



The Internet and child sexual offending: A criminological review

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ABSTRACT

This paper outlines the current literature on what is known about the processes by which individuals utilize the Internet for child sexual abuse. First, three ways in which the Internet is utilized are outlined: (1) by dissemination of sexually abusive images of children for personal and/or commercial reasons; (2) by communication with other individuals with a sexual interest in children; and (3) by maintaining and developing online pedophilic networks. Second, content and availability of abusive images are described, and the difficulties faced by criminal justice agencies in both the definition of abusive images and their prohibition is discussed. Third, the potential for offenders to 'cross-over' from online offenses to contact sexual victimization of children is examined and placed within a context of various Internet offender typologies that have been developed. Finally, implications of this body of research for law and public policy are considered.

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1. Introduction

The sexual abuse of children is a significant global problem and its prevention is a major concern for criminal justice agencies. Over the last two decades there has been a considerable increase in professional and public awareness of the use of the Internet in the commission of child sexual abuse, whether it be the consumption of abusive images of children or for access and grooming of victims in the commission of contact sexual assaults. This issue continues to present new challenges for traditional policing and legislative systems.

According to the Internet World Stats website ([Internet World Stats, 17 March 2008](#)), global usage of the Internet recently topped 1.3 billion users, with 38.7% of these users 'logging-on' in Asia, 18.0% in Europe and 20.4% in North America, as well as significant growth in Internet use in Africa, the Middle East, and Latin America. The Internet combines global communication with a range of resources, such as E-mail and the World Wide Web, and is on the way to becoming the world's library ([Mars, 2001](#)). The level of sophistication with which the Internet can be utilized is rapidly increasing. The Internet is evolving from fixed personal computer-based access to third-generation (3G) mobile phone technology, offering high-speed Internet access, video conferencing and digital audio–visual recording technology, in the form of mobile, hand-held devices ([O'Connell, 2004](#)).

Digital information contained within the Internet is not located or stored at one single point and is not administered by any one person or group, and so by its nature is uncontrollable by a single regulatory body ([Arnaldo, 2001](#)). As such, the Internet has a number of uses and potential, and very real, misuses. [Durkin \(1997\)](#) proposes three ways in which the Internet can be utilized by sex offenders: (1) to disseminate images for personal and/or commercial reasons; (2) to establish and engage in social networks with other individuals who have a sexual interest in children; and (3) to engage in inappropriate sexual communication with children and/or to locate children to abuse. In addition, [Lanning \(2001\)](#) suggests that abusive images downloaded from the Internet may be used to desensitize and/or lower inhibitions in an offender or victim prior to or during an offense. It is worth noting that the Internet might also serve as a method for covertly breaking probation restrictions regarding access to children for those individuals who already have convictions for child molestation ([Durkin, 1997; Hernandez, 2000](#)).

The aim of this review is to examine the extant criminological literature on the use of abusive images of children on the Internet and those who access it, focusing primarily on the United States (U.S.) and the United Kingdom (U.K.), as well as discussing the provisions of the United Nations (U.N.) and Interpol. Here, we will examine the various ways in which abusive images can be disseminated using Internet technologies, and discuss the key difficulties that law-enforcement agencies face when dealing with sexually abusive behavior online. We then describe the dangers of these offenders crossing-over from 'online' to contact sexual offending and suggest that this could be a significant problem within the Internet offending population and a serious risk to child protection. We discuss the various typologies of Internet offenders in terms of their motivations towards offending and the ways in which these different types of offenders utilize the Internet in meeting these goals. Finally, we discuss implications that Internet offender research has in terms of law and public policy.

2. Image dissemination

In this section we will examine the law regarding abusive images on the Internet, problems in defining an abusive image, the availability and the content of these images, and the generation and status of pseudo (non-real) images.

2.1. Abusive images of children and the law

The criminalization of abusive images of children in the United States is governed by the Prosecutorial Remedies and Other Tools to end the Exploitation of Children Today (PROTECT) Act 2003. The revised statute states that:

"...it is a crime to possess, manufacture or distribute pornography containing visual depictions of (a) a real child engaging in sexual acts or (b) a digital image, computer image, or computer generated image that is, or is indistinguishable from, that of a minor engaged in sexually explicit conduct". (18 U.S. Code § 2256(8) (B) (as amended))."

[Brenner \(2004\)](#) also describes a new offense created by the Act, one of "producing, receiving, possessing or manufacturing obscene child pornography" (18 U.S. Code § 1466A). The PROTECT Act also provides the following legislation: (1) increased penalties for individuals convicted of child pornography offenses, with sentencing options of 15–20 years imprisonment, even for first-time offenders; (2) lesser authority for the judiciary to reduce sentence length; and (3) revised and strengthened legislation on 'virtual child pornography' ([U.S. Department of Justice, 2003](#)). In the U.K. the principal legislation outlawing abusive images of children can be found in the Protection of Children Act 1978 and the Sexual Offences Act 2003. Section 1 of the Protection of Children Act (as amended) makes it an offense to make, take, distribute, show, or be in possession with the intention to distribute or show, an indecent image of a child ([Gillespie, 2005](#)). In the Criminal Justice Act 1988 the offense of possessing indecent images of a child and later pseudo-photographs, where prohibited by Section 84 of the Criminal Justice and Public Order Act 1994, has been added. Sections 48–50 of the Sexual Offences Act are built on the Protection of Children Act, where there are three new offenses relating to abusive images of children: (1) causing or inciting a child to become involved in pornography; (2) controlling a child involved in pornography; and/or (3) arranging or facilitating child pornography. These three offenses are punishable by up to 14 years imprisonment. The Sexual Offences Act also further strengthens the laws regarding showing pornography to a minor, making it a criminal offense to show any obscene image (not only in photographic form) to a child ([Gillespie, 2005](#)).

Recently, the International Center for Missing and Exploited Children (ICMEC) proposed a legislative model relevant to the sexual exploitation of children using the Internet, based on their research into legislation from the 186 Interpol member states (ICMEC, 2006). The ICMEC specifically sought to examine whether or not the legislature of each member country included: (1) specific regard to child pornography; (2) a definition of child pornography; (3) criminalization of computer-facilitated offenses; (4) criminalization of child pornography possession, regardless of any intent to distribute; and (5) a requirement for Internet Service Providers (ISPs) to report suspected child pornography to relevant mandated agencies. The model aims to tighten definitions of 'child pornography', improve quality of the descriptions of the specific criminal offenses involved, and also aims to establish requirements for the mandatory reporting of suspected activity involving sexually abusive behaviors on the Internet for professionals, law-enforcement agencies, and ISPs. It was found that 95 countries had no legislation at all relating to child pornography, and that only five countries (Australia, Belgium, France, South Africa, and the U.S.) met all of the criteria set out in the model. Twenty-three countries met all criteria except the reporting requirements for ISPs, including Canada, Germany, the Netherlands, Panama, and the U.K., though these five each have non-mandatory reporting procedures in place for suspected child pornography sites.

