Policing Indecent Images of Children. 
What are the Critical Issues Surrounding Police Risk Assessment?

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Abstract
This paper will explore the key issues associated with the assessment of risk posed by individuals suspected of accessing indecent images of children (IIOC). The key themes discussed involve the breadth of the problem, the reason for police involvement, the content of IIOC being accessed, the ramifications for child victims, the relationship between IIOC offenders and contact offenders, the current approaches to risk assessment and the available risk assessment tools that can help prioritise high and low risk offenders. Overall, there is little consensus across police services internationally regarding the method of risk assessment for IIOC offenders. It is possible that without further investigation into the methods of formal and information prioritisation of offenders, and the manner in which risk assessment tools are utilised, police may allocate resources incorrectly and potentially, overlook seemingly low risk individuals engaging in high risk contact offending. The implications for this are catastrophic for child victims of contact IIOC offenders as the offence may go undetected as a consequence. The need for collaboration across disciplines is called for.

The Size of the Problem
There has been a significant increase in the volume and circulation of both pictures and videos of indecent images of children (IIOC) over the last decade that parallels the expansion of the Internet (Carr, 2004, Motivans & Kyckelhan, 2007, Wolak et al., 2011). In the 1990s, the Internet had less than 100 million users worldwide (Edelman, 2010) and the estimated individual hard-copy IIOC in circulation stood at 7,000 (Home Office, 2010). By June 2011, the Internet had 2.11 billion users (Internet World Stats, 2011) and police were seizing up to 2.5 million pornographic images in single collections alone; with the number of child victims depicted in the images amounting to the tens of thousands (CEOP, 2012; International Telecommunications Union, 2009). The number of individuals accessing IIOC has been suggested to run into the millions (National Center for Missing and Exploited Children, 2005) with 750,000 individuals estimated to be accessing the material at any one time (Maalla, 2009). It is estimated that 200 new images are posted daily (Wellard, 2001) and that IIOC turn over ranges from $3 billion to $20 billion per year (Hoover, 2006; Ropelato, 2003). However, estimates concerning IIOC are often unreliable and unrepresentative of the problem given it is illegal cross-globally and largely goes undetected. Various estimates should be treated with scepticism given estimates are often recycled from one publication to the next and IIOC volume is growing with technological advances (Wortley & Smallbone, 2012).

As Wortley and Smallbone (2012) highlight, the features of the Internet that are beneficial to society when undertaking legitimate activities, such as online banking or networking, are the very features that provide the ideal environment for individuals undertaking illegitimate activities, such as accessing illegal pornography or grooming children in chat rooms. Overall, the Internet and associated technologies have revolutionised the production, distribution and viewing of IIOC and have exacerbated the problem by increasing the volume of IIOC available, and the ease at which it is accessed and managed (Wortley & Smallbone, 2012). Clearly, both the volume of material and the number of individuals accessing the material pose a problem for the police services responsible for investigating these offences.

The Importance of Police Investigation
In Australia and New Zealand, all serious crime reported to the police, such as murder, rape or serious assault is investigated. However, crimes perceived as less important or lower risk such as vandalism for example, are not considered high priority as police do not have the resources to investigate all crimes thoroughly. Allocation of police resources is relevant to investigations of individuals suspected of downloading IIOC because the large number of suspected offences reported, have the potential to overwhelm police capacity. In order to contextualise police responses, we
begin by looking at five factors comprising the rationale for the investigation of these offences in the first instance.

First, accessing IIOC is an illegal activity which in itself predicates the investigation of the alleged crime to ensure compliance with the law. Second, IIOC may involve the direct physical victimisation of children and the perpetrators of this abuse should be held accountable. Third, accessing IIOC may signal a sexual interest in children and indicate that an individual may have engaged in contact offences, currently be conducting contact offences, or intending to commit contact offences. Fourth, exposure to IIOC may facilitate an interest in contact child sex offending that would have not otherwise occurred. Fifth, the distribution of IIOC may be unpleasant and distressing for the victims who are aware that indecent images of them exist, (with the ramifications for victims who are unaware still unclear).

Although, all five factors provide a rationale for investigating individuals suspected of accessing IIOC, different police services may consider certain factors as more important than others (as do the public) and their investigations may mirror this prioritisation. For example, more comprehensive investigations of IIOC image content, with an aim to identify potential victims, may be pursued within a police service that considers all IIOC offenders as potential contact offenders. In keeping with this theme, we will now discuss what is known about the content of IIOC in relation to risk.

