Applying the routine activity theory to develop strategies for preventing Internet crimes against children

Section Title	Media/Council on Clinical Information Technology (Joint Session)
Session Number:	H112
Name:	Brian Boetig, Supervisory Special Agent
Institution:	Federal Bureau of Investigation
City, State:	Campbell, CA

Brian Parsi Boetig

June 2007

In the past 12 months, the author has not had a significant financial interest or other relationship with the manufacturer(s) of the product(s) or provider(s) of the service(s) that will be discussed in this presentation.

This presentation will not include discussion of pharmaceuticals or devices that have not been approved by the FDA or if you will be discussing unapproved or "off-label" uses of pharmaceuticals or devices.

This paper was written under the guidance of Dr. Byongook Moon and the University of Alaska Fairbanks's Justice Department. The opinions and statements contained in this paper are those of the individual author and should not be considered an endorsement by the Department of Justice or the Federal Bureau of Investigation.

Introduction

New and evolving dangers posed by sexual predators targeting children on the Internet are problems faced by every U.S. law enforcement agency. The dangers to children with access to the Internet are the same regardless of the demographics, size or economic status of a community. Aggrandizing the danger are reports that a majority of school aged children use the Internet (National Center for Education Statistics, 2003). Once on the Internet, nearly one in every seven children receives an unwanted sexual solicitation and one in three is exposed to sexual material (Wolak, Mitchell & Finkelhor, 2006). This sexual material, often in the form of child pornography, has escalated through the evolution of the Internet and other computer technologies such as digital cameras, streaming video and vast storage mediums (Wortley & Smallbone, 2006). The proliferation of new computer technologies present challenges for law enforcement, including the responsibility for continuously adjusting and updating prevention strategies to combat the ever-changing tools and tactics of child predators. This paper will propose applying the routine activity theory, a simple yet proven crime control model, to develop useful and productive strategies to reduce Internet-based crimes against children.

The routine activity theory has become the cornerstone research that countless researchers have applied to a variety of criminological research undertakings and practitioners have used to create models to address real world crime problems (Cohen & Felson, 1979; Felson, 1998; Fisher, Cullen & Turner, 2002; Henson & Stone, 1999; Mustaine & Tewksbury, 1999, 2002, 2003; Tewksbury & Mustaine, 2001). The routine activity theory describes the fundamental components of predatory crimes and it serves as an effective crime control model by which criminal justice policies aimed at reducing specific crime issues can be developed (Pridemore, 2000). To employ the theory in the manner proposed in this paper, a user must have an understanding of the routine activity theory and the modus operandi of Internet child predators.

This paper will first provide a comprehensive overview of the routine activity theory, including its origin, components, modifications and usefulness as a model for analyzing criminal activity. Next, it will provide a description of sexually motivated Internet crimes against children. Through a literature review, the various applications of the routine activity theory will be examined along with scholarly and government research on Internet crimes against children. The primary focus of this paper will be to explore how the routine activity theory's components can be exploited to develop strategies for reducing the sexual exploitation of children over the Internet, including demonstrating how current prevention strategies are supported by the theory.

The Routine Activity Theory

The routine activity theory, developed by Felson and Cohen (1979) was landmark research that provided a new perspective on the criminological outlook of crime. While most extant theories prior to the late 1970s focused primarily on the criminal and their motivations and environment, Felson and Cohen simplified concepts in the routine activity that were generally taken for granted. The focus was taken off the criminal and placed on the criminal act (Cohen & Felson, 1979; Felson, 1997). They readily admitted that the routine activity theory was not groundbreaking, just "frequently overlooked" in the existing academic criminal research (Cohen & Felson, 1979, p. 591).

During the decades preceding Felson and Cohen's development of the routine activity theory, a new breed of classical thinkers was replacing the scientific and theoretical perspectives of crime in the 1970s by seeking "workable solutions to the problem of crime" (Pfohl, 1994, p. 83). Studies exploring residents' actions directed at reducing access to offenders, distances of homes from the central city, and criminals' accounting for property layout and human activity around homes were all published in the 1970s (Cohen & Felson, 1979).

The routine activity theory sought to fulfill shortcomings in the existing theories that did not adequately address the crime rate trends occurring since the end of World War II (Cohen & Felson, 1979). Bureau of the Census reporting on trends in metropolitan areas after the war were indicate of social and economic progress (Cohen and Felson, 1979). Criminologists had focused on the same social and environmental issues measured by the Bureau and correlated them to crime rates. When criminological theories were applied to the Bureau's data in 1960, they would have been indicative of a reduction in crime as social and economic conditions improved, but the crime rate data were actually showing increases in crime according to the Federal Bureau of Investigation's Uniform Crime Reports (Cohen & Felson, 1979). Without focusing on crimes themselves, existing deterministic research, which took into account all of the social and economic factors, failed to explain this deviance between the criminological theory and the Bureau's data. Felson (1997), along with others in this time period, addressed the issue through crime specific analysis. The specific analysis encompassed the social disorganization that was occurring primarily in metropolitan areas. This included increasing married female work force participation, unattended homes during workdays and vacations and collegiate attendance among other new or changed social patterns (Cohen & Felson, 1979). These social changes were examined and associated with crime rates (Cohen & Felson, 1979).

Theory Components

In the routine activity theory, Felson and Cohen (1979) explained differences in crime rates that could be attributed to changes in the routine patterns, or daily activities, of social interactions. These routine activities included employment, recreation, educational endeavors and leisure activities. The theory examined crimes as events, occurring at "specific locations in space and time, involving specific persons and/or objects" (Cohen & Felson, 1979, p. 589). Three crucial components necessary for predatory crimes to occur were identified: motivated offenders, suitable targets and the absence of capable guardians. The lack of anyone of these components was enough to prevent a predatory crime from occurring (Cohen & Felson, 1979). As communities changed, the routine activities of the citizens also changed. These societal changes caused the convergence of the three primary components to either increase or decrease in certain spaces and at certain times; therefore, changes in the crime rates occurred independent of "structural conditions that motivate" offenders (Cohen & Felson, 1979, p. 604).

Predatory crimes were selected as the focus of the routine activity theory. For the analysis, predatory crime was identified as an illegal act consisting of direct physical contact between an offender and a victim, or object belonging to the victim, which is taken or damaged (Cohen & Felson, 1979). This included such crimes as rape and

robbery as well as residential burglary and theft. The definition inherently excluded such crimes as possession of illegal contraband or public intoxication.

The motivated offender must have the willingness and ability to commit predatory crimes. The willingness and ability may be associated with a conscious plan to find a suitable target or the mere act of stumbling across one. Criminals' motivations, although the focus of most previous criminological research, was not considered by Cohen and Felson (1979); only the presence and actions of a motivated offender are analyzed in this model.

Motivated offenders select their targets while people conduct their routine activities. Target selection is based upon the value, visibility, accessibility and inertia, or mobility, of the target (Cohen & Felson, 1979). For example, expensive and moveable targets such as automobiles and portable electronic devices have a higher risk of victimization than do washing machines and large office supplies because the suitability of stealing them is better. To reduce the potential of being selected as a target, reducing the value, visibility, accessibility and inertia of the target is a critical step.

Both the motivated offender and the suitable victim can also use the technological and organizational advances of society to their advantages. The offender may use a weapon in the commission of the offense, but the target may also use it as a deterrent, thus, reducing their suitability. Automobiles, highways and telephones are more examples of societies' technical advances that have provided additional opportunities for offenders to thrive and victims to react. The ability to take successful evasive action or possession of protective tools, such as a weapon, can also reduce victimization (Cohen & Felson, 1979).