The ICMEC model represents an excellent opportunity to consolidate legislation on Internet sexual abuse on a global scale and ensure that investigation and prosecution of those who victimize children in this way is comprehensive and consistent. In outlining these issues it provides legislators with an exact framework of where the gaps in legislation may lie and also how these gaps may be filled. However, it does represent a punitive rather than preventative approach and takes a 'hard-line' stance in that the authors of the ICMEC suggest that all violations of the legislation should carry strict sentences that would guarantee a deterrent effect. In addition to this, they suggest further penalties for the presence of aggravating factors such as persistence of offending, levels of violence in the images, the potential threat or risk the individual would pose on release, and any links to organized criminal activity. However, how these aggravating factors are to be consistently measured is not made clear. For example, how does one assess the potential risk that an individual downloading images of children for sexual purposes would pose? This issue is only beginning to be subjected to social science enquiry. Given the difficulties present in detecting viewers of abusive images it is also difficult to say for sure whether the more sophisticated Internet offender would consider tougher sentencing a deterrent, given the relative anonymity and the lack of formal regulation of the Internet, coupled with the problem that security measures that can be implemented to ensure detection are extremely difficult. The authors of the ICMEC model also do not make any suggestions about exactly what the 'further penalties' should be. Furthermore, the authors do not discuss other sentencing options, such as community sentencing, where this may be appropriate, or any discussion of what, if any, therapeutic intervention should take place.

2.2. *Defining whether an image is pornographic*

Whether an image is pornographic is a complex and difficult issue as legal definitions differ across jurisdictions and national boundaries (Healy, 1997). Definitions also differ between those used in legal and academic contexts and the issue is further confused by the lack of a clear legal definition of what constitutes a child as the legal age of sexual consent in many countries varies.

There has also been much debate as to the appropriateness of the term 'child pornography'. Many professionals within the field argue that the term trivializes the material and lends credence and legitimacy to the meaning that offenders bring to the phrase, while also drawing unwarranted comparison to adult pornography and thus minimizing the material's inherently abusive nature (Tate, 1992; Edwards, 2000; Taylor & Quayle, 2003). Tate (1992) suggests that images of an abusive nature are "not pornography in any real sense, simply the evidence of serious sexual assaults on young children" (p. 203). However, Taylor and Quayle (2003) note that the term 'child pornography' carries with it an international meaning and is readily recognizable. For example, U.S. legislature explicitly uses the term child pornography (18 US Code § 1466A), the U.K. Sexual Offences Act 2003 refers to 'a child involved in pornography' and the United Nations Convention on the Rights of the Child (1990) describes the 'use of children in pornographic performances and materials'.

Academic definitions seek to emphasize the fact that the production of each image necessarily requires the exploitation of a child, or children, and such an image is evidence of a severe sexual offense (Taylor & Quayle, 2003). Edwards (2000) defines child pornography as "a record of the systematic rape, abuse and torture of children on film and photography and other electronic means" (p.1). There is also an emphasis on the image as a permanent record and that the subsequent distribution of an abusive image victimizes the child concerned each and every time the image is viewed for a sexual purpose. Lanning (1984) suggests that there is evidence that children recognize permanency of an image and that, although recovering victims of sexual abuse can one day hope for a 'fresh start', there is no way of hiding from a permanent image.

2.3. *Availability of abusive images of children*

The total amount of abusive images of children available on the Internet at any one time is difficult to quantify due to the inherently dynamic nature of the system and the covert nature of the material (Taylor, 1999; Taylor & Quayle, 2003). Taylor and Quayle (2006) suggest that the steady flow of court cases in the U.K. and the U.S. involving abusive images suggests a relatively high level of activity by users seemingly insensitive to the risk of detection. The Internet Watch Foundation (IWF), the U.K. 's Internet watchdog, reported that in 2005 the number of websites reported by the organization to the criminal justice agencies for potential criminal content, including those containing abusive images of children, rose by 78% from 2004 to 2005 (IWF, 2006). In total 6128 sites were reported to the IWF for investigation, with the majority being hosted in the U.S. (40%) and Russia (28%). Two hundred and eleven Internet newsgroups were listed as being potentially illegal with additional notices served to ISPs to remove 12,777 images from a further 226 newsgroups.

A comprehensive reference database of abusive images of children has, until recently, been maintained by the Combating Pedophile Information Networks in Europe (COPINE) Project research team at University College Cork, Ireland. Their initial study of prevalence found that of the 40,000 newsgroups that they investigated 2800 contained a total of 6058 abusive images of children, two-thirds of which could be considered 'child erotica' and one-third of which could be considered pornographic (Irish Department of Equality, Justice, and Law Reform, 1998). In addition to this, COPINE also investigated a single day's content on two IRC networks — DALnet and Undernet. A search of DALnet found 31 channels whose title related to child sex with a total of 281 users and a search of Undernet revealed 24 channels with a total of 237 users. Holland (2005) reported that (by May 2004) the COPINE database contained over 700,000 abusive images and noted that it would still be naïve to consider this an exhaustive collection as many more images may still be held in private collections, the sizes of which remain unknown. This database has now been subsumed into the Interpol Child Abuse Image Database (ICAID), established in 2001. As of 2005 the ICAID contained images involving over 20,000 individual children and has led to the subsequent identification of over 350 children (Jones & Skogrand, 2005).

One of the most popular methods of accessing and trading abusive images on the Internet is through Internet Bulletin Board Systems. In this process images are uploaded to servers under a specific newsgroup heading, making them available to other users of that newsgroup worldwide. Images can also be made available to other users globally through peer-to-peer (p2p) file sharing software programs such as Limewire or Kazaa are uploaded to a dedicated server and made available via web-links on a website on the World Wide Web. Similarly, a user can share files on their computer using an FTP (File Transfer Protocol) server that allows other web users direct access to specified areas of a user's computer. Images can be exchanged directly and privately between individuals using Internet Relay Chat (IRC) programs such as ICQ ('I Seek You'), Microsoft's MSN Messenger, or by use of 'Fserver' software, which allows an IRC user to make data on their computer available to other IRC users via a shared folder without the need for interaction between the individuals concerned. Images can also be exchanged privately through the direct exchange of e-mails, to which data files can be attached.

