PROGRAM

Day 1
Monday, October 3, 2011

8h00
Arrival and Registration

08h30
Welcome

9h00 to 10h00
Keynote 1

Jean Marie McGloin
University of Maryland

Holly Nguyen
University of Maryland

The Importance of Studying Co-Offending Networks for Criminological Theory and Policy

Though the group nature of much crime and delinquency has been well documented for decades, there is relatively scant research on co-offending networks. This paper highlights the compelling and unfortunate nature of this void, arguing that it hampers the development and assessment of theory and policy, as well as stunts basic knowledge about criminal behavior and processes. More specifically, this paper argues that attending to the ways in which co-offending networks shape and affect criminal behavior, as well as how individual and situational attributes shape the tendency to join such networks and adopt certain roles within them, has broad and important implications for criminology and criminal justice. In making this argument, the paper highlights recent empirical examples (by the author) and lays out specific directions for additional research on this form of illicit criminal networks.

10h00
Coffee Break

10h20 to 10h40

Sarah B. van Mastrigt
(University of Aarhus, Denmark)

Peter J. Carrington
(University of Waterloo)

Sex and Age Homophily in Co-offending Networks: Opportunity or Preference?

Homophily, the tendency for individuals to associate with similar others, has been demonstrated across a wide range of social relational forms, including co-offending. In fact, one of the most widely cited 'facts' about group crime is that it is typically carried out in homogeneous pairings/groups. This finding is often taken as evidence that offenders exhibit a clear *preference* for accomplices who are similar to themselves with respect to age, gender, and other attributes. However, it is also possible that the homogeneity typically observed in co-offending ties simply reflects chance expectation given the demographic composition of the larger offending network; in other words: *opportunity.* In this paper, probability models are applied to distinguish between baseline homophily (the degree of clustering expected by chance alone) and inbreeding homophily (the degree of clustering above and beyond

what would be expected by chance) for 10,387 joint offences cleared by a large UK police force between 2002-2005. The findings provide evidence for inbreeding homophily and indicate that the preference for similar others is most pronounced amongst females and youths in co-offending networks. Implications of these findings for theory and policy are discussed.

10h40 to 11h00

CANCELLED

The Evolution of Co-Offending Networks

Natalia Iwanski
Simon Fraser University

Richard Frank
Simon Fraser University

This project analyzes the evolution of a longitudinal drug crime co-offending network to examine how co-offending groups form and change over time. Using five years worth of real crime data made available for research purposes, a social network is created with drug crime offenders who had contact with the police. Given information about each offender's home location, age and gender, as well as information about the time and place of each crime event, links are created between offenders if they are involved in the same crime event. To isolate networks of frequent co-offenders, a dense subcomponent of the graph will be extracted and analyzed over monthly time intervals to understand its growth or decay. At each monthly time step general statistics are gathered about the average degree of the subcomponent, its diameter, clustering coefficient, centrality, average distance and the presence of clusters and cliques. These statistics give insight into whether the network is increasing or decreasing in connectivity, how key figures change, whether hierarchal relations are present and whether certain offenders become isolates. Node attributes are also taken into account to see the influence of age, gender, or place of residence in the formation of co-offending relationships. In addition, the offenders' role, such as trafficker, importer or exporter, will be used to determine which factors facilitate the development of co-offending groups and the occurrence of drug crimes. Finally, the factors influencing the network evolution are discussed in terms of policy implications on combating drug networks.

11h00 to 11h20

Organized Crime Detection in Co-Offending Networks

Uwe Glässer
Simon Fraser University

Mohammad A. Tayebi
Simon Fraser University

Patricia L. Brantingham
Simon Fraser University

Existing definitions in the literature on organized crime concentrate on three essential perspectives for characterizing the nature of this form of crime: In the first view, organized crime is primarily about "crime". Organized crime is seen as a specific type of criminal activity that has some level of specific characteristics such as continuity in contrast to irregular criminal behavior. In the second view, organized crime is more related to the concentration of power, either in economic or in political structures of the society. And in the third view, the emphasis is on

"organized". That is, the important aspect of organized crime is on how offenders are connected to each other more than what they do. In this research, based on the third view, we formalize the meaning of organized crime and criminal organizations in a coherent and consistent mathematical framework to provide a precise semantic foundation consistent with criminological research, computing science social network analysis and law enforcement operations. We use this formal definition to analyze co-offending networks with data mining techniques, addressing whether data mining can help law enforcement agencies in detecting and extracting meaningful information about organized crime.