When a motivated offender identifies a suitable target, the presence or absence of a capable guardian becomes the determining factor in the actual commission or deterrence of the criminal event. Police and security guard presence is only a single form of capable guardianship protecting against crime. While the role of police has been exhaustively studied, the notion of the unwitting citizen assuming the role of the capable guardian has been neglected in research (Cohen & Felson, 1979). Citizens, as they perform their normal daily functions, play an important role in guardianship with no bias toward the presence or absence of illegal acts. As an example, a person at home during the workday may provide a form of guardianship over their neighbor's unoccupied home. If an offender chooses not to perpetrate the illegal act, despite the presence of suitable target, because of a fear that the guardian may cause the offender's capture, the neighbor serves as an unwitting capable guardian.

Cohen and Felson's research also examined the extent of capable guardianship in groups of people and at certain locations. People are more likely to be victimized when they are alone, with less guardianship, than they are in groups (Cohen & Felson, 1979). This occurs even if the group was assembled as a routine activity (i.e. a social function) with no intention of serving as protective force, or guardian, for the group (Cohen & Felson, 1979).

Handler Component Modification

Felson (1986) added the absence of a handler as a fourth component in a reworking of the routine activity theory. This was an attempt to build upon the earlier model where the presence of motivated offenders was simply a given factor (Cohen &

Felson, 1979) and to link the routine activity theory with the control theory (Eck, 1995). The handler component was a two-step process. First, social bonds developed in society have an impact on the motivation of offenders. These social bonds are the product of other criminological theories of order and deviance, such as social conditions, social processes theories (Samaha, 2003) and the control theory. Second, someone with a relationship to the offender can exercise control over the potential offender to motivate him or her to adhere to the social bonds. The relationship could be intimate, such as between a parent and child, or among strangers, such as between a police officer and juveniles.

Felson (1998, p. 53) modified the term "motivated offender" to "likely offender." This subtle change reflected the rational choice concept within the framework of the routine activity theory (Brunet, 2002). Where the routine activity theory was absent of an explanation on why criminals became motivated, the rational choice theory filled this void (Burnet, 2002).

Contemporary Usage and Popularity of the Routine Activity Theory Scholars, researchers and practitioners throughout the world are using Felson and Cohen's (1979) routine activity theory as an approach to the study of crime and to provide foundations for crime prevention and forecasting (Felson, 1998; Fisher, Cullen & Turner, 2002; Henson & Stone, 1999; Mustaine & Tewksbury, 1999, 2002, 2003; Roncek & Maier, 1991; Tewksbury & Mustaine, 2001). The theory has steadily continued to attract attention and support in a multitude of criminological areas (Pridemore, 2000). The areas include predatory crimes as outlined in the original theory (Cohen & Felson, 1979) along with others for which the model was not originally designed (Brunet, 2002; Farrell, 1987; Lynch, 1987; Osgood et al, 1996; Pridemore, 2000; VanderHeijden, 2001).

Felson (1998, 2001) applied the routine activity approach to explain crime and prevent crime in a series of books geared toward an audience of criminal justice students and researchers as well as loss prevention practitioners and interested parties. In addition to predatory offenses, Felson (2001) expanded the usage of the routine activity theory to fights, illegal markets and white collar crime and provided suggestions for preventing crime through a technique known as situational crime prevention. Situational crime prevention is the analyzing of unique characteristics associated with crime problems to arrive at prevention solutions (Felson, 1997). Felson and Clarke (1997) together used this same premise of combining the routine activity theory with situational crime prevention, to explore crime within the business environment and within the local community.

Within the study of victimology, the routine activity theory is applied quite often (Felson, 2001; Mustaine & Tewksbury, 1999, 2002, 2003; Tewksbury & Mustaine, 2001). The example of a burglar entering an occupied home with the intent to steal but who instead finds a woman to rape is a "malicious serendipity" of the routine activity theory presented by Felson (2001, p. 109). Mustaine and Tewksbury (2002, p. 90) use the routine activity approach to counter the "rape supportive culture" belief and show that not all women have the same risk of sexual assault based on their routine activities. Victimization is characterized as being less random and more spatial and temporal as outlined by routine activity theory (Mustaine & Tewksbury, 2002)

College campus safety has been the setting for researchers applying the routine activity model, mainly for victimization studies (Fisher et al., 2002; Henson & Stone, 1999; Mustaine & Tewksbury, 2003). Henson and Stone (1999) apply the routine activity theory to the rates of criminal victimization on college campuses and concluded that the young people frequenting college campuses provide a continuous supply of suitable targets, especially with their abundance of portable goods. They generally lack suitable guardians (Henson & Stone, 1999), and engage in risky lifestyles, such as partying and consuming alcohol and narcotics (Fisher et al., 2002). Mustaine and Tewksbury (2003) expand on the topical area of guardianship, exploring those who make efforts to decrease their individual level protective behaviors and why they do it. The research used a sample population from a college campus (Mustaine & Tewksbury, 2003). A general fear of crime was not a significant influencing factor, but rather, specific, objective knowledge of the potential exposure to likely offenders and characteristics of the surrounding area caused changes in the routines of potential victims (Mustaine & Tewksbury, 2003).

Stalking is another criminology field extensively applying the routine activity theory (Fisher et al., 2002; Mustaine & Tewksbury, 1999). It is yet another application of the victimization-related area of the routine activity approach. While the topical areas run concurrent with several of the other areas discussed, such as college crime (Henson & Stone, 1999; Mustaine & Tewksbury, 2003) and victimization (Mustaine & Tewksbury, 2003), research has used the routine activity approach to model stalking incidents, vulnerabilities and its likelihood (Fisher et al., 2002). Again, as with other types of victimization, stalking's prevalence on college campuses is related to the stable presence of suitable targets and the lack of capable guardians. Tewksbury and Mustaine (1999, p. 57) applied the routine activity theory to determine that college women become suitable targets based on their routine and daily activities. The objective of the research was to identify the lifestyle routines of stalking victims in order to give some predictive value to the likelihood of becoming a stalking victim (Tewksbury & Mustaine, 1999, p. 46).

The routine activity approach was applied to the analysis of international drug control policy in the Netherlands (Farrell, 1997; VanderHeijden, 2001), which was an application not considered in the original theory development. Farrell (1997) contends that in an attempt to develop drug control policies, the Dutch have become too far-reaching in their policy development and reviewing and reformulating policy based on the more simplistic routine activity approach could prove useful. VanderHeijden (2001) presented a similar argument several years after Farrell's research regarding the Netherlands and the application of the routine activity theory as an explanation for the country's narcotics' problems.

It is clear that many researchers are using the routine activity approach to address crime problems in order to explain it and develop preventive measures and solutions. In existence for two and a half decades now with only a minor alteration, they theory, with its unique applicability to a variety of criminological topics, makes it a resourceful model for crime related studies. Based on the popularity of the theory in current research, it is clear that the routine activity theory will remain a tool for practitioners and source of interest for researchers for several more decades.

Sexual Victimization on the Internet

The development and advancement of Internet technologies has had an enormous impact on many arenas, both positive and negative, of social life and routine, daily activities. The Internet is regularly on the forefront of emerging technological advancements, especially in the spectrum of sexuality issues (Griffiths, 2000). Sexuality-focused uses of the Internet can be affiliated with a wide scope of behaviors from the legitimate search for educationally-based sexual material all the way to the illegal and socially unacceptable practice of committing and promoting sexual crimes against children (Griffiths, 2000).