Carr (2004) found that the majority of a sample of Internet offenders (78%) used IRC software to obtain images, followed by the World Wide Web (42%), newsgroups (39%), email (30%), ICQ (21%), or some other method (4%). Carr also reports that the most of the sample (86%) had stored their images on their hard drive, with floppy disks (29%) and CD-ROMs (14%) also proving popular storage options.¹ Digital images and videos can be downloaded directly and saved as low-size, high-quality image files (such as JPEG, GIF, or BMP files²) on digital storage media such as computer hard drives, CD-ROM, floppy discs, memory sticks and so on. These digital data files can then be reproduced endlessly without compromising the quality of the image. Downloaded images can be viewed on screen or printed thus eliminating the need for images to be commercially developed, further adding to the perceived security of the practice (Quayle & Taylor, 2002a).

Wolak, Finkelhor, and Mitchell (2005) reported that only 20% of their sample used sophisticated measures to hide images on their computer, such as: password protection (17%), encryption (6%), file servers (4%), evidence-eliminating software (3%), remote storage systems (2%), and partitioned drives (2%). Similarly, Carr (2004) found that 75% of their sample had taken no security measures to protect their collection and only a small number of offenders had applied a password system (8%), encrypted their data (6%), or even saved the data to an ambiguously named folder (6%).

2.4. Content of image collections

Abusive images of children available on the Internet range from everyday or 'accidental' naked images of children to depictions of gross acts of indecency against a child or children, such as penetrative sexual intercourse, sadistic acts of brutality, and bestiality, with victims varying in age from babies to teenagers. Collections that run into thousands of images appear to be relatively frequent, yet it is unclear why these individuals engage in such extensive collecting behavior that clearly goes beyond just sexual stimulation (Taylor & Quayle, 2006). Taylor, Holland, and Quayle (2001) note that images regularly come as part of a series and highlight the differences between thematic and narrative series. *Thematic* series are those grouped by a similar theme relating to particular scenes or acts while *narrative* series are sequences of pictures relating to a single scene and depicting a specific child (or children) or act. Taylor et al. (2001) found that filling in gaps in narrative series of images was of great importance in terms of reinforcing an individual's behavior, personalizing the victim, and in terms of the structure of the collection itself. Collecting a series was often as important to an individual as sexual arousal to children's images and for a number of men pleasure is also gained from the offline categorizing of pictures, often regardless of whether the material was for personal use or for trading (Quayle & Taylor, 2002b). Jones (2003) cites a number of examples of well-known narrative series on the Internet (e.g., Hel-lo, KG, KX), and emphasized the worrying ease at which these series can be found. The 'Hel-lo'³ series of the late 1980's depicts Helena, aged around seven or eight years, who became the victim of a series of abusive images depicting her with both adults and other children. Jones also cited the 'KG' (Kindergarten) series, mainly depicting female victims approximately between the ages of three and six years, and its related 'KX' series — a more explicit version involving sexual acts between adults and children.

Taylor et al. (2001) suggest that three factors denote severity within a collection: (1) size of the collection and the extent of its organization; (2) presence of new and/or private material, indicating the likelihood that the offender has access to (or is) a

¹ These numbers do not add up to 100% as some individuals stored images on several sources.

² These are standard computer image file types: Joint Picture Expert Group (JPEG), Graphic Interchange Format (GIF) and Bitmap (BMP).

³ A juxtaposition of the words 'Helena' and 'Lolita'.

producer; and (3) the age of the children depicted in the collection. As for the latter point there is growing evidence that suggests children in more recent images are younger (Taylor, 1999). It is thought that very young children may be especially vulnerable to becoming involved in the production of abusive images as they may be less able than an older child to judge inappropriateness of sexual contact between adults and children and they may not show any awareness of the sexual nature of what they may be being asked to do, for example, a request to undress (Taylor & Quayle, 2003). The younger the victim the greater the imbalance of power between the child and the producer and, in terms of their communicative ability, the more difficult it may be for the child to disclose or articulate their abuse (Taylor & Quayle, 2003).

Lanning (2001) suggests a distinction between types of material available as commercial and homemade. *Commercial material* is intended for sale while *homemade material* is created for a personal interest. Lanning explains that the quality of homemade material is often of a highly professional quality. Availability and cost of digital imaging technology (such as digital cameras and camcorders) has allowed for the low-cost but high-standard production of pornography without the need for professional development, placing it within the reach of the general public (Barron & Kimmel, 2000). Lanning further highlights distinction in the types of abusive images: *technical* materials are images depicting 15, 16 or 17 year old children in an adult pornography context, and *simulated* materials are images depicting adults over 18 years of age dressed and/or placed in contexts which are designed to appeal to individuals with a sexual interest in children.

There are two main typologies of image collections in Europe: the COPINE typology (Taylor et al., 2001) and a related British legal typology set out by the U.K. 's Sentencing Advisory Panel (SAP, 2002). These are described in Table 1.

It can be seen from Table 1 that both typologies are constructed on the basis of a continuum of increasing deliberate sexual victimization of children. The main differences between the two typologies is that the SAP typology groups the non-sexual activity nude or erotic posed pictures together into a single group and does not contain COPINE level one, or *indicative*, types of material. Indicative images are those that depict children clothed or in their underwear and are available from legal sources, such as commercial magazines or from everyday pictures of children playing. The reason that these images are not included in the SAP typology is because they would not be considered to be indecent under legal definitions in the U.K. and therefore would not be used in sentencing decisions. However, it is widely acknowledged that there is a potential for a wide variety of materials to contain sexual qualities for adults with a sexual attraction to children that may not necessarily legally qualify as obscene or to have sexual content (Lanning, 2001; Taylor et al., 2001). The SAP typology is also practically applied by criminal justice agencies outside the U.K., such as in Australia (Krone, 2005).

In the U.S. decisions are based on a standard of image type set out in the case of New York v. Ferber, 458 US 747 (1982) on which much of the legislation criminalizing abusive images of children, both off and on the Internet, is based (Brenner, 2004). The Ferber case held that pornography involving children could be prohibited regardless of whether or not they could be considered obscene under the provisions of the Miller vs. California (1973) case, which set the standard of what constituted an obscene image, due to the compelling interest of the protection of children from sexual exploitation (Mota, 2002).