11h20 to 11h40

Assessing the Core Membership of a Youth Gang Using Two-Mode Social Network Analysis

Martin Bouchard
Simon Fraser University

Richard Konarski
Simon Fraser University

The dynamic and sometimes diffuse nature of membership make gang boundaries sometimes difficult to discern for law enforcement officials or researchers, and even for "members" themselves. The current study draws on social network analysis of co-offending data to assess its utility in identifying the '"core" membership of a youth gang active in a rural region of British Columbia, Canada. The '856 gang' became a significant concern to the police and local population after criminal actions attributed to the group included two attempted murders, and the very public attempted assassination at gunpoint of a father to one of the alleged "856" members. As the police were planning an intervention on the gang, a group of investigators set out to identify the "core" members of the gang through informal discussions and manual file reviews. This process led to the identification of 6 members who were arrested and charged in the summer 2007. For the purpose of this study, we used this set of 6 offenders and re-constructed their full co-offending network from arrest data occurring between January 2003 and July 2007 as a two-mode social network. The findings reveal that a total of 60 offenders were potential members of the 856 gang, as defined by an arrest with one of the core 6 members identified by the police. A core/periphery analysis of the co-offending data reveals that 10 out of 60 offenders could be defined as the 'core members', including only 3 of the 6 offenders initially identified by the police.

11h40
Discussion

12h00
Lunch - Restaurant Ridi
(Hotel Méridien)

13h20 to 14h20
Keynote 2

David Wall
Durham University

The Organization of Cybercrime in an Ever-Changing Cyberthreat Landscape

Since 2009 we have witnessed a step-change in the level of danger posed by cybercrimes to individual, organisational and national security. Malware such as Zeus, SpyEye, Stuxnet, and scareware (fake AV) each display new levels of threat as well as advanced sophistication and organisation in terms of their design, construction and delivery. In the case of the latter, the software not only deceives the victim through social engineering but it also passes the victim's money to the perpetrator - this is unlike Phishing which requires a money mule to extract a victim's money from their bank. On the topic of social engineering, we have also witnessed the 'power of the crowd' with regard to protest and whistle-blowing. It is a 'power' that is potentially open to criminal exploitation. In order to understand the above changes to the cyberthreat landscape we have to also understand the organisation of the threats and this is the purpose of my talk. Today, I shall explore the organization of cybercrime, which I interpret as those criminal behaviours that have been transformed by networked technologies. The first part will explore the ways that criminal behaviour has been transformed by new technology. The second part will draw upon a simple analysis of the structures of known/ apprehended 'cybercrime gangs' to look at the way that the 0rganisation of criminal behaviour has been transformed. The third part will compare the organisation of known cybercrime gangs with what is known about the way that the new threats are organised in order to draw out any similarities or differences. The final part of my talk will explore new enterprise and network methodological approaches to the subject as well as new techniques such as criminal network analysis in order to further understand the organisation of new forms of cybercrime.

14h20 to 14h40

Benoit Dupont
Université de Montréal

What Hackers Talk About When They Talk About Hacking

This presentation will examine the inner workings of a hackers' network based on data extracted from the computer hard drives of 10 offenders who were arrested by a Canadian law enforcement agency in early 2008. These hackers, who have since all been convicted, operated a large botnet that contained thousands of compromised computers located all over the world. By examining the hacking-oriented communication logs on these hackers' machines, it becomes possible to understand how their network was structured and how it operated. By combining traditional social network analysis measures with a qualitative analysis of the discussions' content, a nuanced picture emerges. Although network members were able to develop technical skills as a result

of their exchanges with more experienced hackers, their social and organizational competencies remained relatively low and limited their ability to benefit financially from their illegal activities. It also appears that the density of ties and the frequency of interactions, two classical indicators of a network's effectiveness, do not capture the deep mistrust that characterized exchanges among members: insults, accusations and attacks were endemic and mobilized a lot of resources that were not available for profit-oriented activities. This case study improves our understanding of the hacking ecosystem by identifying a group of offenders who have the technical skills to deploy malicious software on a large scale without the business skills that would make such exploits profitable. It also illuminates how such networks are particularly exposed to disruptive activities due to the limited supply of trust that sustains them.

