Criminal Investigations and Network Analysis
A DHS CENTER OF EXCELLENCE

GEORGE MASON UNIVERSITY

Contents of this Month's Update

THOUGHTS FROM THE DIRECTOR

Jim Jones

Risking Lives for Important Data

Most of my professional career was spent doing incident response and digital forensics work. This work has a natural flow from data collection, to analysis, to outcomes and associated actions, and I spent most of my time in the analysis phase. I spent limited time doing field collection, and I was usually only told about outcomes after the fact. On Tuesday, February 2, 2021, two FBI agents were shot and killed trying to collect precisely the type of data that I and others in my line of work spend our days and nights analyzing. This sudden and tragic loss of life, and injury to others, reminded me that brave men and women are regularly risking their lives to collect the computers, phones, and other material that we then analyze from the relative safety of our offices and labs.

The CINA research portfolio is largely analytic. That is, given a bunch of data, how can we better tease out the connections, leads, and evidence to support the investigative and prosecutorial processes? Data is the fuel that drives our work, and it is the raw material from which investigations are conducted and cases are made. We are constantly asking for more data, processing the data we have, and figuring out how to work through some of the challenges around data collection and access. But our administrative challenges pale in comparison to the dangers faced by the men and women working on the front lines. After Tuesday, I will never look at a hard drive, cell phone, or usb stick the same way; I will wonder at what cost was this item collected? Our thoughts are with the families and colleagues of the fallen agents, and we are grateful to those who bravely face great risks and dangers to collect the data upon which investigations and justice depend.

Sex Trafficking Detection and Prosecution

About one quarter of sex trafficking victims are under 18, and only a small fraction of these cases are prosecuted. Detection and prosecution of these crimes depends largely on victims disclosing information to law enforcement, but they are often unwilling to do so. As the assistance of recalcitrant victims is so important in combatting human trafficking, CINA is funding a research team led by Dr. Jodi Quas, of UCI School of Social Ecology at the University of California Irvine, and Dr. Allison Redlich, Professor in the Department of Criminology, Law and Society at George Mason University to develop best practices and training materials for interviewing trafficking victims.

The team is collecting and analyzing court cases, assessing federal law enforcement needs, and collaborating with the Federal Law Enforcement Training Centers (FLETC) to survey subject matter experts in order to shed light on this understudied problem. To learn more about this work, watch Dr. Quas' recent talk in CINA's Distinguished Speaker Series.

CINA Welcomes 2020-21 Open RFP White Paper Submissions

CINA continues to welcome white paper submissions presenting research ideas intended to address questions and challenges that CINA, DHS, and/or its federal partners are currently facing, or are expected to be facing in the near future. This rolling RFP provides an opportunity for submissions to be accepted at any time during the RFP open period (June 2020 – June 2021).

Learn how to submit a proposal

GMU Researchers Help DHS Fight Cybercrime

In the latest Cybercast podcast episode, Jim Jones, CINA's Director talks indepth about how

researchers are working to intercept cybercriminals and educate a new generation of cybersecurity professionals.

Listen to the podcast

Mary Ellen O'Toole on looking into the eyes of a murderer

Dr. Mary Ellen O'Toole, George Mason Univeristy, College of Science professor and former FBI profiler talks on the latest episode of Mason's Access to Excellence podcast about what's it like to interview a mass murderer, her career, and the program's new Forensic Science Research and Training Laboratory, which will be one of only eight in the U.S. to use donor remains for forensic research.

Listen to the episode

Working with the DHS Science and Technology Directorate

Technology and threats evolve rapidly in today's ever-changing environment. The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) monitors those threats and rapidly capitalizes on technological advancements, developing solutions and bridging capability gaps at a pace that mirrors the speed of life. Watch the video below to learn more about the Directorate's mission.

WORKFORCE DEVELOPMENT

Now Coordinating Summer and Fall Internship Opportunities

CINA offers workforce development opportunities for the next generation of homeland security experts, facilitating internships and mentorships for students and recent graduates both within academic institutions and DHS industry partners.

