

Usenet newsgroups, child pornography and the role of participants¹

Fortin, Francis, M.Sc.
Université de Montréal

Abstract

The availability of Internet services has greatly facilitated the production, reproduction, and dissemination of child pornography as well as the creation of communities or support networks to conceal underground activities. Following a discussion about the Newsgroup Internet service (USENET), this paper aims to analyze how cyberpedophiles use this service to share child pornographic material as well as ideas and experiences about their illicit activities. An analysis of 45 days of text-based communications shows that the community is built through messages of moral / technical support, conflicts and disputes, as well as deployment of strategies to promote pedophile-oriented content (with philosophical discourse and ads promoting other web rings). We also propose an explanation of how each participant plays different roles, ranging from the "powerposter", who brings new content and is admired by all participants, to the "leecher" who is interested in obtaining content without actively participating. Some examples and issues regarding Internet-based communities are also presented.

The phenomenon of pedophile networks is not new. Child pornography networks existed long before the Internet was available to the public (Lanning 1984; Burgess 1984; Burgess and Hartman 1987; Lanning and Burgess 1989; Tate 1992). It gained importance with the expansion of information technologies in the mid-1990s. According to Hanson and Scott (1996), the organized and collaborative aspect of this type of illegal activity necessitates a comprehensive study of the network's internal characteristics. However, perhaps because child pornographers are often described as isolated, less socially skilled (Corriveau et Fortin, 2011) and unable to openly discuss their deviance, there are few studies that specifically address the question of social networks.

The choice of a virtual space is also important for cyberpedophiles. Usenet newsgroups play an important role in exchanging child pornography (Taylor, et al. 2001). Depending on the source, between 2,800 and 5,000 newsgroups are available to tech savvy Internet users in search of child pornography (Wortley and Smallbone, 2006; Sellier, 2003; Taylor, Quayle and Holland, 2001; Carr, 2001)². These researchers agree that they are a haven for those seeking that type kind of content. It is impossible to accurately assess the number of these newsgroups and by extension, the number of pictures distributed daily.

This article aims to show the diversity and complexity of prevailing social dynamics in child pornography related newsgroups. The following hypothesis is tested: Usenet newsgroups are organized, hierarchical networks with different roles for the purpose of producing, distributing, and viewing child pornography. As such, participants have different roles within the virtual community, which encourages the emergence of a social hierarchy among its members. As in any network, deviant or not, active participation allows child pornographers to be appreciated, understood and acknowledged by their peers. Members also provide a set of safety rules to avoid being caught by law enforcement. Essentially, internet child pornographers come to adhere to and fully integrate into a deviant subculture through a process of exchange and peer learning, which in turn reinforces their deviance of fantasizing about children.

Internet and social networks

According to Becker (1985), learning deviance is the result of a social process. This means that the essential aspects of deviance lie in cooperation between participants. It allows them to share a common understanding of a behaviour

¹ The author would like to thanks Patrice Corriveau, Cynthia Giguère and Gareth Samson for their help.

² O'Connell, member of the COPINE project, estimated that 0.07% of 40,000 discussion groups deal specifically with child pornography.

considered that society considers deviant. When shared among peers, the behaviour becomes legitimate in the eyes of an individual. Becker (1985) argues that members of organized deviant groups have one obvious thing in common: their deviance. It gives them the feeling of sharing a common destiny, of being in the same boat. Moreover, this mutual awareness of a common destiny leads to the progressive development of a subculture, where group members share a set of ideas and points of view of the social world and how to adapt. They develop a set of routines based on those views. (Becker, 1985)

Therefore, on one hand, an individual who actively participates in a deviant group confirms and legitimates his deviant identity by realizing that he is no longer alone. On the other hand, the more people involved in the group, the more the sub-culture legitimizes the so-called deviant. Membership in an organized deviant group (network) is always marked by learning and internalizing positive reinforcement by peers. As Becker notes (1985: 61), "in extreme cases, [individuals] develop historical, legal and psychological justifications, complicated by their deviant activity." There is also support from research into child pornography networks. Durkin and Bryant (1999) state that child pornography downloaders are able to legitimize their activity by reading and integrating the content from the large number of «legitimizing stories» available on the Internet.