Risk and IIOC Content

Examining the content of the IIOC material being accessed by IIOC offenders helps aid in our understanding of their relative risk to children potentially. The Internet Watch Foundation (2010) found 73% of victims depicted in IIOC on the internet were younger than 10 years old. Two thirds of the images involved penetrative sexual activity between the victim and an adult. Wolak and colleagues (2005a, 2005b) examined images that were in the possession of victim and an adult. Wo lak and colleagues (2005a, images involved penetrative sexual activity between the were younger than 10 years old. Two thirds of the found 73% of victims depicted in IIOC on the internet potentially. The Internet Watch Foundation (2010) accessing by IIOC offenders helps aid in our understanding of their relative risk to children

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Taylor and colleagues (2001) proposed three factors that are indicative of the level of severity within an IIOC collection: the size of the collection and the extent of its organisation; the presence of new and never seen before material (indicating the likelihood the offender has access to children, or is a producer of IIOC) and the age of the children (with IIOC containing younger children as more severe). Psychometrically, the level of severity depicted in images is often assessed by the COPINE scale, ranking the severity of IIOC on levels 1-10 (1 = indicative; 10 = sadistic/bestiality) (Taylor, Quayle & Holland, 2001). However, the global prevalence or ratio of images found within these levels is, to our knowledge, unknown in publically available sources.

Further, as Beech et al. (2008) highlight, although the COPINE establishes a framework for IIOC collections to be forensically analysed, there is no clear evidence of a relationship between risk and the type of images in the collection. Hence, the frequency of images found at each level may not reflect the risk posed by that individual (Beech et al., 2008). For example, a person fantasising and masturbating about non-sexual images of fully clothed children may not be any less dangerous than a person fantasising and masturbating about sadism or bestiality (Beech et al., 2008). Hence, further research is required in order for us to better understand the risk associated with image content and perceived level of severity. What is emerging however is our understanding of the risk associated with individuals accessing IIOC in regards to contact offending. This relationship will now be discussed.

The Relationship Between IIOC Offending and Contact Offending

Recent research has however focused on examining the critical relationship between individuals accessing IIOC and offline contact offences, and suggests an absence of a clear linear relationship. Seto, Hanson and Babchishin (2011) have addressed this issue by conducting the most comprehensive study to date. Their meta-analysis, comprising 21 different participant samples, indicated that approximately one in eight IIOC offenders have a history of contact sexual offending based on official records of arrests, charges or convictions. Specifically, the prevalence of contact sexual offending as indicated by official records was 12% with individual studies ranging from 0-43%, (this large range is likely to be attributed to sampling differences) (Wortley & Smallbone, 2012). In contrast, the prevalence of self-reported contact offences stood at 55%, which is consistent with suggestions that official records present conservative estimates of actual offending (Seto et al., 2011). Furthermore, many victims do not report abuse to authorities or, when they do, their allegations do not always result in police action.

In addition to the meta-analysis, nine follow-up studies were conducted by Seto and his colleagues (2011) which revealed only 4.6% of the IIOC offenders went on to commit new sexual offences during the 1.56 year follow-up. Of that group, 3.4% committed a new IIOC offence and 2% committed a new contact sexual
offence. Overall, these results indicate only a relatively small percentage of IIOC offenders are likely to engage in further online and offline offending. Even this might be an overestimate as the prioritisation of some offenders may mean that only the highest risk offenders are targeted.

Perhaps the most high risk group of IIOC offenders are those individuals with a history of contact offending. Seto and Eke (2008) found sexual recidivism rates for IIOC offenders with a history of contact offending were higher than the expected base rates for general sexual offenders (Harris & Hanson, 2004). Specifically, the recidivism rate for contact offenders stands at 14%, irrespective of IIOC use (Hanson & Bussiere, 1998, Hanson & Morton-Bourgon, 2005). This is much higher than the 4.6% recidivism rate found in the IIOC offender group. Acknowledging that not all new offences are detected and the observed recidivism rate is likely to increase over time, these results contradict the supposition that all IIOC offenders have a similar level of risk with regards to future contact offending (Seto et al., 2011).

There are however various factors that predict increased recidivism in IIOC offenders and general sex offenders (Seto & Eke, 2008). These factors include age, prior criminal history, substance use problems and relationship status (Seto & Eke, 2008). Research has implicated some unique risk factors for IIOC offenders, including self-admitted sexual interest in young adolescents and a larger ratio of IIOC content depicting boys than girls (Eke, Seto & Williams, 2011; Faust et al., 2009; Seto & Eke, 2005; Wakeling et al., 2011). Faust and colleagues (2009) identified a number of recidivism predictors in a follow-up study of 870 IIOC offenders. Relevant variables included lower education, being single, possessing sexual material depicting children aged 13-15 years and a history of prior treatment for sexual offending. These results support the view that offenders who are single, have hebephilic tendencies, possess more male versus female IIOC and have lower intelligence quotient with a history of sexual offending are considered higher risk in regards to reoffending (Faust et al., 2009). We will now consider the different types of individuals that access IIOC and whether, aside from demographic variables, the pattern of their behaviour can serve as a marker of risk.

