnected and interdependent nature of all critical sectors, a very useful case study of Rockwell as a model of public/private sector information sharing, and the call for expanding cyber strategies to include evaluation of intended

## DECEMBER DISCUSSIONS: EXPLORING GENERATIVE AI RISKS

In early December, the Special Interest Groups for Life Sciences and Human Risk Management met to discuss the implications and risks associated with Generative AI in their respective businesses. During the meeting, nearly 80% of HRM members reported having a GenAI policy in place, and discussions centered on security champions. Some actionable insights included setting annual objectives and creating a feedback loop. The most significant human risk identified was the tendency to treat these tools as "absolutely correct." On the Life Sciences side, companies discussed potential solutions for risks posed by GenAI, such as establishing or adjusting steering committees to provide guidelines and boundaries. It was emphasized that companies are still responsible for ensuring the authenticity of GenAI tools, including their implementation and associated risks.



### Cybersecurity Executive Education Programs Developed by CAMS

The CAMS team has created several executive education programs. Some are prerecorded online and others are 'live online' with instructors teaching in real time over a Zoom link. Here are links and the date of the next class (CAMS members get a discount on registration):

**MIT xPro Professional Certificate in Cybersecurity**  
(24 weeks) January 23, 2024

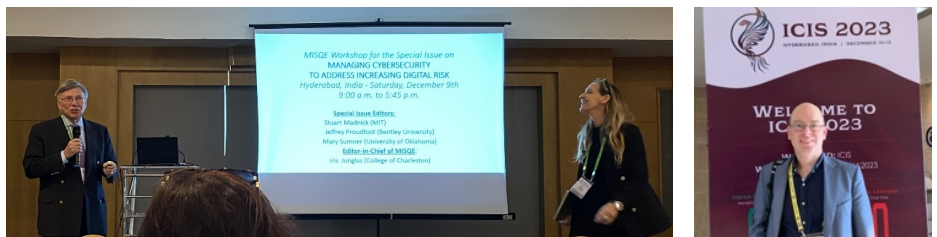
**Cybersecurity for Managers: A Playbook**  
(Six weeks) February 7, 2024

**Cybersecurity Governance for the Board of Directors**  
March 19-11, 2024

**Cybersecurity Leadership for Non-Technical Executives 2024**  
April 3-5, 2024

## GAME ON! HOW TO CREATE CYBER STRATEGY INVESTMENTS

Cybersecurity risk management is a crucial aspect of the work at CAMS. During a recent presentation, Dr. Sander Zeijlemaker had his attendees play a game to learn how to allocate resources securely for cyber risk management. Zeijlemaker emphasized that determining the optimal investment level is almost impossible since adversaries tend to behave randomly. Dr Michael Siegel and Dr Zeijlemaker's gaming research results are mimicked by the results seen through the members gaming exercise. These research results include risk optimization is difficult - doing well is good enough, time delays in the system are an essential consideration, identical total spend on cyber risk management can map to very different risk profiles, and spending wisely creates more flexibility around ransomware recovery.



*Prof Madnick (left), Prof Junglas, Senior editor of MISQE, (right) Dr. Zeijlemaker*

## WORKSHOP ON MANAGING CYBERSECURITY TO ADDRESS INCREASING DIGITAL RISK

Alongside CAMS Research Affiliate Prof. Jeff Proudfoot, and Prof. Mary Sumner, Prof. Madnick led a workshop on managing cybersecurity to address the growing digital risks. Of the 53 abstracts submitted, 16 were invited to present their ideas. The selected presenters included research teams from CAMS, such as Kwong, Neto, Pal, Pearson, Siegel, and Zeijlemaker. This workshop was intended to identify and helps mentor authors for a Special Issue on Cybersecurity for the *MIS Quarterly Executive* journal to be published in December 2024.

## MEDIA BUZZ OVER APPLE-COMMISSIONED STUDY, EXPOSING THREATS TO PERSONAL DATA

A new report, sponsored by Apple and authored by Professor Stuart Madnick, has revealed that data breaches of personal information have continued to increase from 2022 to 2023. These violations have reached epidemic proportions in the last two years, resulting in a staggering 2.6 billion personal records being breached. Moreover, ransomware attacks have become increasingly sophisticated and aggressive, reaching unprecedented levels. The report highlights the urgent need for end-to-end encryption to safeguard against such breaches. These findings were widely reported in the media.



## READ ALL ABOUT IT! CAMS IN THE NEWS + PUBLICATIONS

### December 15, 2023

Jeff Proudfoot, Alec Cram, Stuart Madnick and Michael Coden published an article in the MIS Quarterly Executive (MISQE): “[The Importance of Board Member Actions for Cybersecurity Governance and Risk Management](#)”

### December 7, 2023

Stuart Madnick published a report sponsored by Apple: “[The Continued Threat to Personal Data: Key Factors Behind the 2023 Increase](#)”

### November 3, 2023

Keri Pearlson and Nelson Neto published an article in the World Economic Forum’s Agenda: “[An Interview with ChatGPT about Managing the Risks of Generative AI](#)”

### October 23, 2023

CAMS Research Staff, Madnick, Marotta, Pal, and Zeijlemaker contributed to the World Economic Forum report: “[Response to the White House’s Request on Harmonizing Cybersecurity Regulations](#)”

### October 6, 2023

Ranjan Pal, Michael Siegel, Cynthia Zhang, and Bodhibrata Nag published an article in Forbes India: “[Why AI in Cybersecurity needs to be part of business strategy to boost resilience](#)”

### October 4, 2023

Keri Pearlson published an article in the Harvard Business Review: “[A Tool to Help Boards Measure Cyber Resilience](#)”

### October 4, 2023

Sander Zeijlemaker & Michael Siegel published an article featured at the One Conference, The Hague, The Netherlands: “[Six governance principles for cyber resilience: What the Board Needs to Know about Cyber Risk](#)”

This is a prolific time for CAMS, with many articles and publications available on the [Members Only](#) page of our website.