This identification technique is also widely used by child pornographers to exonerate themselves or to avoid blame. For example, some justify their behaviour, claiming that they do it because they love children. Some argue that the attraction towards children is acceptable because homosexual relationships were socially acceptable in ancient Greece.

A subculture theory of deviance is also compatible in many ways with the concept of social network, which, according to Lemieux (2003: 4), is constituted by a set of links between participants, where each can communicate directly or indirectly with the other and share affiliations, standards, information or more tangible resources. Therefore, a network is not limited to simple gatherings of individuals with the purpose of performing an action or specific task (in this case, exchange of child pornography). Instead, it highlights the complex and varied interactions that occur within this group. Eventually, and to varying degrees, those involved come to share, aside from common standards, technical and material resources for the good and the maintenance of the community.

With this in mind, Becker (1985: 61-62) explains that, by integrating into an organized deviant group (or network), an individual learns to carry out deviant activities with a minimum of trouble (because) others have faced all the problems he has confronted to avoid the application of the standards he has violated, and solutions have been developed. In other words, an actual transfer of knowledge occurs between the deviant and the most seasoned beginners, perpetuating the deviant subculture and ensuring the group's sustainability. In short, Becker argues (1985) that upon entering an organized deviant group, the deviant is more likely to pursue this path than before. He has learned how to avoid difficulties and at the same time, he has acquired a system of justifications that encourage him to persevere.

McAndrew (1999) argues that a criminal network forms when a criminal activity shows some complexity and requires specialized skills. According to him, it is inevitable that tasks within the group are specialized and that participants share roles. As a corollary, a certain formal or informal hierarchy develops between group members. At the top is a minority of participants whom everyone knows and recognizes. At the bottom, those who are new to the group's internal operations. The new participants depend on a few insiders to learn how to follow rules and the skills required to gain recognition from more experienced peers. These insiders have the respect of most group members, given the important role they play within the community.

Typically, these individuals have a level of expertise that makes them almost "essential" to the security and proper functioning of the network. They have the gratitude of other members because they can help their fellow members with technology; they have already taken risks to keep the group running smoothly and they frequently interact in the community. McAndrew (1999) believes that ultimately, deviant networks have a number of advantages for participants. First, the network facilitates the sharing of innovative methods for committing certain crimes. On the other hand, the network simplifies the identification of potential targets while allowing an exchange of information on police activities. Taylor (1999) notes that technical expertise is essential in establishing trust and mutual respect within child pornographer newsgroups. In the next section, we will look at how Usenet is different from Internet services in terms of anonymity.

Usenet groups as a “safe” place?

By reviewing research on child pornography, it became evident that Usenet newsgroups constitute one of the largest source of child pornography available in cyberspace (Taylor, et al. 2001). Also, other researchers have found this source useful for observing other types of criminal or particular activities: online interaction between pedophiles (Durkin and Bryant, 1999), adult pornographers (Mehta, 2004), and writers of pornographic stories (Harmon and Boeringer, 1996). The question remains: why is Usenet attractive as a venue for exchanging illegal material?

To understand the characteristics and the interest in Usenet for sharing illegal content, we must examine the the origins of this network, which is considered one of the oldest trading systems in the virtual world. Usenet came into existence in 1979, before the popularization of the Internet. It was developed by two graduate students from Duke University in North Carolina (UNC) as a network that allowed users to exchange quantities of information too large for mailboxes (Gakenback, 1998; Sohier, 1998). Usenet was designed to facilitate textual exchanges between scholars. Slowly, the network structure adapted to allow the exchange of larger files such as videos or images. Even today, some servers restrict users to 5,000 lines of text. To solve this problem, Internet users exchange large files through segmentation: dividing a large file into several smaller messages (binary files), which users reconstitute if they want to have the file. Usenet now permits thousands of Internet users to exchange all types of information (pictures, videos, sounds, etc.) through a multitude of newsgroups hosted on servers located around the world³.

Usenet is a decentralized system by nature, which may be the attraction for those wishing to share illegal content. All information circulates through thousands of computers via various news servers across cyberspace, which makes it difficult to track the origin of the content. It is easy to hide an IP address and easier to conceal the participant's identity (Wortley and Smallbone, 2006), which minimizes the chance of being convicted of a crime. Furthermore, visitors to these groups leave very few traces, making detection more difficult for law enforcement. The architecture differs from that of websites, which have a client / server connection and where the system can only work if it knows the IP address.