Although the COPINE and SAP typologies set out a framework by which pedophile collections can be forensically analyzed there is no evidence of a relationship between the offender and the typology of images in their collection. Sentencing individuals based upon the frequency of images for each level on the SAP typology found within their collection, for example, may not

Table 1
A description of the SAP And COPINE typologies of pedophile picture collections

SAP		COPINE	
Level	Description	Level	Description
1	Images depicting nude or erotic posing, with no sexual activity	1	<i>Indicative</i> – Non-erotic and non-sexualised pictures showing children in their underwear, swimming costumes, etc. from either commercial sources or family albums; pictures of children playing in normal settings, in which the context or organization of pictures by the collector indicates inappropriateness.
		2	<i>Nudist</i> – Pictures of naked or semi-naked children in appropriate nudist settings, and from legitimate sources.
		3	<i>Erotica</i> – Surreptitiously taken photographs of children in play areas or other safe environments showing either underwear or varying degrees of nakedness.
		4	<i>Posing</i> – Deliberately posed pictures of children fully, partially clothed or naked (where the amount, context and organization suggests sexual interest).
		5	<i>Erotic posing</i> – Deliberately posed pictures of fully, partially clothed or naked children in sexualized or provocative poses.
		6	<i>Explicit erotic posing</i> – Emphasizing genital areas where the child is either naked, partially or fully clothed.
2	Sexual activity amongst children, or solo masturbation by a child	7	<i>Explicit sexual activity</i> – Involves touching, mutual and self-masturbation, oral sex and intercourse by child, not involving an adult.
3	Non-penetrative sexual activity between adult(s) and child(ren)	8	<i>Assault</i> – Pictures of children being subject to a sexual assault, involving digital touching, involving an adult.
4	Penetrative sexual activity between adult (s) and child(ren)	9	<i>Gross assault</i> – Grossly obscene pictures of sexual assault, involving penetrative sex, masturbation or oral sex involving an adult.
5	Sadism or bestiality	10	<i>Sadistic/bestiality</i> – Either (a) pictures showing a child being tied, bound, beaten, whipped or otherwise subject to something that implies pain, or (b) pictures where an animal is involved in some form of sexual behavior with a child.

Source: Sentencing Advisory Panel (2002); Taylor, Holland, and Quayle (2001).

accurately reflect the dangerousness or risk of the individual involved. Likewise, there is no evidence to suggest that an offender who fantasizes and masturbates over non-sexual images of clothed children obtained from legal sources would be any less dangerous than an offender who fantasized and masturbated over images of children involved in acts of sadism or bestiality. However if, as Taylor and Quayle (2003) recommend, we place the emphasis on those children within the images and the impact these images have on them, then it would seem entirely appropriate that an offender with higher-level images would receive a longer sentence.

The usefulness of these typologies to the criminal justice authorities continues to be an issue of much debate within the academic and criminal justice spheres with regard to those found to be accessing and/or distributing abusive images of children.

2.5. Generation of pseudo-images

Abusive images of children can also be manifested in the form of non-real or *pseudo-images*, including lifelike *virtual* abusive images without the use of actual children at all (Healy, 1997), and/or those that mix different aspects and/or combinations of separate pictures to suit the user's preferences (Taylor, 1999; Taylor & Quayle, 2003). Four typical methods are used in the creation of pseudo-images: (1) an image of a child is inappropriately sexualized (e.g., clothes removed); (2) aspects of a sexualized image of an adult is given child-like qualities (e.g., reduction in breast size, removal of pubic hair); (3) an image of a child is superimposed onto a sexualized picture of an adult or child (e.g., a child holding a toy can be superimposed in a way that makes it appear that the child is holding a man's penis); or (4) a montage of abusive images can be created (Taylor, 1999; Taylor et al., 2001).

Pseudo-images are prohibited in most Western countries as it is argued that the images represent the sexual victimization of a child and should therefore be treated as such (Taylor et al., 2001). However, in the U.S. there has been a long-running legal battle over the application of First Amendment rights in cyberspace and the subsequent constitutional legality of laws prohibiting pseudo-images. The U.S. government passed an act of Congress, the 1996 Child Pornography Prevention Act (CPPA), which aimed to further protect children from online sexual exploitation, which expanded the federal ban on child pornography to include computer-generated images (Mota, 2002). The CPPA criminalized sexually explicit depictions, including any photograph, film, video or computer-generated image or picture, that appear to be of minors, and visual depictions that are promoted in such a way that suggests that they contain sexually explicit depictions of minors (Mota, 2002). However, in 2002 a U.S. Supreme Court decision (*Ashcroft vs. Free Speech Coalition*, 2002) agreed that the criminalization of 'virtual child pornography' under the CPPA was unconstitutional, after it was argued that no real children are harmed. Therefore, based on the law, prohibiting virtual images could not be justified under the premise of the protection of children from sexual harm. The court agreed that the protection of children from sexual harm was important and that the sexual exploitation of children through the creation of sexually abusive images was already covered by other legislation passed by Congress to protect children from sexual harm. However, legislation criminalizing virtual images was quickly restored when the U.S. Congress passed the Prosecutorial Remedies and Other Tools to end the Exploitation of Children Today (PROTECT) Act 2003, again criminalizing both abusive images involving real children and virtual and pseudo-images (Brenner, 2004).

In the next section we will examine how the Internet is used for pedophile networking.

3. Pedophile networking

Pedophile networks by their very nature have typically operated covertly and the Internet, with its perceived anonymity, has to some extent allowed these networks to develop relatively unchecked (Akdeniz, 1999). Although it may be difficult to see why an individual might come to be socialized within pedophile virtual communities, it would be likely that the majority of users who discover abusive images of children on the Internet would probably already have a sexual interest in children and therefore share many of the attitudes and ethics of the community (Jenkins, 2001). A number of pedophile organizations operate throughout the world, such as the North American Man-Boy Love Association (NAMBLA), the U.K. Pedophile Information Network (PIE), the Norwegian Pedophile Group (NAFP), the Netherlands Association for Sexual Reform, and the Belgian Studigroep Pedophilie (De Young, 1988). These larger groups typically advocate liberalization of laws regarding sex and often lobby for their social and political objectives (De Young, 1988).

There have also been a number of online pedophile trading networks that have come to public attention. One such group was the 'WONderland [sic] Club', a 300-member organization where entry membership was granted on the basis that the individual provided the club with a catalog of over 10,000 sexually abusive images of children. In 1996, 16 members of the 'Orchid Club', an online pedophile network from the U.S. and elsewhere, were indicted in San José (Quayle & Taylor, 2001) after one member of the group set up an online web-feed using a digital camera and transmitted live images of abuse of a child to other members in the U.S., Europe, and Australia.