Risk and Behavioural Typologies of IIOC Offenders

Various typologies of IIOC offenders have been posited (e.g., Hartman, Burgess & Lanning, 1984; Sullivan & Beech, 2004; Alexy et al., 2005). The most comprehensive typology was developed by Krone (2004) who placed the offenders on a continuum of increasing seriousness, and suggested within group variation reflected different types of IIOC behaviour. For example, those he labelled ‘producers’, ‘groomers’, and ‘physical abusers’ are considered to be higher risk than those he labelled ‘browsers’, ‘trawlers’ and ‘distributors’. However, as Wortley and Smallbone (2012) highlight, despite having face validity, these typologies have not been empirically validated. It is unclear if offenders graduate from lower to higher (more serious) levels of behaviour, remain at the same level or desist altogether (Wortley & Smallbone, 2012). For this reason, the percentage of offenders found within each typology group is unknown. Research has however indicated that lower level IIOC offenders who do not engage in contact offending (e.g. browsers) score higher in victim empathy, higher in sexual deviance, and lower in antisocial tendencies such as impulsivity, rejection of personal responsibility, substance abuse or antisocial behaviour (Babchishin et al., 2011). These lower level individuals are also more likely to have higher psychological self-control which may explain why, when compared with contact offenders they are have a lesser likelihood of reoffending (Seto et al., 2011).

Recently, the ‘groomers’ within the high risk group of IIOC offenders have received attention due to the expanding online communication platforms now available to children, resulting in an increased risk of potential harm being caused. ‘Groomers’, or ‘online solicitation’ offenders, cultivate online relationships with children and may send IIOC to them as part of the grooming process. These individuals may or may not be involved in wider networking with offenders, and may or may not be engaging in direct contact abuse (Krone, 2004).

A comprehensive study by Seto and his colleagues (2012) examined the characteristics and risk associated with these ‘groomers’, or solicitation offenders, in comparison with contact offenders and general IIOC offenders. Results indicated that solicitation offenders were the group most likely to be residing with a child, after the contact offenders, with the general IIOC offenders placing last. Further, solicitation offenders were more likely to have viewed IIOC than the contact offenders. They were also more likely to have unrelated and stranger victims than the contact offenders, but were less likely to have offended against a male. Solicitation offenders were also more likely to have problems in their capacity for relationship stability and less likely to have ever lived with a lover compared to the contact offenders.

Additional findings revealed that the solicitation offenders and general IIOC offenders had a higher level of education and did not differ in their prior criminal history, or on dynamic factors, such as antisociality compared to the contact offenders. However, the solicitation offenders were more likely to report hebephilic interests in pubescent children; with IIOC
Risk For Victims of IIOC

The impact on children represented within IIOC is varied. However, in many cases for the production of IIOC to occur a child must be taped or photographed being sexually abused (Wortley & Smallbone, 2012). With regards to distribution, the child is further violated when that record of abuse or images of them are re-accessed by various IIOC users. The impact on victims of the dissemination and viewing of IIOC material is difficult to distinguish from the impact of contact sexual abuse, as the contact abuse occurrence may obscure or overshadow the effects of merely being represented in IIOC (Wortley & Smallbone, 2012).

When considering the effects of contact sexual abuse generally, two-thirds of children in a study by Svedin and Back (2003) were found to have serious psychological or behavioural problems 17 months after disclosing the sexual abuse, as indicated by their scores on the Child Behaviour Checklist and the Youth Self Report scale (CBCL and YSR respectively; Achenbach & Rescorla, 2001). The most prevalent behavioural problems were obstinacy, irritability, contrariness, demands for attention, being opinionated, excessive use of profanity and the preference for being alone (Svedin & Back, 2003).