Several features of the Internet enable it to be a useful and common tool in perpetrating sexually motivated crimes. First, access to the Internet is affordable and convenient; it is available at homes, schools, work and public places. The accessibility of the Internet also provides the offenders with access to a much larger potential victim population, to include most people that have Internet access. Another feature is the Internet's ability to provide a degree of anonymity, allowing exploration of sexual interests that may have otherwise not been acted upon without it (Mitchell, 2005; Wortley & Smallbone, 2006). These sexual interests include a broad scope of behaviors to include the production, receipt and trading of child pornography, seduction and grooming of victims and the arrangement of meetings with victims (Mitchell, 2005). These Internet interests and activities can often rise to the level of being violations of state and federal laws. While the extent of the Internet crimes against children problem is not easily quantified (Finkelhor & Ormrod, 2004), it is considered a serious problem and has been brought in to the national spotlight (United States Department of Justice, 2006).

U.S. Recognition of Internet Victimization of Children

In February 2006, U.S. Attorney General Alberto R. Gonzales announced the initiation of Project Safe Childhood, a national initiative "aimed at preventing the abuse and exploitation of kids on through the Internet" (United States Department of Justice, 2006, p. iii). Project Safe Childhood is evidence of the broad scope of child exploitation through the Internet and its infamous position as a national issue impacting most law enforcement agencies. Project Safe Childhood calls for locally designed partnerships among law enforcement agencies to investigate and prosecute child exploitation cases, identify and rescue child victims, increase federal involvement in child pornography and enticement cases, provide training to federal, state and local law enforcement to combat Internet crimes against children and develop community awareness and educational programs (United States Department of Justice, 2006). The community awareness and educational programs specifically will seek to "instruct parents and children on the steps that can be taken to make Internet usage safer" (United States Department of Justice, 2006, p. 20). It is in the development of these enforcement strategies and educational programs that the routine activity theory can be effectively employed to reduce the likelihood of the convergence of the three components necessary for a predatory Internet crime against a child to occur. The literature conducted on Internet crimes against children will be examined next. Specifically, shortcomings associated with current Internet crimes against children prevention advice, along with the various types of Internet crimes against children that are commonly perpetrated will be presented.

Internet Sexual Victimization Literature

Technically savvy Internet child pornographers have been using the Internet since the earliest public usage was available (Mehta, 2001; Wortley & Smallbone, 2006); however, only in the last six or seven years has much literature been published on the topic (Luna & Finkelhor, n.d.). The available literature is focused on a variety of topics, which unfortunately results in a lack of depth or independent support to the conclusions being drawn in individual studies (Luna & Finkelhor, n.d.) and future research is clearly recommended (Griffiths, 2000; Mehta, 2001; Wolak et al., 2004; Ybarra & Mitchell, 2005). There is relatively no depth in the compilation of research because only a few studies have been conducted. Only the National Center for Missing and Exploited Children (Finkelhor et al, 2000; Wolak et al., 2006) has conducted a survey in which past data was compared to recently collected data using the same variables. Even with this limitation on available research and follow-up research, many of the studies discuss similar aspects of Internet crimes against children, such as offender types and prevention strategy improvements.

Victimization Characteristics

Despite the limited amount of research available to thoroughly examine the Internet crimes against children, the National Center for Missing and Exploited Children (2006) has been on the forefront of publishing research conducted in the field. Perhaps the most relevant publication of The National Center for Missing and Exploited Children for this paper is the Online Victimization of Youth: Five Years Later report (Wolak et al., 2006). The report expands upon a cross-sectional sample of youth surveyed in 1999 and 2000 about their Internet usage and habits that have been prompted by the growth of Internet use by youth and concerns about the amount, frequency and types of sexually inappropriate behaviors and content to which children could be exposed on the Internet. The results of the survey have been used in education and prevention campaigns that were later developed (Wolak et al., 2006).

The National Center for Missing and Exploited Children report by Wolak et al. (2006) identified several types of online victimization. The first was sexual solicitation and approaches, which was identified as a situation when an adult engages in sexually-based conversations or activities with a child. If the sexual solicitations and approaches were followed by offline contact, the conduct was referred to as aggressive sexual solicitation. The next type of online victimization was the unwanted exposure to sexual material. This victimization occurred when children were unknowing exposed to pictures of naked people, whether the children received the pictures from a source sending it to them or if they inadvertently stumbled across it while browsing the Internet. Harassment was defined as threatening or offensive behavior without sexual solicitation.

The report identified a slight reduction in sexual solicitations from the first survey, and attributed it partially to a reduction in youth interacting over the Internet with strangers and lower number of youth visiting Internet chat rooms. No empirical indication was given why these reductions occurred. The survey indicated no change in the number of youth reporting aggressive sexual solicitations but it did find an increase in the percentages of solicitation and grooming techniques used, including asking to meet in person, calling on the telephone, traveling to the youth's home, sending mail and purchasing items and gifts (Wolak et al., 2006). Many of the solicitations were clearly a federal crime in violation of 18 U.S. Code § 2256 (Wolak et al., 2006).

The unwanted exposure to sexual material by youth increased dramatically within the five year interval of the National Center for Missing and Exploited Children surveys (Finkelhor et al., 2000; Wolak et al., 2006). Even with the increase in unwanted exposures, youths' disclosure of the incidents to responsible parties had potentially lessened (Wolak et al., 2006). There was a general lack of reporting of all sexually inappropriate Internet behaviors, including the most egregious, to authorities including parents, guardians, law enforcement and Internet Service Providers (Wolak et al., 2006).

Wortley and Smallbone (2006) identified the potentially illegal conduct of child pornography offenders by describing the variations among offender patterns, from mere browsers to physical abusers and child pornography producers. Wolak, Finkelhor and Mitchell (2004) also examined the stereotypes of offenders in the realm of Internet crimes against children and found that during the offender's grooming process of the victim, offenders rarely posed as other juveniles and that child victims often agreed to meet the offenders; there were few cases of abduction, force or coercion. The characterization of "stranger" for offenders is misleading because there was often extensive communication, both online and off, prior to any physical meetings between offenders and victims (Wolak et al, 2004).

Reduction Strategies

Strategies aimed at reducing Internet victimization of children have been created and examined (I Safe, 2005; Stahl & Fritz, 2002; Wolak et al, 2006; Wortley & Smallbone, 2006). Many of these reduction strategies will later be synthesized with the routine activity theory to evaluate its application in support of these messages. Wolak et al. (2006) provides several recommendations for reducing Internet victimizations. The most overwhelming recommendation was the expansion of solicitation prevention messages. It was suggested that future prevention messages include the fact that not all Internet victimizations occur by strangers as broadcast in many previous and current prevention messages. Many Internet victimizations occur with people offline and are later brought to an online environment. Also, addressing youth in the production and transmission of sexual photographs, promoting the reporting of Internet crimes, to include reasons to report and reporting options and evaluating and improving filtering, blocking and monitoring software solutions were recommended for future prevention messages.

Wolak et al. (2006) was one of many studies providing recommendations for change needed to reduce Internet crimes against children. Wortley and Smallbone (2006) gave recommendations for the computer and Internet industry, legislative, related industries, parents and law enforcement to curb Internet child pornography. Wortley and Smallbone (2006) focused their attention solely on Internet child pornography rather than Internet predators engaged in solicitation, but their recommendations mirrored some of those presented by Wolak et al. (2006). For the computer industry, considered by Wortley and Smallbone (2006) to have a central role in the reduction of Internet child pornography, the removal of illegal child pornography sites, the establishment of complaint sites and hotlines and the use of filtering browsers and child friendly search engines were recommended. The legislative recommendations, which have an impact on the computer and Internet industry, included holding Internet Service Providers (ISP) responsible for the content on their sites, requiring the preservation of records for law enforcement investigations, requiring ISPs to collect valid user identification rather than permitting users to register anonymously or with false information and providing key escrowed encryption standards to assist in the decrypting of pornographic images (Wortley & Smallbone, 2006). While the ISPs certainly have a direct nexus to child pornography sites, other industries have a connected role. Since many child pornography sites collect payment for the images they provide, banks and other payment collectors are viewed as interested parties in combating child pornography. Parents are urged to use filtering software, review web ratings set by the Recreational Software Advisory Council in the Internet and promote child-oriented search engines (Wortley & Smallbone, 2006). Finally, law enforcement is given the greatest tasking with locating and dismantling child pornography sites, conducting undercover operations targeting the child pornography websites, publicizing child pornography crackdowns and setting up "honey-pot" sites, which are designed to lure prospective child pornographers into providing personally identifying information. Vigilante efforts targeting child pornography are discouraged due to ineffectiveness and potentially illegal conduct (Wortley & Smallbone, 2006).