Data sources and Methodology

In order to understand the nature and mode of functioning of online child pornographer networks, researchers followed three groups for a period of 45 days, analyzing social interactions⁴ within the group. The period was sufficient to account for different exchanges and mechanisms, without disproportionately increasing the quantity of content to be analyzed. One of the newsgroups was removed from the analysis because it contained only encrypted messages and was unreadable. More than 24,000 messages were collected. These posts were subsequently classified in a database which was analyzed through a spreadsheet. This database, of more than 10 gigabytes, contained all available information including: the author of the item, IP address (if available), the size of the message sent, subject, nature of content (textual or binary), presence of attachments, date and time the message was sent, etc. We also used information collected by Google regarding Google Groups newsgroups: their history, nature of content and number of exchanges and percentage of content / text. Even if our main goal was to investigate text messages, an overview of the content convinced researchers that child pornography was distributed in the three groups, and would be considered as such even in countries with less stringent laws.

In this research, more than 1,600 messages were analyzed within a qualitative framework. All were read and categorized by theme. Three researchers analyzed messages by highlighting themes discussed in groups. After validating the themes, all messages sent during the review period were rated on a grid. We then designed a pyramid that illustrates different roles played by participants in the groups (see result section).

It should be noted that anyone wishing to conduct a study on child pornography faces some legal constraints in Canada. Canada's Criminal Code prohibits, in Article 163.1 (4.1), any person from knowingly accessing child pornography. However, in the context of this study, which aims to analyze the distribution of child pornography in Usenet newsgroups, researchers would inevitably have access to child pornography. This access was granted under controlled conditions and was limited to data collection. Thus, Article 163 (3) of the Criminal Code, which deals with the defence of public good, applied to the research protocol. Just as the interpretation of the Supreme Court of

³ It should be noted that messages on Usenet are asynchronous and are not sent in real time. There is a variable time lapse between the question and the answer.

⁴ The period of data collection took place between March 18, 2004 and May 1, 2004. For obvious reasons related to the illegality of these news groups, any information that could trace these newsgroups will not be mentioned in this article.

Canada in R. c. Sharpe states "the various defences provided by law (that is to say, the artistic merit, educational, scientific or medical and public good) should be interpreted liberally so as to protect freedom of expression and possession for social benefits which bought its shortcomings." This study was performed under controlled conditions and was limited to data collection. To ensure compliance with legal guidelines of the Canadian criminal code, this study was conducted under the supervision of the cybercrime unit of the Sûreté du Québec (Quebec provincial police).

Groups overview: more than just a network to share images?

According to the data collected, it appears that users of the three groups⁵ sent material rather than text. Table 1⁶ shows that more than 85% of messages posted on newsgroups were images or binary files, mostly representing children aged 8-16 years⁷. To complete the transfer, the distributor must separate the video into hundreds of small chunks of files. Then, the sender must break up the file into multiple sections to send to the server. After that, the chunks must be "reconstructed" by downloading all the fragments. Each chunk is a new post, which significantly increased the proportion of posts in our data.

The analysis of textual communications between child pornographers also highlights the importance of conversations for these individuals, as most send only text messages and not images. More than 80% (82.4%) of all users have written at least one text message, as opposed to 23.9% who sent at least one image or video. This finding suggests two elements. First, the majority of child pornographers have very little new content to share with others. Second, they rely heavily on a minority of participants to obtain new content⁸. This observation supports the COPINE findings: that there is a limited amount of newly acquired child pornography available and that most material available on the Net is old images or digitized video (citation).