14h40 to 15h00

Chit-Hack: Information Exchange Paths in IRC Hacking Chatrooms

David Décary-Hétu
Université de Montréal

Today's world is more than ever focused on information. This is particularly true in the computer security world where the success or the failure of an attack on a network will often depend on how intimately the attacker knows his target. In order to gain such knowledge, hackers will either read online tutorials and forums or will exchange tips and tricks with other members of the computer underground. This study focuses on the latter and aims to understand how hackers shape their personal network of connections in order to gather information on potential victims. Using logs of online Internet Chat Relay (IRC) chats, we present the ego networks of over 262 hackers who visited hacking chatrooms and talked about hacking with 356 other people. Our study shows that hackers interact with each other in what appears to be small and dense networks where direct connectivity is more important than indirect connections. The number of contacts in the ego networks is limited in most cases and the number of brokers is fairly poor. Alters and egos evolve in very dense ego networks where everyone knows everyone. We also find that IRC chatrooms should be excellent learning classrooms for any hacker who would like to hone his skills on a variety of subjects.

15h00 to 15h20

Usenet Groups, Child Pornography and the Role of Participants

Francis Fortin
Université de Montréal

The availability of Internet services has remarkably facilitated the production, reproduction, and dissemination of child pornography as well as the creation of communities or support networks to conceal underground activities. Following a discussion about the Newsgroup Internet service (USENET), this paper aims to analyze how it is used by cyberpedophiles to share child pornographic

material but also to share ideas and experiences about their illicit activities. The analysis of 45 days of text-based communications shows that community is build through messages of moral / technical support, conflicts and disputes, as well as the deployment of strategies to promote pedophile oriented content (with philosophical discourse and through ads to join other web rings). We also propose explanation on how each participant is playing different roles ranging from the "powerposter" who brings new content and gets the admiration of all participants to the "leecher" who is interested in getting all the content without actively participating. Some examples and issues on Internet-based communities are also presented.

15h25
Discussion

15h35
Coffee Break

15h50 to 16h10

Dan Cunningham
Naval Postgraduate School

Sean F. Everton
Naval Postgraduate School

Terrorist Network Adaptation to a Changing Environment

To date most social network (SNA) analyses of terrorist groups have tended to use network data that provide snap-shots of the groups at a single point in time. Seldom have they used network data that takes into account how the groups have changed over time. In this paper we draw on a unique longitudinal network data set of the Noordin Top terrorist network from 2001-2010 in order to explore how the network's topography (e.g., centralization, density, degree of fragmentation, size) and effectiveness (e.g., recruitment, time between attacks, number of members killed and/or captured, resiliency) changed over time in light of efforts by Indonesian authorities to disrupt it. Our analysis will allow us to draw tentative conclusions with regard to various theories about how terrorist networks adapt to a hostile environment and how such adaptations influence their effectiveness. For example, available evidence suggests that in a hostile environment, terrorist groups tend to adopt a more decentralized form of organization that not only provides greater security but also improves effectiveness (see e.g., Arquilla and Ronfeldt 2001, Raab and Milward 2003, 2006). Adaptation can create new vulnerabilities, however. Terrorist groups often become increasingly dense and turned inward on themselves as a result of their covert behavior and/or mounting pressure from the authorities, potentially making them vulnerable to rapid deterioration in the event of a well-connected member's capture (Koschade 2006; COIN FM 3-24 2006). The paper's conclusion will highlight the strategic

implications of our analysis as well as provide suggestions for future research.