While research has indicated that general prevention messages aimed at reducing online contact with strangers and providing personally identifying information have gone widely ignored (Stahl & Fritz, 2002), Wolak et al. (2004) surmise that the accuracy of messages may be faulty. One reason was because not all Internet crimes against children involve strangers. This finding is concurrent with the National Center for Missing and Exploited Children (2006) finding that 14% of solicitors were known to the child prior to the online contact. The reality that family members, acquaintances and other youth may be online predators has been severely underemphasized (Wolak et al., 2004). This familial and acquaintance relationship could also be related to victim characteristics. Victimology was examined and correlated to the likelihood of online victimization. Such factors as poor parental relationships, loneliness and depression and being gay or boys who are questioning their sexuality may have an increased vulnerability.

Wolak et al. (2004) provide a very specific, yet limited recommendation regarding the types of prevention methods that will be effective, with victimology spearheading the recommendations. They recommend that the general audience of adolescents needs to be targeted. The focus of the awareness should involve the details of how most Internet relationships are emotionally and romantically unhealthy and the long-term consequences of inappropriate Internet exposure (Wolak et al., 2004).

In another study conducted by the same three authors, Mitchell, Finkelhor and Wolak (2005), the role of family and acquaintances as Internet abusers was explored. They concluded that nearly one-fifth of Internet crimes against children were committed by family members or acquaintances, even though they represent a low number of the arrest statistics and generate the least amount of media coverage (Mitchell et al., 2005). The implication of this finding for those organizations creating prevention messages is to include scenarios and reporting outlets where offenders are family members or acquaintances (Mitchell et al., 2005). Mitchell et al. (2005) also suggest the creation of age specific prevention messages because their data suggested certain patterns of victimization. One clear pattern was the victimization of females under the age of 12 was

more likely to occur by a family member while acquaintance offenders more often targeted male teenagers.

The Routine Activity Theory and Internet Crimes Against Children The established versatility of the routine activity theory provides an outstanding platform for applying it to Internet crimes against children prevention strategies. This section of the paper will operationalize Internet crimes against children and relate the components of the routine activity theory to the elements of these types of crimes. In the subsequent synthesis section, the routine activity theory will be used as a model for developing new prevention strategies and supporting some strategies already in existence.

Internet Crimes Against Children Operationalized

Elementary to the routine activity theory is its application to predatory crimes. The theory requires predatory crimes to be operationalized as an illegal act with direct physical contact between an offender and the victim. First, all the acts that will be operationalized for this paper will be considered illegal even though legal standards may vary in different locations. The reason non-legal definitions will be satisfactory in this application of the routine activity theory is because the reduction strategies will not be aimed at meeting a legal threshold for arrest or prosecution, but rather, the strategies will be providing sound guidance on how to prevent the convergence of motivated offenders with suitable victims. Second, this paper's application of the routine activity theory to Internet crimes against children is novel because physical contact as traditionally associated with the theory, meaning the ability of a motivated offender to physically touch the suitable victim, will not always be present. Many of the Internet crimes against children is contact and the interaction will be a virtual contact in cyberspace. Since the virtual contact itself constitutes a crime, it can be considered direct physical contact as required by the theory (Cohen & Felson, 1979).

The crimes that were described by Cohen & Felson (1979) that were inherently excluded from being included in the routine activity theory's application were those where the state was the victim rather than an individual or piece of property, even though some researchers have uniquely applied the theory to these types of crimes (Farrell, 1997; Pridemore, 2000; VanderHeijden, 2001). Internet crimes against children provide a clear victim to offender relationship, thus making the theory's application even more suitable.

The phrase "Internet crimes against children" is a broad descriptor of a category of crime encompassing a diverse series of offenses or activities. For this paper, there are several offenses and behaviors that will be operationalized as Internet crimes against children, although this is not an exhaustive list. The offenses and behaviors are Internet child pornography, lewd online conduct and traveler cases, each of which will be described below.

Internet Child Pornography

Child pornography on the Internet will be defined for this paper as those images which are stored and/or transmitted over the Internet depicting real children in sexualized positions in varying degrees of nakedness that expose the male or female genitals. Wortley and Smallbone (2006) provided a non-legal definition of child pornography with a sliding scale from non-sexualized pictures of children collected from legitimate sources, such as children's clothing magazines, all the way to images depicting sadistic and bestiality assaults on children. The definition chosen for this paper is more restrictive to exclude the non-sexualized pictures to lessen debate over the social, ethical and moral appropriateness of these non-sexualized depictions. Also, the images must be of real children and not drawings or digitally manipulated images.

Internet child pornography encompasses three stages: production, distribution and downloading (Wortley & Smallbone, 2006). Production is the creation of new images. It involves the active participation of a child, and therefore the direct physical contact element of predatory crimes in the routine activity theory is established. Distribution is the uploading and dissemination of the images. While this may involve an offender sending images he has created, it can also be considered to be perpetrated when a child sends pornographic images of his or her self to an offender who is requesting the images. Since the contraband image is possessed at some time by both the offender and the child, the cyberspace version of direct physical contact is established. Finally, downloading is the receipt of the images. Downloading occur as a result of actively seeking child pornography as an offender might do, especially those who are considered browsers, private fantasizers, trawlers, collectors, groomers and physical abuser (Wortley & Smallbone, 2006). While this downloading action brings an offender in contact with contraband, an actual victim suitable for the routine activity theory application is more abstract. Even though a child is not actively engaged in the criminal act at the moment of downloading, unless the pictures are being transmitted in real time, there is still a long term impact and series of consequences associated with the victimization of the child appearing in the pornographic image (Wortley & Smallbone, 2006).

The downloading of child pornography applicable to this paper includes the receipt of child pornography images sent in an e-mail or instant message that are opened by a child recipient or exposure to unwanted child pornography while browsing the Internet. If the images are encountered while unwitting Internet users are browsing the Internet, the website administrator hosting the child pornography will be considered the offender. This paper will only address exposure specifically to child pornography and not the broader category of unwanted exposure to sexual material, which involves sexually-based images of consenting adults, as examined by the National Center for Missing and Exploited Children (Wolak et al., 2006).

Child pornography will be operationalized as an Internet crime against a child when images are stored and/or transmitted over the Internet and depict real children in sexualized positions in varying degrees of nakedness that expose the male or female genitals are produced, distributed or received. Child pornography is not mutually exclusive of the next two topical areas to be discussed; therefore, lewd online conduct and traveler cases may have elements of child pornography.

Lewd Online Conduct

Lewd online conduct involves the actions of adults engaging in communication containing inappropriate sexual overtones with children on the Internet (Quayle & Taylor, 2001; Wolak, Finkelhor & Mitchell, 2004). Lewd conduct can be delivered through e-mail, chat rooms and other electronic means. Because an offender is directly communicating with a child, the direct physical conduct needed in this cyber application

of the routine activity theory has been met. As previously cited, the delivery of or request for child pornography could constitute both a lewd online and child pornography.