Table 1: Overview of content distributed in the three study groups

Content	Group "A"		Group "B"		Group "C"		Total	
	N	%	N	%	N	%	N	%
Text	1 817	11.6	763	11.9	302	12.7	2 882	11.8
Image (attachment)	6 683	42.7	642	10.0	2 073	87.3	9 398	38.5
Binary	7 148	45.7	5 002	78.1	0	0	12 150	49.7
Total	15 648		6 407		2 375		24 430	

The first group was the most active with 15,648 messages, representing an average of 347 posts per day. According to Google⁹, this group has a high level of participation. This group started in November 1992, but the level of participation soared in 1998 (Google, 2006). With few exceptions, the group maintained its level until the time of the study. As such, 1227 different authors submitted messages during the period. Only 129 of these participants or 10.5% of all participants add content, including images and binary files. The remaining participants (1098) participated in discussions by sending text messages. Overall, the *Prettyboy* group had the highest number of text posts, with 11.6% of all posts, while 88.4% were characterized by photos or binary files¹⁰. Hence, this indicates that 10% of users sent 85.7% of the contents.

⁵ This information was disclosed by a joint study of child pornography conducted by Justice Canada and the Quebec Provincial Police. 2004

⁶ For ethical considerations, we changed the name of the study groups.

⁷ Some pictures showed young adults, despite the title "teens".

⁸ We may question if the majority of users of these new groups had the technical expertise required to retrieve or send images or videos of child pornography.

⁹ Google keeps usage statistics of some newsgroups.

¹⁰ Note that even if the sender sent a comment with the photo, the message was still classified under the heading image.

Group "B" appeared in April 1994 and had a much less explicit name. This group's name does not clearly state the group's topic and that the group was studied during a particularly turbulent time, compared to that of the other group. This group is less significant in terms of participation, with 6407 posts, which is less than half of the previous group. Google considers the group a low participation group, as binary messages are not included when calculating participation rates. With an average of 142 active messages sent on a daily basis, this group could still be considered for study. Once again, its focus is mainly on content exchange, with 88.1% of items sent as images or binaries compared to 11.9% for text. We counted 305 different authors in this group, with a similar pattern to the previous group: 58 participants sent all content as images or binary files, while nearly all (269 or 88%) have sent at least one text message.

The last group had the most evocative name, which is why no statistics are available at Google. During the 45-day period, 2,375 messages were sent with an average of 52.8 per day. This group had the lowest participation of the three study groups. It was not used for sending binary files, but in 87.3% of cases, content was sent as a file attachment. There were 239 different authors in Group C; 141 authors sent texts while 101 sent images. Essentially, this group has the same text / content proportions but with less participation; some groups are simply more popular than others.

Moreover, the analysis shows the importance of discussions, which are "conversations" between members of the newsgroup. Most participants send text messages rather than images. Thus, 82.4% of all users in the group analyzed have sent at least one text message, while only 23.9% of Internet users posted a file attachment or binary. In other words, only a small proportion of users send pictures, even if the images are nearly 87% of all messages posted.

In all likelihood, there is a minority of child pornographers distributing the vast majority of illegal content available in the newsgroups. Our findings established that two users were responsible for distributing 72% of all available images in news group "B"; four users were responsible for posting 51.7% of all images of child pornography found in newsgroup "A". In group "C", fourteen individuals were responsible for sending 50.2% images. This small group of individuals is referred to as "powerposters" and they frequently converse with other group members. Furthermore, it is important to note that these results do not account for all consumers of child pornography, or discussion group users who viewed or downloaded content without sending messages.

A true virtual community: the establishment of a sub-culture?

Is there an existing pedophile subculture in Usenet newsgroups? To answer this question, it is necessary to determine whether the groups actually form their own new community with a particular subculture. The qualitative analysis of thousands of textual exchanges between users seems to support this hypothesis. Many of these messages clearly illustrate that users see themselves as part of a community, a "small company" on the margins of society, as summarized by one:

"For many of us, this is our social life. We can discuss our feelings here and feel a part of something without fear of being condemned by society for our feelings and beliefs."

This is also support by answering to hostile message. One of the participant who is a regular poster answered an "outsider", by using terms "we" and "they" to talk about the members and the others :

*"There is *no* place that is safe for anyone, in this newsgroup, or anywhere else in real life. There is always a possibility that we will be attacked at any time, anywhere, by anyone who wants to.*

They give us hate, we express love. Who do you think will have the most pleasant experience? :-) (...)

*I still care about *all* of us, more than is possible for me to express. "*

Another user reinforces the idea of a well-developed virtual community, stating that he would only exchange information with people he "knows": *"From now on, I'm only replying to messages posted by nicks I recognize from this community."* In other words, you must prove your motivation in order to join this network of child pornographers.