Belanger et al. (1984) described social organizational aspects of child molestation rings that also appear to be applicable to pedophile communities that have developed on the Internet. The description of their *syndicated ring* describes a well-structured group with various managerial processes involving the 'recruitment' of victims, the production and distribution of pornography, and the establishment of an extensive network of 'customers', although abusive images are often traded or exchanged between pedophiles rather than sold (Estes, 2001). Such components are also observed in Internet pedophile networks, including a currency of trade (i.e., pictures, videos, and children themselves), systems of trade, an organized mechanism of circulation (i.e., newsgroups, email etc.), and self-regulatory mechanisms for the inclusion and exclusion of members (such as the 10,000+ image entry level for the WONderland Club).

Jenkins (2001) quotes a number of posts to bulletin boards of users who describe their relief, and even awe, at finding solace in these communities. Durkin (1997) quotes the FAQ page of a Usenet newsgroup called alt.support.boy-lovers, which described the group as

“... [a] forum for males to discuss their feelings towards boys. It is intended to provide a sense of peer support for those having difficulties with their feelings, for boy-lovers who feel isolated with their orientation [sic]” (p. 15).

Durkin suggests that the overall image of these groups as a projection of ‘boy-lovers’ rather than pedophiles or deviants may promote a positive self-concept despite the high levels of social condemnation associated with pedophilia. As well as a shared interest in the material there is also a sense that group identity is also acquired through the prevailing sense of danger and the subsequent intense paranoia that pervades the group, as members become a shared part of a clandestine world, where safety, self-defense, and discretion is paramount (Jenkins, 2001).

O’Connell (2001) suggests that different members of online pedophile networks act out different roles, based on her observations of Usenet newsgroups, which can broadly be categorized as either *promoters* or *detractors*. Roles within the promoter category include *infrastructure advice/coordinators*, who orchestrate the group’s activities and provide answers to common questions for ‘newbies’ (new subscribers to the network); *literature reviewers*, who give detailed information regarding the content of online and offline pedophile related publications; *story/fantasy generators*, who directly engage in the production of fantasy material, posting accounts of sexual interactions between adults and children; *support people*, detailing the positive aspects of adult–child sexual interest and espousing the supposed rights of ‘boy’ and ‘girl’ lovers; and *posters and traders of images*, who engage in posting and requesting images of indicative and abusive images of children. Roles within the detractor category include *reactionary* individuals who respond aggressively and repugnantly against pedophilic content and *register propagators* who post personal details about known pedophiles in a bid to eradicate their anonymity. Paradoxically, although detractors oppose pedophile activity, they may actually accentuate cohesiveness and support within a targeted group and consequently may encourage and develop pedophile activity rather than prevent it (O’Connell, 2001).

The behavioral move from Internet offending to contact sexual offenses against children is often termed ‘cross-over’. In the next section we will discuss the evidence for and against the notion that those who use the Internet to view sexually abusive images of children are at heightened risk of ‘crossing-over’ to commit contact sexual offenses against children.

4. Cross-over

It has been found that a number of individuals arrested for accessing and collecting abusive images of children will also be found to be abusing children (Wellard, 2001; Dobson, 2003). Conversely, a number of offenders have reported using pornography, though not necessarily from the Internet, either as part of their preparation for an offense, or during an offense (Condrón & Nutter, 1988; Nutter & Kearn, 1993). Findings from the 2000 U.S. National Online Victimization Study (Finkelhor, Mitchell, & Wolak, 2000) found that 20% of children aged 10–17 years surveyed had received a sexual solicitation in the previous year and 3% received an aggressive sexual solicitation, which suggests that Internet offenders are not all passively viewing or trading images.

4.1. The role of child pornography in the etiology of child sexual abuse

For a number of decades there has been extensive debate over the role of viewing pornography in the etiology of sexual offending. After a comprehensive review, Marshall (2000) concluded that there is no identified causal link between viewing pornography and sexual offending behavior, but that there is “some truth to both the proposition that pornography use directly instigates sexual offending and that it conveys messages that create pro-offending attitudes” (p. 73) and that it may “enhance the cognitive distortions of sexual offenders...such as the child is cooperative or even enthusiastic, the child admires the offender, the offender is in control” (Marshall, 2000, p. 72).

Pornography may also create the false impression in the offender that the wealth of material depicting abuse of children indicates that this is a common practice, and so reduces inhibitions to abuse (e.g., Wyre, 1992; Eldridge, 2000; Print & Morrison, 2000). Child pornography is also hypothesized to serve as a reinforcer for both sexual attraction to children and the self-justification process (Tate, 1990). This reinforcement is particularly potent due to the immediate and interactive nature of the feedback received (Bromberg, 1996). However, Itzin (2002) argues that research so consistently produces correlations between pornography and harm that pornography should be re-conceptualized as “instrumentally causal [though not solely causal] in the etiology of sex offending” (p. 21).

Calder (2004) notes that the move from viewing abusive images of children on the Internet to contact offending is a massive one, however the nature the material itself suggests some likelihood that it is a step desired by the individual. Sullivan and Beech (2004) suggest that not every offender who masturbates to indecent images of children will inevitably progress to contact sexual offenses against children. However, they suggest that the subjective risk of them doing so would be increased as their engagement in fantasy and the subsequent conditional pairing of this with masturbation and orgasm would lower their inhibitions for doing so. We should note here that we do not wish to underestimate the fact that viewing abusive images of children alone is not a victimless crime and represents the record of a sexual offense against a child while creating a market that necessitates further sexual victimization of children.

4.2. The prevalence of cross-over

There are two methods in which the prevalence of cross-over can be measured, both with their strengths and weaknesses. The first method is by examining known sexual offenses, such as arrests and convictions, committed by an individual. Though this gives a definitive level of past sexually abusive behaviors it does not allow for the fact that the individual may have a comprehensive history of undetected sexually deviant and/or abusive behavior. In their U.S. based National Juvenile Online Victimization Study, Wolak et al. (2005) found that of a sample of 429 possessors of abusive images, 11% has known previous sexual offenses. In the same study the authors looked at 241 legal cases involving possessors of abusive images of children and found that 55% could be deemed 'dual offenders', 40% had committed a contact sexual offense against a child, and a further 15% had attempted to commit a contact sexual offense against a child. These data led the authors to suggest that there "may be a correlation between simple possession and committed sexual abuse of a child" (p. 2). Similarly, in their study of the sexual recidivism of Internet offenders, Seto and Eke (2005) reported that 76 of their sample of 201 adult male Internet offenders had known previous contact sexual offenses against children. In their convenience sample of print and news reports of 205 Internet offenders, Alexy, Burgess, and Baker (2005) found that 19% both traded and collected abusive images of children while simultaneously manipulating children online for offline offenses. The authors compared to 59% who solely trafficked and collected abusive images and 22% who were using the Internet solely to manipulate children for contact offenses. However, it was not made clear in this study whether the offenders had crossed from online to offline offending or vice versa. The method of using known offenses is further confused by the findings of Osborn and Beech (2006) who found very low levels of recidivism in general for Internet offenders. In considering the suitability of the Risk Matrix 2000 (Thornton et al., 2003), an actuarial risk assessment tool, they found that of a sample of 74 post-treatment males convicted for Internet offenses in the U.K. none had been re-convicted within a four year follow up.