Traveler Cases

Traveler cases are those cases where an offender grooms a child over the Internet for the purposes of engaging in inappropriate sexual activity and the end result is a direct, in person, physical encounter between a victim and offender. The cases are called traveler cases because usually, either the victim and/or offender travels to have the encounter. The only cases where travel is unlikely are those in which victims and offenders are living in the same location, which is a possibility in Internet crimes against children cases (Mitchell, Finkelhor & Wolak, 2005). There is a clear establishment of the direct physical contact element of the predatory crime in traveler cases. Again, traveler cases are not exclusive of child pornography and online lewd conduct. In fact, online lewd conduct is often the precursor to a traveler case. The production, distribution and receipt of child pornography are also a potential element in traveler cases.

Routine Activity Theory Components of Internet Crimes Against Children

The routine activity theory's triad of components, including a motivated offender, a suitable victim and a lack of capable guardians, necessary for a predatory crime to occur was described in the introduction section of this paper. An element of the routine activity theory that Cohen and Felson (1979) briefly described when developing the theory was the use of technological advances by motivated offenders to advance their crimes and a potential victim's use of technologies to decrease their suitability as a victim. The Internet is clearly a technology used by both the motivated offender to perpetrate and advance their activities. Without the Internet, many offenders, referred to as recreational or at-risk users, may loose their motivation to act on their urges to engage in Internet crimes against children because of the degree of anonymity and safety to explore and express hidden thoughts and desires the Internet offers (Wortley & Smallbone, 2006). Other offenders, who are motivated to commit crimes against children regardless of their Internet access, may still use it to advance their desires. Conversely, potential victims, or those acting as guardians and handlers of the victims such as parents, employ technological advances to reduce or evade victimization. Some of these technological advances include such devices and programs as web filters and child friendly search engines (Wolak et al., 2006).

Motivated Offender

Motivated offenders in Internet crimes against children cases include those adults engaging in child pornography, lewd online conduct and/or traveler cases. The willingness of offenders to engage in Internet crimes against children can be predicated by their role as any one of the various categories or typologies of offenders, such as browsers or child pornography producers, distributors and receivers (Wortley & Smallbone, 2006). The motivation of offenders was intentionally ignored by Cohen and Felson (1979) when they developed the routine activity theory is primarily ignored in this paper. The reason the motivation will be ignored is because motivation has little impact on developing strategies to prevent the convergence of the routine activity theory's primary components. Also, the number of motivated offenders is seemingly endless and virtually unquantifiable for several factors, including limitations in crime reporting data (Doerner & Lab, 2002; Finkelhor, Cross & Cantor, 2005).

Handler

The handler modification to the routine activity theory can be applied in an effort to reduce an offender's motivations, albeit a difficult task. The first step of the handler component would imply that social bonds developed in society would have an impact on the offender. Unfortunately, the Internet has created a new cyber-society that can, in fact, encourage behaviors that are deviant and illegal because it is frequented and supported by other motivated offenders who psychologically validate the deviant behaviors (Lanning, 2001). The second step of the handler component involves the exercise of control over the motivated offender by an individual. This individual could be a licensed therapist, law enforcement officer, family member or any of a number of people. Limited applications of this role by law enforcement can be interpreted when court, probation or parole imposed requirements limiting Internet use is placed on an offender. Also, the monitoring of registered sexual offenders through websites that list convicted sexual offenders can be considered some form of a handler role, with the community serving as the handler, although the success of these programs is subject to empirical review.

Suitable victims

Since Internet use has become a routine activity of many children in the United States (Finkelhor, 2000; Worley et al., 2006), the motivated offender has ample opportunity to select suitable children as targets. Target selection is based upon value, visibility, accessibility and mobility of the target. Children are highly visible on the Internet. The visibility is often provided by the victims on their own web pages and blogs or can be easily located on the Internet on school and sports team websites. Accessibility is created through e-mail accounts, instant messenger features, logs and other communication features such as text messaging. Mobility on the Internet can be viewed as the ability and ease associated with moving among various chat rooms, websites, blogs and e-mail accounts.

Lack of Capable Guardians

Capable guardians for Internet crimes against children can be both intentional and unwitting. Intentional guardians include technological devices, such as filtering, blocking and monitoring software, chat room monitors, publicity highlighting the likelihood of being captured and the penalties associated with committing offenses on the Internet. Some websites administrators, ISPs and related industry companies are widely known to cooperate with law enforcement and therefore, Internet offenders try to avoid using these sites. Unwitting guardians can include chat room monitors, librarians and others whose mere presence may deter offenders from engaging in Internet crimes against children. For example, a library that requests users to identify themselves by presenting official identification and subsequently records the identifying data for purposes other than documenting users' identities (potentially the information is used to gauge the location from which the user lives to better distribute computer resources) may deter some offenders from using the library's computers to commit Internet crimes against children. This brief synopsis of capable guardianship roles is not an all inclusive list, but provides examples to lay the foundation for applying the routine activity theory in the following synthesis section.

Developing Strategies

Armed with both an operationalized definition of Internet crimes against children and how the elements of the crime crimes can be related to the routine activity theory's core components, law enforcement officials can develop strategies for preventing these crimes. This section will provide several examples of how the theory can be applied to develop these strategies. First, the theory will be applied to already existing prevention messages to assimilate the messages to the respective role they play in the theory. Next, an idiographic application of the theory will demonstrate the usefulness of the theory when it is applied to a single potential victim. The reason this example is valuable is because in the course of their duties, law enforcement officers will often encounter situations where they are called upon to counsel or advise children or parents how to reduce the likelihood of being victimized by offenders on the Internet preying on children. While officers can simply recited prevention strategies from handouts or prepared materials, it is plausible that they materials may be too general or fail to provide adequate advice to address individual and unique situations. For example, in an Internet Safety for Kids manual (I-Safe, 2006, p. 24), it is recommended that parents "learn who your kids are chatting with online (take the "don't talk to strangers" message into the digital world)." This guidance lacks the specificity needed to be of much value. Based on this advice, parents could engage in a series of behaviors ranging from continuous, over the shoulder monitoring of every keystroke made by a child to annual checks of a child's e-mail inbox and outbox. Both activities fall within the general scope of the guidance, but the first parental action is high impractical due to the time commitment and the second action may not be enough to adequately prevent victimization. Every potential victim's situation is unique and will require individualization to be the most effective.

In the final example, the theory will be applied in a more nomothetic manner, assuming all children in a specific community are beneficiaries of the strategies developed. This application is important because it will help support current prevention methods and assist in the creation of future prevention messages and investigative strategies, such as those being developed for Project Safe Childhood (United States Department of Justice, 2006).

Existing Recommendations and the Routine Activity Theory

Before developing hypothetical examples to assess the routine activity theory's application to Internet crimes against children, an examination of existing recommendations will be used for demonstrative purposes. Wortley and Smallbone (2006) recommended that the computer industry engage in self-regulation by taking steps to remove child pornography sites, establish complaint sites and hotlines and the use of filtering browsers and child friendly search engines. Removing websites where child pornography is routinely displayed or distributed completely from the Internet removes the possibility that children will view child pornography on that website. Establishing complaint hotlines provides an avenue for investigative leads to be forwarded to law enforcement to target specific motivated offenders. Each of these steps would effectively

serve the capable guardian roles that prevents or reduces the interaction of motivated offenders with suitable victims.

The legislative recommendations to hold ISPs responsible for the content on their sites serve to pressure ISPs to increase their capable guardianship online in fear of sanctions. The requirement of ISPs to collect valid user identification and preserve Internet logs serves to act as a capable guardian by reducing the anonymity, a key asset of the Internet for motivated offenders. In fact, the use of real identities can also be viewed as a handler component because it represents a message of the ISPs, and subsequently law enforcement, of holding an individual responsible for their actions. Key escrowed encryption standards, which requires encryption software companies to provide law enforcement the ability to decrypt programs, also serves as a capable guardian by increasing a law enforcement agency's ability to detect child pornography transmitted over the Internet.