It was also observed that users communicate with each other over several years, with some exchanges repeating. Discourse analysis shows that many users are so familiar with each other that they know when someone attempts to

appropriate another member's pseudonym. At the same time, newcomers must prove their "good will" to join the group, often by initially exchanging child pornography. This would certify that a) they are not law enforcement officers and b) they are interested in joining the community. In light of the many precautions taken by users, it is obvious that members are fully aware of the illegal nature of their activities and they must organize and protect each other if they want to continue sharing material. For example, a user says:

« I understand where you are coming from, BUT you are just as guilty as anybody in this group just for viewing these articles. Why are you looking in this group in the first place? Obviously, you have viewed the files and know what is posted in this particular group. Yes it is well known one of our best friends has-been arrested, intended as well as you know the rest of us that it is illegal to view as well as post these kinds of articles. If anon feels threatened and feels that he cannot trust anyone here, He will move on to post in other areas elsewhere. »

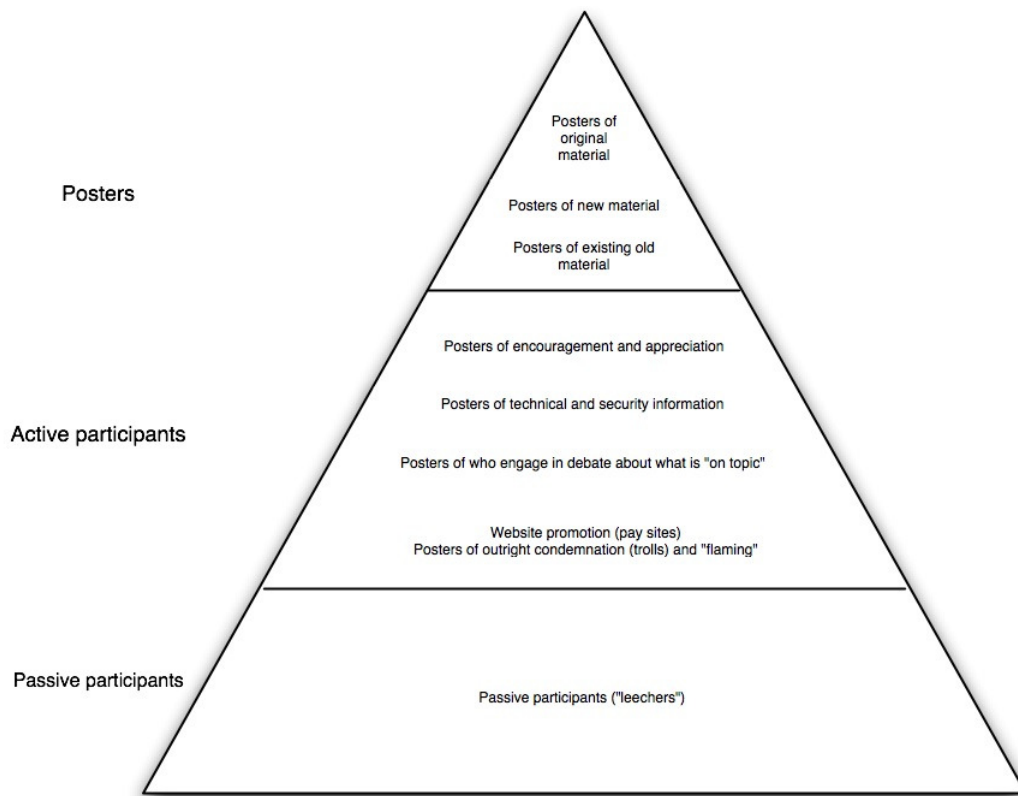
Aside from messages like these, which demonstrate a sense of community, the analysis of different roles also supports our hypothesis.

Distribution of roles

The systematic coding of messages by theme suggests that some participants play recurring roles; we prefer to use the term *role* to designate the different conduct of participants. The pyramid in Figure 1 illustrates that the number of users in each role is in ascending order: at the highest levels of the pyramid, there are the fewest participants. That is also where we find the most highly valued and admired participants. While these groups are relatively formal and hierarchical in some respects, they are mainly places for collaboration among peers and the social relations are more cooperative than hierarchical. However, we do not exclude the possibility that a participant may have a different role in the community. Three types of participants emerged from our study: content distributors, active members and "passive participants"¹¹.