The second method for obtaining evidence of cross-over is to investigate self-admissions of contact offenses. This method attempts to fill in the unknown blanks within an individual's sexually abusive history. However, this method leaves open the opportunity for offenders to either underestimate or overestimate the level of their offending, often with very few ways in which to verify the accuracy of the data. This method was adopted by Hernandez (2000), who investigated self-reported admissions of contact offending in a sample of 62 offenders incarcerated for Internet-related sexual offenses in the U.S. He found that prior to treatment, 42% were known to be contact offenders with a total of 55 victims. However, following treatment, 76% reported previous contact offenses against an additional 1379 victims. In a subsequent analysis, Hernandez removed 'traveler' offenders (who had groomed victims online for contact offenses) and found that of the 55 remaining 'child pornography' offenders 80% reported previous contact offenses. Hernandez (2006) has since reviewed these findings with a second group of 155 adult males convicted of offenses relating to abusive images of children. At pre-treatment, 24% of this sample had known previous contact offenses against 75 victims, a rate which increased to 85% post-treatment and a total of 1702 victims. The author admitted that these are simply heuristic observations and as such form the basis for hypothesis testing requiring more rigorous testing. However, it does suggest the possibility that reliance on known contact offenses may vastly underestimate the levels of cross-over in the population.

Evidence suggests that there could be scope for the use of a combination of both methods as part of a comprehensive assessment of the contact sexual offense histories of Internet offenders. However, there would need to be further refinement of the methods for collecting self-report data that could ensure a sufficient level of fact and accuracy. One possible way to do this may be through the use of polygraph testing. Grubin (2006) has piloted polygraph testing as part of the National Probation Service of England and Wales' assessment program of sexual offenders. Here, sexual offending histories were coupled with self-disclosure for a fuller picture of sexual abuse histories. Grubin found that pre-test admissions were particularly frequent in offenders with Internet-related sexual crimes. In the sample, 6 out of 17 males made admissions typically describing a long-standing sexual interest in children and in some cases specific behaviors that would be considered risky in terms of creating the opportunity to commit a contact offense (e.g., sitting in car parks watching young girls or obtaining unsupervised access to children). However, polygraph testing has its limitations with different types of post-offense polygraph tests yielding results with varying degrees of accuracy (Branaman & Gallagher, 2005; McGrath, Cumming, Hoke, & Bonn-Miller, 2007). Those polygraph tests that focus on whether or not an individual has committed a specific offense for which they have already been found guilty are often most accurate, whereas those that focus on wider issues such as whether an individual has been fully compliant with supervision or whether they have disclosed their full offending history are often least accurate (Branaman & Gallagher, 2005; McGrath et al., 2007).

Sullivan and Beech (2003) suggested that in order to ascertain the levels of risk that an individual might cross-over from passively viewing/consuming images of children on a computer to contact offending, comprehensive typologies of Internet offenders need to be developed. The following section will provide an overview of various typologies that have been developed, and what they can offer us in terms of assessment and management.

4.3. Internet-related typologies

Historically, development of typologies based on social science research have influenced the formulation of law and public policy approaches to sex offenders, based on the remit of protecting children from those individuals identified as being at risk of harming them. Prior to the advent of the Internet, Hartman, Burgess, and Lanning (1984) identified four behavioral types of collectors of sexually abusive images of children: closet, isolated, cottage, and commercial collectors. *Closet collectors* are secretive about their collection and are not involved in the contact abuse of children. *Isolated collectors* collect abusive images in conjunction with the contact offenses of children, and their collection may include images relating to their contact victims. *Cottage collectors*

share their collection and experiences with like-minded others (i.e., through pedophile networks), primarily for the validation it provides. *Commercial collectors* have seen the financial benefits of their collection and exploit those benefits for personal profit. Although these categories pre-date the widespread use of the Internet, they do comprise a continuum from those offenders who access and download abusive images of children and do not commit contact offenses, through to those who produce and sell images of their own contact offenses. This becomes a common thread between subsequent Internet-related typologies.

Sullivan and Beech (2004) have suggested a simpler typology that distinguishes between three types. *Type 1* offenders collect images as a part of a larger pattern of sexual offending, possibly including contact offending. *Type 2* offenders collect images to feed a developing sexual interest in children, which may escalate and cross-over to contact offending. *Type 3* offenders access images out of curiosity, which is unlikely to lead to contact sexual offending in most cases. Although Sullivan and Beech's types might seem like a reasonable starting point in terms of thinking about the processes by which child abuse takes place through the Internet, their approach says little about the behavior or motivation of Internet offenders.

Alexy et al. (2005) suggested a typology based on the distinction between those who use the Internet to propagate their contact offending and those who access abusive images. Three behavioral types were identified in this study: traders, travelers, and trader-travelers. *Traders* are offenders who traffic and collect abusive images of children online and therefore fuel the market in child sexual abuse. *Travelers* are offenders who use Internet facilities to coerce and manipulate children into meeting them for sexual purposes. *Trader-travelers* are offenders who both trade and collect abusive images of children while simultaneously using the Internet to arrange meetings with children for sexual purposes.

Although intuitively simple and appealing, there are also a number of problems with this system. A trader who travels to commit contact offenses with children solicited offline while simultaneously accessing abusive images would only be considered a trader. Conversely, an offender who uses the Internet to arrange sexual meetings with children and simultaneously collects offline 'indicative' images or sexually abusive pseudo-images of children is only considered a traveler. Alexy et al. (2005) themselves note that "those classified as only traders in the current study may, in fact, be actively molesting children" (p. 881), which appears to render the typology somewhat ineffective in terms of categorizing and assessing offenders. Also, as Alexy et al. note, their findings cannot be generalized due to incomplete data, having a non-clinical data source, and the possibility of a selection bias as the media may publish only the most salacious cases.

A more comprehensive behavioral typology has been developed by Krone (2004). Krone's typology delved deeper into the online behaviors of Internet offenders and placed types on a continuum of increasing seriousness of offending. Krone defined seriousness using three online behavioral factors: (1) the nature of the abuse, from indirect to direct victimization; (2) the level of networking by the offender; and (3) the level of security they employ to avoid detection. As these factors increase so too does the overall seriousness of offending behavior. Krone described a number of offender types and these are outlined in Table 2.