If policy makers or prevention strategists want to take an alternative view on the role of ISPs in Internet crimes against children and attempt to reduce it by focusing efforts on the ISPs supporting these crimes rather than the producers, trawlers, travelers or other individuals engaged in inappropriate activities, they could assume that the ISPs are the motivated offenders. This exchange of routine activity theory roles presumes that the ISPs are responsible for committing the Internet crimes against children since it is their sponsored web space that is displaying the child pornography. The legislative controls placed on the ISPs could be considered handler controls over the ISPs.

Industries related to the Internet, such as banks and other online payment collectors, are also urged by Wortley and Smallbone (2006) to increase their capable guardianship by identifying individuals, companies and websites that are involved in Internet crimes against children. Essentially, if more private companies began to self-regulate for Internet crimes against children, motivated offenders may be more reluctant to engage suitable victims in fear of ISPs, banks and other industries discovering and disclosing their activities to law enforcement. If enough non-law enforcement entities become *law enforcement friendly*, meaning likely to report Internet crimes to law enforcement authorities, some motivated offenders may be reluctant to commit their crimes. Even entities that are not law enforcement friendly can serve as unwitting capable guardians if it is unknown whether or not they cooperate with law enforcement if an atmosphere of law enforcement friendly websites pervades the culture of the Internet industry.

Parental involvement in preventing Internet crimes against children serves two roles. First parents should serve as capable guardians, or deploy capable guardian tools, such as filtering software and child-oriented search engines (Worley & Smallbone, 2006). The second role of parents is to reduce the suitability of their children to become victims. This reduction of suitability as victims can occur through a variety of efforts, including education and prevention messages. Parents can provide both personal education and prevention messages along with ensuring that valid, systematic and age appropriate prevention messages are provided in schools and other places frequented by their children (Luna & Finkelhor, n.d.).

Finally, Wortley and Smallbone (2006) recommended several roles for law enforcement, most of which seek to enhance capable guardianship. The dismantlement of child pornography sites, undercover operations targeting the child pornography sites, high publicized child pornography crackdowns, and honey-pot sites all serve to send a message to motivated offenders that law enforcement is present and the likelihood of offender detection, identification, apprehension and prosecution is increasing.

Example 1 - Individualized Victim Prevention

Example 1 will assume that a law enforcement officer has been called to a residence to provide a mother advice on how she can reduce the likelihood that her 12 year old will be the victim of an Internet crime against a child as operationalized in the methods section of this paper. The application of the theory will be individualized to address the unique needs of this specific potential victim.

Amy is a single mother who lives with her daughter Mary. Amy works an evening shift and, therefore, is not home from the time Mary comes home from school until later in the evening. Amy's computer skills and usage are limited; she primarily uses the Internet for e-mail and basic website surfing. Mary, on the other hand, is quite computer savvy and uses the Internet daily to complete school assignments and communicate with friends through e-mail, chat rooms, blogs and instant messenger programs.

Motivated offenders are undoubtedly lurking while Mary surfs the Internet. It would not be plausible for Amy to try to reduce the motivation of the offenders as handler because there are so many offenders worldwide with a multitude of motivations. Rather, Amy should concentrate simply on reducing the likelihood that a motivated offender will interact with Mary. To reduce this likelihood, Mary must become an unsuitable victim or there must be enough guardians capable of preventing an offender from converging with her.

To reduce her suitability, Mary should receive Internet crimes against children prevention education and training. Training has proven to increase disclosure of abuse and exploitation (Luna & Finkelhor, n.d.). The training, to be successful, should have several key components. Mary's training should be age appropriate. At age 12, Mary should receive training specifically designed for her age group rather than being placed in a one-size-fits-all training endeavor for an audience ranging from 5 to 15 year old children. The training should also be continuous, occurring several times over several years to reinforce the messages. According to a National Center for Missing and Exploited Children guide on developing prevention programs (Luna & Finkelhor, n.d., p. 6), "repetition of concepts in additional sessions added significantly" to the learning process. Updating the caliber of material to reflect Mary's increase in cognitive comprehension abilities is also imperative to retain her interest in the topic. Prevention messages give potential victims the possession of protective tools to take evasive action (Cohen & Felson, 1979) to avoid encounters with motivated offenders. While it is understood that the routine activity theory is being used in this paper to develop and be the foundation for prevention strategies, utilizing existing education efforts will certainly not be harmful, although they may range in effectiveness from not effective to extremely effective.

To protect Mary, actions should be taken that reduce the value, visibility, accessibility and inertia of Mary as a target. If Mary does not represent herself as being 12 years old on the Internet, her value to those seeking to commit crimes against children

is decreases. Her visibility on the Internet certainly reduces the likelihood that she can be victimized. To one extreme, if Mary does not ever use a computer, it will be very unlikely that she will be the victim of an Internet crime against her. Limiting her time on the computer leads to less time that she is accessible to be victimized. Also, if she maintains a MySpace and Yahoo! personal profile webpage, areas often trolled by Internet predators for victims (Schrobsdorff, 2006), her visibility and suitability is substantially increased. If Mary responds to unsolicited e-mails, instant messages or chat room visitors, she is simply increasing her accessibility. The less she responds to these communications, the less accessible she becomes. If she does not posses a digital or web camera, she is less likely to be able to transmit her image across the Internet. In addition to her photograph traveling through cyber space, her ability to travel can impact her perceived inertia. If Amy permits Mary to take public transportation, ride in cars driven by older children or travel places without direct parental oversight, her ability to meet travelers or child pornography producers increases more so than if she were under competent parental supervision.

Joint efforts by Amy and Mary to reduce Mary's suitability as a victim of Internet crimes concurrently serve two routine activity theory component roles. Mary's efforts are directed toward making herself a less suitable victim while Amy's efforts can be seen as serving as a capable guardian for Mary. Example 1 presents some excellent examples of unwitting capable guardianship provided by Amy as well. For example, Mary's inertia, or ability to transport herself around the community, may be limited for reasons other than to prevent Internet crimes. If her mobility was limited due to her confinement to a wheelchair, the wheelchair serendipitously provides capable guardianship. Poor Internet service or outdated computer equipment may result in an inability to upload and download pictures, participate in chat rooms or create a personal webpage. These technological shortcomings ironically serve to increase guardianship. Even Amy's independent or employment related enhancement of personal Internet and computer skills will increase her ability to serve as a guardian by better educating her on Internet browsing, webpages, filtering software and how to monitor Mary's Internet activity.

Example 2 – Generalized Community Prevention

Example 2 will assume that a local law enforcement agency is attempting to reduce Internet crimes against children that are perpetrated in their jurisdiction. There is no specific crime or offender that has generated this effort; it is merely an aggressive prevention campaign. The application of the theory will be generalized to address the broad needs of the community's children, rather than one specific victim as was done in Example 1.

Since the law enforcement has historically played the role of capable guardian in society and in the original theory, it is most reasonable to expect that the guardian role is where most of their strategic efforts should be focused. Aggressive campaigns to remove websites promoting Internet crimes against children have been suggested as a primary role for law enforcement (Wortley & Smallbone, 2006). This type of law enforcement action provides the greatest impact on the convergence of the routine activity theory's components by completely removing the motivated offender's access to victims through the avenue of that specific web page. Without the website online, children will not manage to inadvertently access the images. Sting operations, such as the honey pot sites,

redirect the motivated offenders away from suitable victims and into the waiting arms of capable guardians. These types of activities are strategies that should be considered by law enforcement.