When considering the effect of IIOC production generally, victims can feel distress years later by their perceived compliance during the abuse, particularly if it is noncontact, for example undressing for the camera and smiling (Leonard, 2010). Victims represented in IIOC can also be distressed about the distribution and accessibility of the material for other, future IIOC users as it remains in circulation (Von Weiler, 2010). Victims can experience anxiety and fear surrounding the actual viewers of the images and their reasons for accessing them (Leonard, 2010; Von Weiler et al., 2010). For example, this statement was provided by a child victim of IIOC: “I won’t walk on the street on my own because I’m scared other paedophiles will follow me. I am scared because there are photos of me on the internet and paedophiles might have them” (CEOP, 2012, p.6). Further research exploring the effects of noncontact victims represented in IIOC with contact victims represented in IIOC is required, in order to decipher the true impact of IIOC on the children represented. With a better understanding of the effects of IIOC production and distribution, more accurate and informed risk analyses can take place. The current approaches to analysing risk will now be explored.

Police Approaches to Risk Assessment

Broadly speaking, there are three main approaches to risk assessment for predicting recidivism in the forensic arena: the clinical approach; the actuarial approach; and, more recently, the structured decision-making approach. These approaches will be considered in relation to police investigation of risk associated with IIOC offenders.

The clinical approach involves the assessor, for example a police officer, using clinical judgment to determine the level of risk an individual poses. Clinical judgment is informed by the combination of various sources of information such as interviews, case reports, and historical information that together create an estimate of associated risk for an individual. There have been a number of critiques of this approach (e.g., Grubin, 1998) that focus on the poor accuracy and reliability of clinical judgment. Indeed, a number of reviews indicate that, in many instances, clinical perceptions of risk are little better than chance (e.g., Douglas & Skeem, 2005). One reason for this may be that an assessor, or police officer, may unintentionally use subjective judgment in their assessment of risk. For example, they may take into consideration how likeable or attractive an individual is or, how affable they are and whether they fulfill the assessor’s pre-established expectations of how an offender.

Another factor that may influence clinical judgment of an assessor, specifically a police officer, may be the repugnant nature of the IIOC content seized and the evoked repulsion from the officer. For example, the depravity depicted in an IIOC collection may result in an offender being assessed as high risk due to the
socially unacceptable and disturbing nature of the material, despite there being little evidence to suggest high levels of image depravity corresponds with a high level of risk. In contrast to the clinical approach, actuarial approaches to prioritisation of risk remove clinical judgment altogether. Actuarial risk is calculated from large datasets and identifies factors that are empirically researched as predicting risk. One example that utilises an actuarial approach is the Static-99 (Hanson & Thornton, 1999). This tool specifically examines the risk of sexual reoffending in convicted sex offenders by assimilating the information from historical and fixed, or static factors. These static factors include: demographic information, official criminal history, the victim’s gender and the relationship between the victim and the offender. Another example of a risk assessment tool that utilises the actuarial approach in a similar way is the Risk Matrix 2000 (Thornton, 2007), a modification of the Static-99 (Hanson & Thornton, 1999). This tool was designed to assist police in assessing risk using their available information (e.g., age of offender, previous charges) versus information typically only available to corrective services (e.g., attitudes towards sex offending, empathy for victims).

The actuarial approach typically outperforms clinical judgment and is reasonably accurate in predicting risk (for a discussion see Beauregard & Mieczkowski, 2009). However, it is not without its limitations. There are problems with the low base rates of behaviour; in the cases of child-sex offenders, there are relatively few convictions or charges, meaning that if you simply say no one will re-offend you would usually be quite accurate.

Finally, we consider the third approach to risk assessment, structured decision-making, which has received particular consideration as of Structured decision-making typically involves analysing a variety of factors (e.g. mental status, attitudes towards victims) and using clinical judgment to determine if they are present or absent, to determine overall risk. An example of a structured decision-making tool related to sexual reoffending is the Sexual Violence Risk-20 (SVR-20, Barbaree, Langton, Blanchard & Boer, 2008) which contains 20 items assessing psychological adjustment, sex offences (e.g. density of offending) and future life-planning (Barbaree et al., (2008). The tool has some predictive validity for recidivism and has shown reasonable predictive accuracy, above that of the Static-99 in one study (De Vogel, De Ruiter, Van Beek & Mead, 2004).

There are advantages in using the structured decision-making approach. First, it provides an evidence base and audit trail for the decision-making process and second, it can be designed to ensure consistency of judgments. This allows for different people to assess the offender in the same coherent way, which will help the offender to be rehabilitated and support public protection. Importantly as has been stated earlier, by guiding the collection and assessment of relevant information, these techniques, typically outperform unstructured judgments, improving both test-retest and inter-rater reliability. Of course, actuarial systems have all the above advantages and also the potential to be automated.

Overall, these are advantages and disadvantages of each approach, however the representation of each approach within police services across the world is largely unknown and uninvestigated.