It can be seen from Table 2 that Krone (2004) highlighted a number of very important distinctions between different types of online offending behaviors. For example, in the *browser* type an individual may be exposed to child pornography unintentionally (e.g., via unsolicited spam e-mails) but then decide to save material encountered. Krone's (2004) typology also removes any aspects of the types of pictures collected, allowing for the notion that a wide range of images can potentially be attractive to individuals with a sexual interest in children. For example, *producers* can be involved in child pornography at any level and can have little, if any, level of sexual engagement with the material. The typology highlighted the potential importance of contact with the Internet pedophile community, which may well be the source of many distorted beliefs and thinking errors regarding Internet offending, and possibly acts as part of the overall mechanism for the maintenance of the behaviors. Krone made the important distinction between those

Table 2
Krone's typology of Internet offenders

Type of involvement	Features	Level of networking by offender	Security	Nature of abuse
Browser	Response to span, accidental hit on suspect site-material knowingly saved	Nil	Nil	Indirect
Private fantasy	Conscious creation of online text of digital images for private use	Nil	Nil	Indirect
Trawler	Actively seeking child pornography using openly available browsers	Low	Nil	Indirect
Non-secure collector	Actively seeking material often through peer-to-peer networks	High	Nil	Indirect
Secure collector	Actively seeking material but only through secure networks, Collector syndrome and exchange as an entry barrier	High	Secure	Indirect
Groomer	Cultivating an online relationship with one or more children. The offender may or may not seek material in any of the above ways. Pornography may be used to facilitate abuse	Varies	Security depends on child	Direct
Physical abuser	Abusing a child who may have been introduced to the offender online. The offender may or may not seek material in any of the above ways. Pornography may be used to facilitate abuse	Varies	Security depends on child	Direct
Producer	Records own abuse or that of others (or induces children to submit images of themselves)	Varies	Security depends on child	Direct
Distributor	May distribute at any one of the above levels	Varies	Tends to be secure	Indirect

Source: Krone (2004).

offenders who use the Internet as part of a wider pattern of contact offending and those who are specifically accessing abusive images while tracking offenders' progression from the use of online abusive images through to cross-over and the commission of offenses. For individuals accessing abusive images or textual material, the progression from *browsers*, through to *secure collectors* is mediated by this increase in the use of pedophile networks to access materials and security as their collections become larger. For the offenders whose offending constitutes direct victimization – the online *groomers*, *physical abusers*, and *producers* – both the level of networking and security would vary depending on the children involved and offenders' motivations for further offending. The drawback of Krone's types, however, as noted by Sullivan and Beech (2003), is that although behavioral typologies indicate clearly what the individuals are doing in terms of offending, we would need a better understanding of their motivations for offending to be able to predict the progression of offending behavior and the risk of cross-over.

Perhaps a more useful approach to categorizing by known behaviors is to consider what an individual is hoping to achieve through their interaction with the Internet. Lanning (2001) described seven types of individuals who use the Internet for sexually abusive purposes. *Preferential* offenders have a definite sexual preference for children who will use the Internet as part of their pattern of contact sexual abuse, through victim access and the use of images to desensitize victims prior to, and during, sexual abuse. *Diverse* offenders have a variety of paraphilic (deviant) sexual interests, but not a strong sexual preference for children, but use the Internet to act upon their paraphilic sexual interests. *Latent* offenders typically would not offend but inhibitions regarding sexual interest in children are weakened if their arousal patterns are fuelled and validated by interaction with online sexual activity. *Situational* offenders typically search for sex and pornography (i.e., men in their late teens or early twenties looking to sexually interact with younger girls, who are curious and/or impulsive, and will commit abusive behavior if the situation presents itself by accessing abusive images or particular chat-rooms). *Morally indiscriminant* offenders have a history of psychopathic/anti-social behavior where sexual offending is part of their criminal repertoire. *Profiteer* offenders aim to profit from the lucrative child pornography market by involving children in sexual activity. Lastly, *miscellaneous* offenders include those who erroneously believe that they can traffic in abusive images of children as part of valid and authorized news exposés as 'media reporters' and the like. Lanning's (2001) typology is extensive and takes into account the many reasons for which an individual might decide to use the Internet for sexually prurient purposes. However, some of Lanning's types appear to overlap. For example, *diverse* offenders who choose to satisfy their deviant interests through the use of abusive images but do not have a strong sexual interest in children would presumably access the Internet infrequently and therefore may be considered to be *situational* offenders. If they continue to access abusive images of children to satisfy their deviant interests they may be better considered *preferential* offenders. The same could be said of *morally indiscriminate* offenders who meet their anti-social motivations through abusive images of children.

The typologies of Krone (2004) and Lanning (2001) overlap in a number of ways. For example, Lanning's *situational* offenders appear to have direct similarities with Krone's *browsers*, as both are accessing pornographic materials and victimizing children through abusive images and/or sexually inappropriate online communication impulsively. In other areas Krone's behavioral types can be constituted as behavioral aspects within one of Lanning's types. For example, Lanning's *preferential* offenders could incorporate both Krone's *groomers* and *physical abusers*, as both of these types have a sexual interest in children, but may utilize subtly different online behaviors to meet their sexual needs. Similarly, Lanning's *latent* offenders appear to incorporate Krone's *private fantasy*, *trawler*, *non-secure*, and *secure collectors*, and these Krone types would constitute the development of offending behavior through the refinement of online skills. Similarly, both Krone's *producers* and *distributors* could be incorporated within Lanning's *profiteers*, if we consider that the profit may not always be money but also currency of images to trade.

Overall, these typologies appear to broadly categorize Internet offenders into four groups: (1) individuals who access abusive images sporadically, impulsively and/or out of curiosity; (2) individuals who access/trade abusive images of children to fuel their sexual interest in children; (3) individuals who use the Internet as part of a pattern of offline contact offending, including (i) those who use the Internet as a tool for locating and/or grooming contact victims and (ii) those who use the Internet to disseminate images that they have produced; and (4) individuals who access abusive images for seemingly non-sexual reasons (e.g., for financial profit). However, there is a need for these types (as would any others developed) to be subjected to rigorous statistical research to confirm their validity and reliability before they should be fully adopted into any criminal prevention policies. Another avenue for further research would be to investigate the motivations of these offenders in terms of what processes lead some offenders to meet their sexual needs through abusive images rather than through contact offenses.

In the conclusion of the paper we will examine implications for law and public policy posed by those who use the Internet for the purpose of child abuse, as using social science evidence can add to the law's normative base (Birgden & Ward, 2003). In this section we will directly address the ICMEC proposed legislative model.