¹¹ The participants sometimes refer to them as « leechers » (In computing and specifically on the Internet, a *leech* or *leecher* is one who takes advantage, usually deliberately, of others' information or effort but does not offer anything in return) (Wikipedia, 2011)

Table 2 - Roles in newsgroups under study



Obviously, participants are mostly looking for illegal material. As such, we were able to distinguish three types of image and video providers. First, some content providers posted original, never-seen content. In these rare cases, posters pretended that they were the ones who had produced these images. Some tech-savvy participants looked for new content and supplied the group with links, images and videos. Others posted material from old magazines or posted images that were easier to find. Sometimes, pictures drew reactions from the community, with positive reaction from participants directly proportional to the content's exclusivity. The most grateful reaction was toward a producer who claimed that he had access to a victim. The participants asked questions to test the poster's veracity, but most were grateful and enthusiastic. The three types of posters were mainly of the type referred to as "powerposters" in the previous section. Only a small number are responsible for a large quantity of shared content.

The **average user** tends to be well integrated into the group subculture, interacting extensively with other community members. Some actively participate in many discussions; others may ask for help - for example, when unable to download or restore a message from a 'colleague'. Sometimes, these amateurs require specific photos or videos to complete their collection. At first glance, it would seem that these participants play a minor role in maintaining the group, since their participation in the distribution of child pornography in the newsgroups is negligible or even nonexistent. However, the analyses of discursive exchange between users stress the special place they hold concerning the maintenance and reproduction of the group subculture. Their active participation in discussions contributes significantly to the dynamism of the groups. They express a desire to obtain recognition of their peers by moving up in the hierarchy (by finding exclusive content, for example).

Many users who were not sending content provided support and encouragement to other posters. The encouraging and appreciative posts seemed to provide other posters with energy. After they received photos of interest to them, they thanked the other posters and encouraged them to continue:

"Thank you again D4gotten1 for all these wonderful pics you are sharing."

"Thanks for the classics".

"This movie is one of the best i ever seen :) Please post the rest of it."

"Please post it "

"PLEASE POST "

"OH MY... YOU CAN SEND HERE NORMAL FILES... PLEASE DO THAT"

"Come on. Join the crowd and enjoy the pictures"

Posters also need to feel validated. Some said that they were tired of distributing child pornography or even exhausted from insults regarding their difference and deviance. For example, one participant wrote that he wanted to die following the insults from another user. To cheer him up, other "colleagues" sent him messages:

"Keep up the good work!"

"George, you are a beautiful person. I've seen your many posts you have written over time. I can see that you are a very caring man. I know of no one who would want you to die, except this Troll that caused you to post this. He wants everyone to die."

"YOU are important to us. Many of us care about you and wish we could help you feel better. This in itself may not make you feel better, but we can hope".

Some community members flatter the ego of another, either to congratulate or encourage them to remain active in the group. They are essentially expressions of gratitude or admiration for content that a member provided or to the central role he occupies within the virtual community. Some common examples:

*"Many thanks you [sic] for your creations. You are an absolutely awesome poster. **I just want to pay tribute to your creativeness here**";*

*"You just crack me up... I don't think you know just how big you are. Hey note that! I did test you, remember? **I hope I can stay around long enough to watch you grow up.** It's going to be a amazing experience for all of us";*

"I like your post and I hope you will continue to post, here or elsewhere, this kind of pictures because I like them. Thanks a lot again for sharing";

"Thanks for your constant efforts in sharing these wonderful pictures. I appreciated them fully (as well as your dedication at sharing them)"

(Bold and caps were in the original messages)

Most users believe they deserve more recognition from their peers. Well-known members of the virtual community have little difficulty posting with the thinly veiled motive of drawing compliments and reminding everyone of their importance within the group. Others are more modest in their attempts. As one of them said: *"This does not mean that I'm a know-it-all, and that I'm trying to boost the ego that isn't in play here? There are a great many things that I know very little about"*. Another went further, writing that:

"Some people are angry with me for not saying what they wish me to say, even though they could have said these things for themselves. They may have placed too high a value on what I say. I have only one voice, just as everyone else does. I have no more or less value than anyone else. If my words have significance, it's the words, not me. It's the message, not the messenger, that is important."