**Police Prioritisation of High Risk Offenders**

There is limited, reliable data concerning the usage of risk assessment tools by police for individuals suspected of downloading IIOC. In a study conducted by CEOP (2012), 21 of the 34 responding police forces across England and Wales reported using some form of risk assessment tool to prioritise investigations of IIOC offenders. The police services noted that they usually prioritised suspects with access to children. This emphasises the ad-hoc approach to risk assessment of IIOC offenders cross-globally and highlights the lacking consensual approach to risk analysis across regions and jurisdictions. The need for a global, formalised assessment is highlighted here in the CEOP (2012, p. 10) state, “the questions asked and answered in order to prioritise reports are subjective between different forces, teams and individual officers. Formalising a system of risk assessment would provide consistency and defensible decision making across, and within, police forces.”

At present, in the open literature, there is little evidence of an effective, clearway of identifying high risk IIOC offenders. One exception is a study by Wakeling, Howard and Barnett (2011) who examined the validity of two actuarial risk assessment tools on a group of sexual offenders convicted of internet offences across England and Wales. One was the Risk Matrix 2000 (Thornton, 2007), which is based on age, number of sex offences and number of previous non-sex offences, and the Offender Group Reconviction Scale 3 (Howard, Francis, Soothill, & Humphreys, 2009). Their sample contained 1,326 IIOC offenders at one year and were able to follow 994 of the previous 1,326 offenders two later. Proven reoffending was defined as any caution or conviction for a new offence. The tool outperformed the actuarial approach in a similar way is the Risk Matrix 2000 (Thornton, 2007), which is based on age, number of sex offences and number of previous non-sex offences, and the Offender Group Reconviction Scale 3 (Howard, Francis, Soothill, & Humphreys, 2009). Their sample contained 1,326 IIOC offenders at one year and were able to follow 994 of the previous 1,326 offenders two later. Proven reoffending was defined as any caution or conviction for a new offence. Reoffending rates were very low among this sample, and three quarters of sexual reoffending was internet related. The results indicate that all four tools had moderate to very good predictive accuracy (this was measured by Receiver Operating Characteristic statistics which were between .67 and .87).
The development of forensic risk assessment tools is increasing. Critically, a new tool prioritising individuals accessing IIOC according to risk of committing contact offences has recently been established (CEOP, 2012). The tool, entitled the Kent Internet Risk Assessment Tool (cited in CEOP, 2012) shares some features with the Matrix 2000 (e.g., using the number of previous sex offences to add to the understanding of risk) however at present it is not publically available and there is no publically available data to support its validity.

Overall, the utility of risk assessment tools has been demonstrated however the use and implementation of these tools in policing practice is yet to be established in a coherent, consensual way across states and jurisdictions across the world. There is limited research into the use of risk assessment tools within the IIOC offending population and so prioritisation of these offenders can result from a variety of clinical judgment, actuarial and decision-making approaches by police. Importantly, there is a possibility that risk assessment tools used by police, whether formal or informal, become self-fulfilling. As mentioned previously those identified as high-risk individuals are prioritised and found to be committing contact offences, and those identified as low risk offenders are not prioritised and thus not investigated or found to be committing offences. More extensive research examining the current formal and informal policing prioritisation methods would be beneficial to help identify the key gaps in practice that may be attributing to a potentially disorganised or invalid global approach to the investigation of IIOC offenders.

Conclusion

The volume of IIOC available to internet users is expanding, as are the number of individuals accessing the material. We have highlighted the ramifications of the production and distribution of IIOC for child victims. We have identified the several gaps in the literature regarding the current knowledge of policing practices and the investigation of IIOC. We can conclude that there is seemingly no global, formal prioritisation of risk within policing departments across the globe. Further, there is a lack of consensus as to what characterises a risky individual and the method in which this risk is assessed. The psychometric properties of the existing risk assessment tools are not yet well-established but they do provide a foundation to help us close the gap between the current police practices and the evidence available to us on the emerging profile of high and low risk IIOC offenders. However, situational factors such as transitory access to vulnerable children will make this task difficult. In assessing high and low risk offenders as accurately as is possible (and acknowledging the limitations of risk assessment) police services can streamline their investigative process, avoid wasting resources and potentially identify more child victims that are being subjected to abuse and otherwise undetected.

The emerging subgroups, within the IIOC offending population, serve to confuse the matter further and it is possible that different subgroups present differently according to risk, however this is largely unclear. The need for research within this area is apparent and the implications of this paper are far reaching. The need for cohesion across the disciplines of law enforcement, psychology and criminology is imperative for us to successfully protect children.

References


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