16h10 to 16h30

Christian Leuprecht
Royal Military College of Canada

Todd Hataley
Queen's Centre for International and Defence Policy

Cross Border Terror Networks: Creating Markets of Opportunity

To what extent do Canadians convicted of offenses involving violent extremism depend on cross-border networks for support in the form of ideological and material resources? We can map these structures. For the purpose of intelligence-led policing and law-enforcement, however, the real question is why they exist and how they are sustained. From a policy perspective, the question is what levers can be pulled to stifle the growth of such networks and to dis-incent them from springing up in the first place. To that end, we need to develop a better understanding of the variables that define the nature and extent of those networks. On the one hand, economic theory posits transaction costs as at least a partial explanation for networks. On the other hand, social-movement theory posits a number of competing hypotheses regarding ideology and resources to explain the formation and sustainability of transnational crime networks. The challenge thus far has been the availability of systematic empirical evidence mapping cross-border extremist networks. This paper is part of a larger project that uses open-source material and court-disclosure packages to gather and code geospatial, temporal and over 80 other data points on Canada-US extremist networks. To the best of our knowledge, no one has ever attempted to map Canada-US cross-border militant networks, let alone methodically and comprehensively. The project's ultimate objective is to build the necessary capacity and provide the requisite data and analysis to facilitate more evidence-based policy-making on matters of national security.

16h30 to 16h50

Georgia Lysaght
University of Wollongong

The Implications of Transnational Organised Crime for Stability in Conflict-Affected Environments: Afghanistan and the Democratic Republic of Congo

Conflict-affected environments are prone to housing the 'dirty' end of illicit commodity markets that predominately constitute the labour-intensive cultivation/production and trafficking activities. The protraction of violent conflict where illicit markets proliferate is indeed advantageous to the criminal networks that profit from them. While the direct relationship between crime and conflict has been examined at length, a distinctly transnational approach with a concern for networks has yet to be developed. This paper will consider how network analysis can constitute a vital element of an integrated conceptual framework to better understand the TOC-conflict nexus. The network analysis element enables, among other things, a mapping of the linkages formed between TOC groups and other significant actors in conflict settings, as well as those further

afield. While these include ‘the usual suspects’ such as political powerbrokers and militia leaders, the network analysis will also consider actors that put pressure on the perpetuation of TOC from other parts of the supply chain *outside* the immediate conflict environment. Thus the paper will incorporate the consumption stage, comprised of purchasers from the developed ‘West’, into the analysis. It will case study how these transnational networks play a critical role in the function of TOC and contribute to the shape of the conflict landscape in Afghanistan and DRC specifically. This paper will demonstrate how network analysis can address the so-called ‘gaps’ in the research where other methods may fail.

16h50 to 17h10

Samuel Tanner
Université de Montréal

From Mobilization to Collective Action: The Role of Brokerage in the Participation of Rwandan Armed Groups in the 1994 Genocide

Participation in mass violence may be envisaged as a sequence of tipping points according to which individuals shift from a neutral position, namely an agnostic apprehension of an out-group, to a mobilized state of mind - its categorization as an enemy – and, finally, to collective action – its physical extermination. In this contribution, and grounded on evidence gathered from the 1994 Rwandan genocide, I focus on the transition from mobilization to collective action. More specifically, I reveal that brokerage, defined as the production of new connections and resources between sites or persons – until then weakly or not connected – is a crucial mechanism that generates material, symbolic and political resources turning perpetrators from loosely scattered individuals into efficient armed groups, and thus precipitating mass violence. Such metamorphosis is made possible by an interplay between four main sites I identify and analyze specifically in the paper, namely the Hutu central extremist government; its extremist militia (*interahamwe*); the Hutu local population; and local perpetrators turned into «grass root armed group». In the end, brokerage reveals how locally formed armed groups may be considered as a crystallization of a socio-politico equilibrium between the four main nodes here above identified. Thus, from a theoretically perspective, such approach might help develop a collective perspective on such mass violence, and then contribute to the expansion of criminological knowledge so far exclusively based on an individual crimes, or perspectives. Also, from a practical and policy point of view, grasping collective action – namely mass crimes – through the brokerage mechanism allows for new perspectives on its prevention, as I will show.

