C3E Workshop

Welcome to C3E. This is an analytic workshop as much as it is a cyber security workshop. Though the problems in cyber security are many and various, and the types of expertise required to address them are equally various, we are concerned with a very specific part of the problem space: how do we enable smart real-time decision making in cyberspace. Several assumptions influence our approach to addressing this problem. Cyberspace is fast moving, so decisions need be instantaneous. Cyberspace is complex, so cyber analytics will work with very large data sets. Cyberspace is constantly changing, and our understanding of that space must be continuously updated. Finally, there is the assumption that gives our workshop its name: cyberspace is compromised, so our analysis must be undertaken in full recognition of that adversarial dimension. All this points to a need for novel approaches to human machine collaboration to support real-time decision making in cyberspace. That is the objective of this workshop. We look forward to your contribution.

    Pat Muoio

Agenda

Monday, 16 August

5:00 – 7:00pm	Welcome—Co-Chairs and Sponsors
	Informal gatherings for meetings and Introductions

Tuesday, 17 August

7:30 – 8:30am	Continental Breakfast
8:30 – 8:45am	Introduction and Welcome (O'Connell, Gibson)
8:45 – 9:00am	Opening Remarks and Workshop Objectives (Pat Muoio)
9:00 – 9:15am	Detailed Review of Agenda (Ed Gibson)
9:15 – 10:30am	Morning Speaker: Kevin O'Connell
	The Rise of Analysis and the Need for New Analytic Models
10:30—11:00am	Break
11:00—12:00	Lightning round introductions – 2 minutes each
12:00—1:30pm	Lunch
12:30—1:30pm	Lunch Speaker: Jesse Goldhammer:
	Assessing the Human Dimensions of Cyberspace – Modeling Cyber Culture and Attack Adaptation
1:30—2:30pm	Second Lightning Round introductions – 2 minutes each
2:30—5:00pm	First Working Session (including afternoon break)
	In-Track Discussions: for each of the three tracks (models, data, practitioner), leads will lead an "in-kind" session to review leading-edge ideas and developments that inform the workshop goals and objectives.

	Models: Pamela Arya & Kevin O'Connell (Support)
	Data: Ted Senator & Alex Szalay
	Practitioner: Dan Wolf & Ed Gibson (Support)
5:00—5:30pm	Blaise Misztal, Bipartisan Policy Center
	Introduction to Cyber Shock Wave
5:30pm	Workshop adjourns – time for informal gathering

Wednesday, 18 August

7:30—8:30am	Continental Breakfast
8:30—9:30am	Morning Speaker: Dave Aucsmith
	Leading Edge Cyber Assessment
9:30 – 11:30am	**Brief Out of Track Group Findings**: each of the three groups will summarize and brief out their findings in concert with the workshop goals and objectives. This will identify the gaps between theoretical approaches, analytic challenges, and practical solutions that exist within the group. Output: summary and template
9:30-10:00am	Models Track: Pamela Arya & Kevin O'Connell (Support)
10:00- 10:30am	Break
10:30-11:00am	Data Track: Ted Senator & Alex Szalay
11:00-11:30am	Practitioner Track: Dan Wolf & Ed Gibson (Support)
	Summary Review
11:30- 12:00	Teasing Out the Areas of Difference and Convergence (O'Connell, Gibson)
12:00- 1:30pm	Lunch
12:45- 1:15pm	Lunch speaker: Robert Rodriquez
	Peering Into the Cyber Future from a Market Innovation Perspective
1:30—2:00pm	Exercise Introduction: Analysis Beyond Cyber Shockwave (O'Connell, Gibson)
	With the starting point of the Cyber Shockwave Phenomena, participants mix and split into three groups to work through questions designed to drive out new ways to improve analysis of emerging cyberspace threats.
2:00—5:00pm	Exercise
5:00pm	Exercise Concludes

6:30—8:00pm	Dinner
7:15—8:00pm	Dinner Speaker: Lord Erroll
	Understanding Developments in Cyberspace: the View from Abroad
8:00pm	Workshop concludes for the day – time for informal gathering

Thursday, 19 August

7:30—8:30am	Continental breakfast
8:30—9:30	Morning Speaker: Steve Lukasik
	Ideas On CyberSecurity
9:30 - 10:30	Brief out of exercise findings: the three exercise groups brief out their responses to the exercise questions. Output: Summary and template briefing.
9:30- 9:50	Group 1 Ted Senator & Ed Gibson
9:50-10:10	Group 2 Alex Szalay & Kevin O'Connell
10:10—10:30	Group 3 Dan Wolf & Pamela Arya
10:30 – 10:45	**Quick Break**
	Looking to the Future: Alternative Futures
10:45—11:45	Speaker: Eric Haseltine
11:45—12:15	Synthesis: this session will summarize the workshop, including major themes, things covered, things not fully explored. Methods for continuing the conversation and the path to next year's workshop
12:15 – 12:30	Boyd Livingston, C3E Workshop Co-Sponsor
12:30—12:45pm	Concluding Remarks: Pat Muoio and Co-Chairs
1:30pm	Pick Up Box Lunch; Depart for UCSB
1:30—4:30pm	Field Trip to UCSB