Other efforts not previously recommended by Worley and Smallbone (2006) include increased police monitoring of convicted child predators in the community, especially those convicted of Internet crimes against children, and the development of local task forces to identify current victims to prevent future victimizations. The task force should include elements outside of law enforcement that may receive complaints of child exploitation, such as school counselors and nurses, teachers, local hospital personnel and clergy. All of these addition capable guardians will serve as force multipliers for law enforcement.

Perhaps the greatest impact law enforcement can have as a handler over likely offenders is created by highly publicizing efforts to catch and prosecute offenders of Internet crimes against children as suggested by Wortley and Smallbone (2006). While not all offenders will be discouraged from continuing to perpetrate these crimes, those likely offenders who are fearful of capture may refrain from engaging in the illicit behavior if the fear of getting caught is too great. This notion is based in the classical perspective of deviance which alleges that potential offenders will counterbalance criminal activity with the possibility of being captured and punished (Mannle & Hirschel, 1998).

Finally, prevention messages aimed at making children less suitable victims should be presented by law enforcement. Perhaps a program similar to the *Drug Abuse Resistance Education* program, commonly referred to by its acronym D.A.R.E., could be the model because it employs many of the educational principles recommended by the National Center for Missing and Exploited Children in the development of prevention messages (Luna & Finkelhor, n.d.). These principles include age appropriate training, developmentally graduated levels of training delivered over several years, having qualified presenters and enhance self-confidence. While not an exhaustive list of the applications of the theory for law enforcement, the groundwork for applying the theory has been made.

Discussion

Researchers and practitioner have found the routine activity theory to be a useful tool in explaining predatory crimes and have applied it to a multitude of different crime problems (Felson, 1998; Fisher, Cullen & Turner, 2002; Henson & Stone, 1999; Mustaine & Tewksbury, 1999, 2002, 2003; Roncek & Maier, 1991; Tewksbury & Mustaine, 2001). The principles of the theory were sound enough in its development that it has proven itself versatile enough to adapt to applications that it was not originally designed to address (Brunet, 2002; Farrell, 1987; Lynch, 1987; Osgood et al, 1996; Pridemore, 2000; VanderHeijden, 2001). Although the Internet, as it is being used today in the commission of a variety of computer crimes, was not even in its infancy when Cohen and Felson (1979) developed the theory, its components are completely applicable to 21st century's cyber crime. Cyber crime, like all other predatory crimes, suitable victims and the lack of capable guardians. To accomplish this task, all three components of the theory can be exploited. Emphasis on the suitable victim and capable guardians

has the most immediate, direct impact for police when developing prevention strategies because all children with access to the Internet are potential victims and law enforcement agencies serve a primary role as capable guardians. Law enforcement focus on the motivated offender and the handler components can be less useful for law enforcement for a few reasons.

There is no shortage of offenders or theories of what motivates them to commit crimes against children and there are very few crimes that have been completely eliminated through law enforcement efforts. This paper will not suggest that the handler and motivated offender components of the routine activity theory are not applicable to reducing Internet crimes against children, just that they are not be the most productive avenue for proactive law enforcement efforts to target. Therapists, psychologists and counselors treating sexual offenders of crimes against children could apply the theory, using their influence over the offender, to prevent the convergence of the theory's components. Judges, probation officers and parole officers could use the theory to develop restrictions to develop restrictions to impose on offenders to prevent future crimes.

Since the routine activity theory is so versatile, the model can be adapted to redefine the role of the motivated offender. If policy makers wanted to reduce Internet crimes against children, they could assume that any mechanism facilitating these types of crimes holds responsibility for the victimizations. For example, rather than assigning ISPs the role of cable guardian, as was done in synthesis section, the ISPs could also be considered motivated offenders since it is their web space that facilitates the display or transmittal of elements of Internet crimes against children, for example, child pornography. If policy makers sought criminal and civil sanctions against these ISPs, the sanctions would serve as capable guardians as well as handlers. There is not a singular, one-size-fits-all application of the routine activity theory when addressing Internet crimes against children. It is this versatility that makes it a good tool for law enforcement to explore various angles when developing strategies to reduce Internet crimes against children.

The routine activity theory has experienced some criticism (Jeffery 1993; Massey, Krohn & Bonati, 1989; Miethe, Stafford & Long, 1987; Osgood, 1996; Tittle 1995); however, many of the critiques actually support this paper's application of the theory. Fore example, the simplistic nature of the routine activity theory was criticized as lacking value, referring to it as a "description of crime not an explanation" (Jeffery, 1993, p. 492). In this application of the theory, law enforcement should be less focused on understanding or explaining why the crimes occur. In fact, very few crimes are so simplistic in nature that one explanation would be universally applicable to all offenders or even useful in preventing future crimes. The emphasis that law enforcement needs to be successful in preventing Internet crimes against children should be placed on understanding how these crimes occur and can be dismantled though preventing the convergence of the theory's components. Title (1995) and Osgood et al. (1996) cited the lack of attention placed on the motivation of the offender as a criticism of the routine activity theory. Based on the diversity of offenders, from browsers to travelers to child pornography producers (Wortley & Smallbone, 2006), any attempt to narrow the pool of potentially motivated offenders would reduce the likelihood of creating generalized community prevention messages. Conversely, identifying potential offenders that are

most at risk, or highly motivated, for committing Internet crimes against children would be a valuable application of resources if a handler or capable guardian could closely monitor or address them.

The capture of criminals, along with the prevention of future crimes, is paramount to any law enforcement agency. With Internet crimes against children, law enforcement has a goal of solving existing violations of the law and preventing future child exploitations from occurring. In the private industry, crime control and prevention are generally not the goals of most organizations; profit is. Additional efforts and restrictions, such as establishing complaint sites and hotlines, using filtering browsers and search engines, maintaining Internet logs or proving law enforcement with decryption codes can be costly and cumbersome. Creating a law enforcement friendly environment is difficult because of the competing interests of law enforcement and private industry. Prevention efforts soliciting private industry involvement need to emphasize the nobility and duty affiliated with protecting the nation's children or at least the potential entrepreneurial benefits of publicly being portrayed as a company that does.

This paper is not suggesting that the routine activity theory is the only method for developing strategies to prevent Internet crimes against children, although it definitely can serve this purpose. Even if it is not used to develop prevention strategies, new prevention strategies can be tested by applying the routine activity theory to see if, in fact, the new strategies will prevent the convergence of the theory's components; if they do not, concern should be raised as to the potential effectiveness of the new strategies.

References

- Brunet, J.R. (2002). Discouragement of crime through civil remedies: An application of a reformulated routine activities theory. *Western Criminology Review*, *4*, 68-79.
- Cohen, L.E. & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review* 44, 588-608.
- Doerner, W.G, & Lab, S.P. (2002). Victimology, 3rd Ed. Cincinnati, OH: Anderson Publishing.
- Eck, J.E. (1995). Examining routine activity theory: A review of two books. *Justice Quarterly*, 12, 783-797.
- Farrell, G. (1997). Routine activities and drug trafficking: the case of the Netherlands. Unpublished manuscript, Rutgers State University of New Jersey. Retrieved January 21, 2004 from http://www.drugtext.org/library/articles/98911.htm.
- Felson, M. (1986). Linking criminal choices, routine activities, informal control, and criminal outcomes. In D.B. Cornish & R.V. Clarke (Eds). *The Reasoning Criminal: Rational Choice Perspectives on Offending* (119-128). New York: Springer-Verlag.
- Felson, M. (1997). The routine activity approach and situational prevention. In L. Siegel & P. Cordella (Eds.). *Contemporary Criminological Theory* (pp. 20-25). Boston: Northeastern University Press.
- Felson, M. (1998). *Crime and everyday Life*, Second Edition. Thousand Oaks, CA: Pine Forge Press.
- Felson, M. (2001). *Crime and everyday life*, Third Edition. Thousand Oaks, CA: Sage Publications.
- Felson, M. & Clarke, R.V. (1997). Business and Crime Prevention. Monsey, NY: Criminal Justice Press.
- Felson, M. & Clarke, R.V. (1998). *Opportunity makes the thief*. Police Research Group. London: Home Office.
- Finkelhor, D., Mitchell, K.J., & Wolak, J. (2000). Online victimization: A report of the nation's youth. National Center for Missing and Exploited Children. Retrieved 09/10/2006 from http://www.ncmec.org/en_US/publications/NC62.pdf
- Fisher, B. S., Cullen, F. T. & Turner, M. G. (2002). Being pursued: Stalking victimization in a national study of college women. *Criminology & Public Policy*, *1*, 257-308.
- Griffiths, M. (2000). Excessive Internet use: Implications for sexual behavior. *CyberPsychology* & *Behavior*, *3*(4), 537-552.
- Henson, V.A & Stone, W.E. (1999). Campus Crime: A victimization study. *Journal of Criminal Justice*, 27, 295-307.