5. Implications for law and public policy of Internet sexual offending

In considering a legislative response to the use of the Internet for abusive purposes, and the risk that Internet sexual offenders present, it is first important to distinguish between offense seriousness and re-offending risk as the two constructs are often confused. *Offense seriousness* is a normative decision by the courts, and the construct is based on a level of behavior rejected by the community based on current moral, social, and ethical considerations. *Re-offending risk* can be an empirical decision made by clinicians, where statistical tools are utilized to predict the likelihood of re-offending and to guide treatment to reduce the likelihood of re-offending (Beech, Fisher, & Thornton, 2003). Offense seriousness and re-offending risk both need to be considered when determining a law and public policy response.

In terms of offense seriousness, the ICMEC proposed legislative model considers all forms of accessing sexually abusive images of children to be serious as strict sentences for deterrent effect are recommended and a punitive and deterrent approach rather

than a preventative or therapeutic approach is sought. However, social science evidence indicates that deterrence will not improve community protection. Not one single review of controlled outcome research in criminal justice or corrections has found a large or consistent effect on reducing re-offending through variations in the type or severity of the criminal penalty or disposition (Andrews, 1995). For example, Smith, Goggin, and Gendreau (2002) concluded, after an in-depth review of 111 studies involving 442,000 offenders, of all offense types, that: (1) harsher criminal sanctions do not deter re-offending; (2) prison sentences are related to increased re-offending rates; (3) longer prison sentences are associated with high re-offending rates; and (4) sentences of more than two years result in average increases of re-offending rate of 7%. The exception may be incapacitation where the community is protected while offenders are in prison. However, it is expected that the majority of offenders in the context of this paper would eventually be released, if incarcerated in the first instance.

As with other sex offenders, deterrence may also include registration, community notification, and electronic monitoring. *Registration* is the notification of address, name, and/or employment to the authorities. There is no empirical evidence that a sex offender register reduces the likelihood of re-offending (La Fond, 2005). Sex offender registers do not enhance community protection as they do not encourage responsibility-taking and behavior change. *Community notification* advertises the whereabouts of sex offenders to community members. No reduced re-offending rates have been found in sex offenders subjected to community notification (Center for Sex Offender Management, April 2001; Harris, Rice, & Quinsey, 1998), and while it may aid in the investigation of new offenses, community notification does not prevent re-offending (La Fond, 2005). *Electronic monitoring* tracks the whereabouts of offenders. Importantly, electronic monitoring was originally designed to be applied to consenting offenders diverted from prison (Renzema, 2003). Electronic monitoring has been found to be ineffective with offenders in general (McGuire, 2002), and it is unknown whether it is effective with sex offenders in particular (Harris et al., 1998). Electronic monitoring programs are rarely applied as they were originally intended, and may be poor substitutes for effective methods of case management. Gendreau, Goggin, and Smith (2001) state that community sanctions such as electronic monitoring "...totally ignore the thousands of studies in the psychological punishment and social psychological literatures which would have predicted the folly of such strategies" (p. 1).

As for re-offending risk, the ICMEC model recommends that aggravating factors such as persistence of offending, levels of violence in the images, links to organized crime, and the potential recidivism upon release need to be considered in any thorough assessment. The typologies reviewed provide different offender types regarding offline offenses and online contact, and whether there is likely to be cross-over. In particular, Krone (2004) has indicated that offense seriousness increases with direct victimization, contact with pedophile networks, and greater effort to avoid detection, which implies a continuum of risk of increasing seriousness. In addition, we may also consider Taylor et al.'s (2001) collection severity factors: size and organization or collection, presence of new and private material, and victims of a lower age, as being further evidence of increasing seriousness. However, evidence indicates that accurately predicting risk in sex offenders is difficult, and as Osborn and Beech (2006) found, risk assessment schedules for contact sexual offenders may not be suitable for the Internet offender population.

The alternative policy response for Internet sex offenders is to support preventative and therapeutic approaches. Monitoring strategies that are likely to have therapeutic outcomes are available through appropriate case management, interagency cooperation, and community engagement (see Birgden, 2007). Effective *case management* involves the delivery of treatment to moderate to high-risk offenders which is of high quality, and has a balanced law-enforcement helping professional role (Harris et al., 1998; McGuire & Priestley, 1995). *Interagency cooperation* involves managing sex offenders and building capacity in local government and community agencies to develop early intervention strategies. Collaborative and interagency approaches have been detailed in the U.S. (see the Center for Sex Offender Management in the U.S., April 2001 and the U.K. (National Offender Management System (NOMS), 2006). *Community engagement* means that the community: (1) understands that it is not feasible to imprison all sex offenders indefinitely; (2) replaces myths about sex offenders with facts; (3) learns about treatment and management to reduce the likelihood of re-offending; (4) receives data to demonstrate effective programs; (5) provides opinions on sex offending to be incorporated into policy decisions; (6) takes concerns seriously; and (7) comments on the implementation of sex offender programs (see the Centre for Sex Offender Management, April 2000). That is, the 'lock offenders up and throw away the key' mentality is a serious misreading of the community's perception.

6. Conclusions

In conclusion, evidence suggests that there is an immense amount of child pornography available on the Internet and a vast audience motivated to consume it. There also appears to be a trend towards increasingly more extreme and graphic images involving the sexual abuse of progressively younger children. The users appear to fall into four categories: (1) 'curious' and impulsive users; (2) users accessing and trading images to fuel their sexual interests; (3) contact sexual offenders who also use child pornography; and (4) those who disseminate images for non-sexual reasons (e.g., financial gain). Further research is necessary to ascertain the potential risk of Internet offender's crossing-over from online to offline offenses as there is a clear overlap, for some but not all offenders, between contact and Internet sexual offending. Furthermore, we need to continue to develop our understanding regarding the psychological and environmental factors that contribute to this risk.

The vast majority of criminal justice agencies around the globe is to be commended for their quick and effective response to the problem of child pornography on the Internet, so far as they are able to respond given the difficulties inherent in moderating Internet activity. The ICMEC legislative model is a major step forward in this global response and we would be keen to see countries uniting in recognizing the strengths of the model and addressing legislative gaps quickly and efficiently. The ICMEC is however limited in that its punitive focus disregards preventative and therapeutic possibilities within legislation and sentencing. We would

suggest from the evidence that a preventative/therapeutic approach, whereby the *seriousness* of the offense is related to the level of victimization of both the children involved in the accessed images or any children sexually victimized directly through the use of online technology, would appear to be the most sensible for this population.

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