Ready to offer a student internship experience? Contact Deanna Austin at dausti@gmu.edu to discuss requirements, timeframe, and areas of interest. Learn how to become part of the applicant matching process to connect your organization with CINA-sponsored students who can offer knowledge, skills, and abilities along with an eagerness to learn through these experiential opportunities.

Call for 2021 Student Grand Challenge Submissions

Student opportunities abound at the upcoming CINA-hosted 2021 DHS COE Summit this May. In addition to a poster competition and full schedule of presentations and networking at the DHS COE Capabilities Showcase, the Student Grand Challenge is back for its second year. This one-of-a-kind experiential learning opportunity brings interdisciplinary student teams together from across the country and challenges them to address a significant Homeland Security issue.

Watch the 2019 Student Grand Challenge presentations on Unmanned Aerial Devices to see the future of the HSE workforce.

DISTINGUISHED SPEAKER SERIES

COVID-19 Impact on the Economy, Security and Transnational Organized Crime

Register today for our upcoming Distinguished Speaker Series event taking place on Wednesday, February 17, 2021 from 12:00 p.m. -

1:30 p.m. EST, featuring Celina Realuyo, Professor of Practice, William J. Perry Center for Hemispheric Defense Studies, The National Defense University. Her presentation will focus on the impact of COVID-19 on the economy, security and transnational organized crime in the Americas.

CELINA REALUYO
William J. Perry Center, National Defense University

Register Now

Wednesday, March 17: Cryptocurrencies and Criminal Investigations

DIANA DOLLIVER
University of Alabama FBI Cyber

Tune in on Wednesday, March 17 from 12:00 p.m. - 1:30 p.m. EST for a discussion with Diana Dolliver, Associate Professor, Criminology and Criminal Justice, Academic Director, Joint Electronic Crimes Task Force, FBI Task Force Officer, FBI Cyber. Dr. Dolliver will discuss how cryptocurrencies can be obtained and stored, how transactions can be traced, and how these assets can be potentially seized by law enforcement officials through legal processes and the use of digital forensic evidence. Dr. Dolliver will also cover the methods criminals take to obfuscate transactions to hide their activities and avoid attribution, as well as discussing best practices for law enforcement agencies handling cryptocurrencies.

Learn More

Wednesday, April 14: Fighting Illicit Trade in the Forms of Trademark Counterfeiting and Copyright Piracy

JEFFREY HARDY
Transnational Alliance to Combat Illicit Trade

Join Jeffrey Hardy, Director-General, Transnational Alliance to Combat Illicit Trade on Wednesday, April 14 from 12:00 p.m. - 1:30 p.m. EST to listen to him discuss the fight on illicit trade.

From smuggling, counterfeiting and tax evasion, to the trafficking of humans and wildlife, illicit trade holds back progress, increases costs and pushes the goals further away.

While data on this clandestine activity has previously been scarce, there is mounting evidence of the economic, social and environmental losses it can cause.

Register Today

U.S. Department of Homeland Security

Centers of Excellence Summit 2021

Theme: **University research and workforce development for a safe and secure Homeland**

When: May 17–21, 2021
Where: Virtual Event

Watch the 2019 DHS COE Summit Video

Hosted by the DHS Centers of Excellence (COE), this event is a unique opportunity for COE researchers to connect and network with DHS components, federal, state, and local stakeholders, as well as industry partners to present current and emerging solutions to threats and challenges faced by DHS

Visit the COE Capabilities Showcase

COE and vendor partners share research breakthroughs
New products and tools to assist operational decision-makers
Dynamic solutions to secure our Homeland

Choose a combination of sessions

Hear keynotes & panels complemented by attendee selected sessions from two tracks:

Track 1: Protecting the Homeland from catastrophic risks
Track 2: University research public/private partnerships for enhanced Homeland security

Explore the Latest Student Research

Student research presentations responding to current & emerging DHS threats
DHS COE Student Grand Challenge
Network with the next generation of DHS professionals

If you have any questions, please contact cina@gmu.edu

Visit our website's digital archive to view research and upcoming events hosted by CINA.

You're invited to submit articles, photos, videos, and story ideas to include in upcoming newsletters. Submit your ideas on our website contact form.

Stay Connected

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