17h10 to 17h30

Islamist Terrorism Networks in Canada: Characteristics and Modus Operandi

This paper charts the evolution of 'home-grown' Islamist terrorism

Sam Mullins University of Wollongong	in Canada, from the 1980's until the present. Characteristics of offenders and network structures are described, and the changing nature of international links is examined. The results are compared to similar, empirical analyses of the US, UK and Canada in order to clarify shared and unique features. Implications for counter-terrorism are discussed.

Day 2: **Tuesday, October 4, 2011**	
8h30 to 9h30 *Keynote 3* Andrew Papachristos University of Massachusetts at Amherst Chris Smith University of Massachusetts at Amherst	*The Small World of Al Capone: The Embedded Nature of Criminal and Legitimate Social Networks* Chicago's Prohibition era syndicate represents one of the most studied criminal enterprises, and at its core is the mythical Al Capone—the organizational maestro of a massive criminal network that permeated the legitimate and political worlds. To date, most of this research has relied on historical and cultural analyses all of which have reinforced the structural and cultural importance of Al Capone and his associates. This paper re-examines the Capone era mob through a new analytical lens—social network analysis. Using a unique relational dataset created by coding more than 3,000 pages of primary documents, this paper examines the precise ways in which the criminal networks associated with Al Capone overlapped with political and union networks. These new data and the use of social network analysis mark this study as perhaps the first to (quite literally) map the small world of organized crime in Chicago and, in so doing, offer a structural analysis of the expansiveness of criminal, political, and union networks. The findings reveal a series of overlapping social networks of more than 1,200 individuals with more than 3,500 ties among and between them. The majority of these ties and individuals are in a single large network with only a hand full of individuals (less than 100) acting as links between the criminal, political, and union worlds. Findings compare the "structural signatures"—i.e., the various network permutations—of organized crime figures that have been deemed "important" from more traditional historical and cultural analyses with those deemed important from structural analysis. The implications of this research for our understanding of Al Capone as well as its relevance for the study of organized crime are also discussed.
9h30 to 9h50 Sheldon Zhang San Diego State University	*Snakeheads and the Cartwheel Network: Functional Fluidity as Opposed to Structural Flexibility* Research has shown that Chinese human smugglers (or snakeheads) are mostly enterprising individuals who use their social networks to provide underground travel service to facilitate

the migration of their compatriots to their destination countries. These circles of social contacts resemble a series of cartwheels connected through their central nodes—a process comprising multiple groups of entrepreneurs, each doing their part to move their clients forward. These snakeheads provide as well as broker resources required of a smuggling operation, and their transactions are mostly dyadic for safety reasons as well as profit protection. The chain-like smuggling process hinges heavily on the successful delivery of the required services at each and every stage, anyone of which can bring down the entire operation should it fail. While the enterprise of human smuggling as a whole exhibits much flexibility and resiliency towards market uncertainties and constraints, individual networks nonetheless are highly vulnerable to structural disturbances. From a law enforcement perspective, it is far more effective to target these brokers than any prolonged investigations aimed at capturing major smuggling kingpins.

9h50 to 10h10

Toine Spapens
Tilburg University

Control of the Criminal Macro Network?

Successive empirical studies of different types of serious crime in the Netherlands, such as illegal firearms trafficking, XTC production, cannabis cultivation and theft of commercial vehicles and loads, have revealed that many social and business relations exist between members of criminal groups involved in the same or in different illegal activities. I have therefore defined this network of individuals as a "criminal macro network" from which criminal groups emerge. Such groups may form for just one project and disband upon its completion, but may also continue for longer periods and evolve into relatively stable criminal organizations. In the past there has been much discussion about whether certain criminal groups, such as the Italian-American mafia, were able to completely control specific illegal activities. Diego Gambetta and Frederico Varese in particular have addressed the role of organized crime as a regulatory body in situations where law enforcement is weak. In this paper I would like to address the topic from a macro network perspective. Which are the mechanisms that can theoretically be applied to exert control over (parts of) social networks? Are there criminal groups in the Netherlands that succeed in controlling/regulating parts of the criminal macro network or of specific activities? Empirical research conducted over the past two years in the Amsterdam Red Light District suggests that some form of regulation of illegal activities does indeed take place, and that members of outlaw motorcycle gangs play an important role in this.