- Internet Safety for Kids. (2006). *Protocol Analysis Institute*. Retrieved on October 7, 2006 from http://www.packet-level.com/kids/
- I Safe. (2005). Internet Safety for Kids. Retrieved on 10/01/2006 from www.packet-level.com/kids
- Jeffery, C.R. (1993). Obstacles to the development of research in crime and delinquency. *Journal of Research in Crime & Delinquency*, 30, 491-497.
- Lanning, K.V. (2001). Child molesters: A behavioral analysis. National Center for Missing and Exploited Children. Retrieved 09/22/2006 from http://www.ncmec.org/en_US/publications/NC70.pdf
- Luna, R. & Finkelhor, D. (n.d.). Guidelines for programs to reduce child victimization: A resource for communities when choosing a program to teach personal safety to children. *National Center for Missing and Exploited Children*. Retrieved 10/03/2006 from http://www.ncmec.org/en_US/publications/NC24.pdf
- Lynch, J.P. (1987). Routine activity and victimization at work. *Journal of Quantitative Criminology*, *3*(4), 283-300.
- Massey J.L, Krohn, M.D. & Bonati, L.M. (1989). Property crime and the routine activities of individuals. *Journal of Research in Crime & Delinquency*, 26, 378-400.
- Mannle, H.W. & Herschel, J.D. (1998). *Fundamentals of Criminology*, 2nd Edition. Englewood Cliffs, NJ: Prentice Hall.
- Mehta, M. D. (2001). Pornography in Usenet: A study of 9,800 randomly selected images. *CyberPsychology & Behavior*, 4(6), 695-703.
- Mitchell, K.J., Finkelhor, D. & Wolak, J. (2005). The Internet and family and acquaintance sexual abuse. *Child Maltreatment*, *10*(1), 49-60.
- Miethe, T.D., Stafford, M.C. & Long, S.J. (1987). Social differentiation in criminal victimization: A test of routine activities/lifestyles theories. *American Sociological Review*, 52, 184-194.
- Mustaine, E.E. & Tewksbury, R. (1998). Predicting risks of larceny theft victimization: A routine activity analysis using refined lifestyle measures. *Criminology: An Interdisciplinary Journal 36*, 829-858.
- Mustaine, E.E. & Tewksbury, R. (1999). A routine activity theory explanation for women's stalking victimization. *Violence Against Women*, *5*, 43-62.
- Mustaine, E.E. & Tewksbury, R. (2002). Sexual assault of college women: A feminist interpretation of a routine activities analysis. *Criminal Justice Review*, 27, 89-123.

- Mustaine, E.E. & Tewksbury, R. (2003). College students' lifestyles and self-protective behaviors: Further considerations of the guardianship concept in routine activity theory. *Criminal Justice and Behavior*, 30, 282-301.
- National Center for Education Statistics. (2003). *Rates of computer and Internet use by children in nursery school and kindergarten through twelfth grade: 2003.* Retrieved 03/04/2007 from http://nces.ed.gov/pubs2005//2005111.pdf
- National Center for Missing and Exploited Children. (2006). *Our Publications*. Retrieved on 09/25/2006 from http://www.ncmec.org/missingkids/servlet/ResourceServlet?LanguageCountry=en_US& PageId=0
- Osgood, D.W., Wilson, J.K., O'Malley, P.M., Bachman, J.G.. & Johnston, L.D. (1996). Routine activities and individual deviant behavior. *American Sociological Review* 61, 635-655.
- Pfohl, S. (1994). Images of deviance and social control. New York: McGraw-Hill.
- Pridemore, W.A. (2000). Review of When push comes to shove: A routine conflict approach to violence. *Journal of Criminal Justice and Popular Behavior*, 7, 125-128.
- Quayle, E. & Taylor, M. (2001). Child seduction and self-representation on the Internet. *CyberPsychology & Behavior*, 4(5), 597-608.
- Roncek, D.W. & Maier, P.A (1991). Bars, blocks, and crimes revisited: Linking the theory of routine activities to the empiricism of "hot spots". *Criminology*, 29(4), 725–753.
- Samaha, J. (2003). Criminal Justice, 6th Ed. Toronto, Canada: Thompson Wadsworth.
- Schrobsdorff, S. (2006, January 27). Predators Playground. *Newsweek*. Retrived 10/15/2006 from http://www.msnbc.msn.com/id/11065951/site/newsweek/
- Tewksbury, R. A. & Mustaine, E.E. (2001). Lifestyle factor's associated with the sexual assault of men: A routine activity theory analysis. *Journal of Men's Studies* 9, 153-182.
- Tittle, C. R. (1995). *Control and balance: Toward a general theory of deviance*. Boulder, CO: Westview.
- Wolak, J., Finkelhor, D. & Mitchell, K. (2004). Internet-initiated sex crimes against minors: Implications for prevention based on findings from a national study. *Journal of Adolescent Health*, 35(5), 424e11-424e20.
- Wolak, J., Finkelhor, D. & Mitchell, K. (2003). Internet sex crimes against minors: The response of law enforcement. National Center for Missing and Exploited Children. Retrieved 09/16/2006 from http://www.ncmec.org/missingkids/servlet/ResourceServlet?LanguageCountry=en_US& PageId=1456

- United States Department of Justice. (2006). *Project Safe Childhood: Protecting children from online exploitation*. Washington, DC. Retrieved on 09/06/2006 from http://www.projectsafechildhood.gov/guide.htm
- VanderHeijden, T. (2001). Routine activities and drug trafficking via the Netherlands. Paper presented at the meeting of the Institute for Human Rights & Criminal Justice Studies, Durban, South Africa.
- Wolak, J., Mitchell, K. & Finkelhor, D. (2003). Internet Sex Crimes Against Minors: The Response of Law Enforcement. National Center for Missing and Exploited Children. Retrieved 08/29/2006 from http://www.missingkids.com/missingkids/servlet/ResourceServlet?LanguageCountry=en _US&PageId=1456
- Wolak, J., Mitchell, K. & Finkelhor, D. (2006). Resources for Law Enforcement: Featured Publications. National Center for Missing and Exploited Children. Retrieved 09/10/2006 from http://www.ncmec.org/missingkids/servlet/PageServlet?LanguageCountry=en_US&Page Id=184
- Wortley, R. & Smallbone, S. (2006). Child pornography on the Internet. U.S. Department of Justice, Office of Community Oriented Policing Services, Problem Oriented-Guides for Police, Problem Specific Guide Series, 41, 1-88.
- Ybarra, M.L. & Mitchell, K.J. (2005). Exposure to Internet pornography among children and adolescents: A national survey. *CyberPsychology & Behavior*, 8(5), 473-486.