10h10
Coffee Break

10h30 to 10h50

Illegal Networks or Criminal Organizations: Power, Roles, and Facilitators in Four Cocaine Trafficking Structures

Andrea Giménez-Salinas Framis
Autonomous University of Madrid

The aim of the paper is to present findings from a research which targets the application of social network analysis (SNA) perspective to data coming from police investigations about criminal organizations. The findings will also help us to understand differences and similarities with investigative outcomes. For that purpose, we have collected information from police files of 4 investigations of criminal organizations by means of a questionnaire of 76 variables divided in four main areas: features of the organization, illicit market, instrumental activities undertaken and profile of members. Additionally, we have collected information about wiretappings and meetings registered by the criminal investigation with the intention to analyze the organization under SNA perspective. The four networks have been analyzed in three main levels: a) structure and inside roles; b) powerful members; c) interaction and dependence of sub-groups and d) vulnerabilities and resilience. Those results show up differences between networks, advantages and limitations of SNA perspective in comparison with *weberian* approaches and further applications for investigation and intelligence purposes.

10h50 to 11h10

Dismantling Criminal Networks: Can Node Attributes Play a Role?

David A. Bright
University of New South Wales

Catherine Greenhill
University of New South Wales

Natalya Levenkova
University of New South Wales

Internationally, there is recognition of the need to more clearly understand drug markets and the criminal syndicates that operate within them, in order to target drug law enforcement interventions in the most effective ways. The current project aims to fill some of the gaps in knowledge about the structure of drug trafficking networks using SNA, and to evaluate the impact of different types of law enforcement interventions directed at drug trafficking networks. We build on earlier work in which judges' sentencing comments were used to build a network map of a drug trafficking syndicate which operated in Australia in the 1990s. As well as producing a network map, this study was also able to identify the role that each individual played within the syndicate. We wish to explore the effectiveness of different hypothetical intervention strategies that aim to dismantle the network. First we investigate the structure of the network and show that it shares some properties of scale-free networks. Then four enforcement scenarios will be tested via simulation: (1) interventions which target individuals based on degree centrality; (2) interventions which target individuals based on role, (3) interventions which combine the first two strategies, and (4) random intervention. The results offer some guidance to intelligence and operational law

enforcement when determining which individuals to target, and specifically the impact of targeting individuals based on high degree centrality and roles within the networks, as compared with a baseline (random) intervention.

11h10 to 11h30

Francesco Calderoni
Università Cattolica del Sacro Cuore di Milano

Strategic Positioning in Mafia Networks

This paper analyzes two criminal networks from the 'Ndrangheta, a mafia-type criminal organization originating from Calabria, a Southern Italian Region. The literature on criminal networks argues that different measures (degree and betweenness centrality) may capture different aspects of individuals' positioning in criminal organizations. Degree centrality is frequently considered a signal of visibility, i.e. vulnerability, while betweenness centrality reveals a more strategic position, allowing control of information and activities, as well as minimization of risks of detection. The paper analyzes network positioning in the context of mafia-type organizations. The analysis focuses on specific characteristics of the individuals in the networks (formal membership of the 'Ndrangheta, kinship with other members, task and status within the network) and how these impact on network positioning (centrality scores) and outcome in the criminal proceedings (arrest, conviction and sentence). Results are discussed in the context of previous findings on network positioning in drug trafficking groups.

11h30 to 11h50

Rémi Boivin
Université de Montréal

Drug Trafficking Networks in the World Economy

It has been argued in the past that transnational drug trafficking requires trade networks that often overlap with legitimate markets. However, countries that benefit from the drug trade rarely occupy key positions in the global legitimate economy. This presentation offers an empirical analysis of transnational drug trafficking. Based on data collected by the United Nations Office on Drugs and Crime from 1998 to 2007, separate networks of exchanges between countries were built for cocaine, heroin, and marijuana. Those networks are compared to legal trades. Important differences are found: the density of drug trafficking networks is lower than their legitimate counterparts; core countries in the global economy are less pivotal in the drug trade while many peripheral countries play important roles; and a larger proportion of drug exchanges are directed towards countries located at the core of the global economy. In many ways, transnational drug trafficking is structured inversely than legitimate trade economies.

11h50
Discussion

12h10
Lunch - Restaurant Ridi
(Hôtel Méridien)

13h20 to 13h40

Investing in 'People': A Social Network Analysis of the Diffusion of the ERON Mortgage Fraud

Rebecca Nash
Simon Fraser University

Martin Bouchard
Simon Fraser University

Aili Malm
California State University - Long Beach

Drawing on diffusion theory, the current study examines the spread of a securities fraud through social networks in which contact with new victims is contingent upon social ties that make up the network. Network data on more than 559 victims of the ERON mortgage fraud (1993-1997), one of the largest frauds ever detected in Canada, has been collected to re-construct this network. Focusing on key players and the type and proximity of ties linking victims to their sellers, this study examines the diffusion of the ERON fraud from 1993 to 1997. Preliminary results indicate that ERON principals were key in starting the diffusion process, but that the diffusion was sustained by unsuspecting victims who spread the fraud to others. As such, these victims became genuine "brokers" in their own victimization network. In addition, the results suggest that the type and proximity of ties linking a victim to his/her seller (family/friends, ERON mortgage brokers, advertisement, etc.) and the centrality of that seller in the network has a direct impact on the amount of money victims invested in ERON. The implications of these results will be discussed within the context of the role of social network analysis in highlighting some of the unique features of the diffusion of fraud schemes.

13h40 to 14h00

Broker Zero: The Social and Geographic Spread of Ponzi Scheme Investory Networks

Aili Malm
California State University - Long Beach

Andrea Schoepfer
California State University – San Bernardino

Gisela Bichler
California State University – San Bernardino

This study offers a rare glimpse into the victims of a Ponzi scheme and serves as a starting point for understanding the spatial and social network dynamics of financial fraud. Drawing on both diffusion and contagion theory, we examine the social and geographic spread of fraud victims. Preliminary results show that the information "brokers" for the fraud (those who introduced new victims to the scheme) are located close to the geographic center of the victimization network, and as an investor's spatial distance from other investors increases, their network centrality decreases. Additionally, those who invested early in the fraud and those who lost more are also more likely to have lived close to the geographic center of the scheme. Policy implications for financial fraud and implications for combining social network and spatial analysis are also discussed.

14h00 to 14h20

The Social Organization of Defection: Illegal Networks and the Collapse of Watergate, 1971–1973

Eric Cheney
Central Washington University

Robert R. Faulkner
University of Massachusetts

Economists' game theory models and sociologists working within rational actor assumptions predict that political conspiracies succumb to defection as state authorities detect wrongdoing and threaten punishment. Although strategic action is part the defection process, we contend that game theory and rational actor assumptions and analysis do not offer a model predicting which specific actors defect in political conspiracies. We use the Watergate scandal to model the social structure of political conspiracy and to predict which specific conspirators defect from Nixon's cadre. Block modeling the sociomatrices of the Watergate corruption reveals political conspiracies to be organized by decentralized cabals coordinating with a core cadre. Because concealment and secrecy is critical in political conspiracies, intermediating roles between the core cadre and the cabals act as insulation, facilitation, and placation. We test the effects of two kinds of intermediating roles on defection – representative and gatekeeper. We find that intermediating roles/positions predict defection. Findings show that brokers both benefit individually from their structurally autonomous position, but the autonomy of the individual brokers is a liability for the overall group level conspiracy as it is the structural position of the broker where the conspiracy collapses.

14h20
Discussion

14h40
Coffee Break

15h00 to 16h00
Final Discussant

Michael Lev**i**
Cardiff University

16h00
Closure