Groups must also keep up to date on technical details to work properly. The "**technical experts**" are seen as essential to the survival of the virtual community because they provide help and explanation to new members. They outline the basics of security to avoid arrest or provide help with technical problems. This type of relationship occurs mostly among insiders, who have specific expertise with new technologies, particularly in Usenet. New users join and post regularly. These participants use computers extensively; through these numerous attempts, by trial and error and with advice from experienced users, they are able to achieve their goal (for many, this means easy access to child pornography).

Technical experts provide participants with two main types of technical assistance. First, basic tips for protecting the user's identity. Thus, a user will explain to the whole community,

"The only posters who got busted were those who made incredibly stupid mistakes. -Posting original material with your entire face in it. -Posting original material with personal identifiers in it (your car, watch, ring, identifying tattoo, scar, etc.) -Posting original material with location identifiers in it (e.g. newspaper, hotel, landmark, street signs, t-shirt of local sports team, locally produced soda or beer, workplace logo, etc.) -Posting ANYTHING with your true IP address or ISP name showing in your headers."

"The truth is that newsgroup posters who use common sense and basic security precautions can, and have, gone on posting for years without incident."

It is also quite common for newcomers to seek advice from other members on how to avoid police detection. Community members are fully aware of the illegality of their actions and are more than willing to help keep each other « safe ». A classic response to this type of query:

"You keep your IP address out of your headers by changing which news providers you use. The news server supplied by your ISP will usually include your IP address with every post. You can subscribe to a news provider that doesn't include your IP address, or you may even find a free news provider that masks that information".

Safety advice tends to be very accurate, educational and easy for novices to use. For example, Nick1 will tell Nick2 exactly which software he needs, how much it costs, how and where he can get it: « You can try a 3.95\$ US\$ FOR LIFE (yes, for life) with XXX. XXX will hide your IP address and by changing provider, you should also change your nick name because it is related to your past post ».

Viewing or downloading the child pornography posted on the newsgroup requires some technical skills. Thus, messages like this are common: "Can anyone can help me with viewing images slip?" Sometimes the response from the technical expert is very short, "Splitting the movie Will make it easier"; sometimes it's more elaborate, and even didactic. For example:

"Some posting programs automatically separate the text in a post, from the file attachment, making an unnecessary multipart post. The settings that cause it can often be adjusted to remove this problem.

Depending on the original post, your newsreader can sometimes combine duplicated (caused by the poster or server error) posts into what looks like one multipart post. If this is a file you are downloading, your newsreader will probably download it correctly, and not give you duplicate files.

How your newsreader presents the newsgroup downloaded header list to you, depends on its [sic] settings, and what it understands of the subject line of each header. Each different newsreader looks at the subject line differently, and can get confused by unusual entries in them, or even the order in which the information is written. A good example of this, is Invisible's newsreader's incompatibility with how yEnc files are posted by an older version of PowerPost, which creates a subject that his newsreader doesn't recognize as describing a yEnc post. Of course, there may be other difficulties as well."

These examples of mutual technical assistance and shared safety tips between community members are common and consistent with Taylor's findings (2001) on newsgroups, which show that this form of technical assistance is vital in maintaining social relationships between users. These exchanges repeated during the 45 days of analysis; a total of 277 messages, or approximately 17% (16.8%) of all text messages contained requests for advice or technical assistance. Moreover, and as expected, the "technical advisors" enjoy a high status within the online community and receive numerous posts expressing gratitude: "Thanks for your help" or "Thanks for your support". These messages are, in some ways, the other side of the relationship.

The technical and security posters have the role of posting messages warning the community of external threats, particularly the possible presence of police within the group. These warnings account for just over 2% of messages examined. Some are addressed to the entire community:

"This site is closely monitored by Interpol! They who used their credit card for membership or 'donations' can expect a visit by (or an invitation from) law enforcement officers soon. This is also true for all who took part in any activities linked to these pages through MSN or Yahoo. Don't even think about checking out this site without hiding your IP because if you do, your name will feature on 'the list!'"

"This message probably did not originate from the above address. It was automatically remailed by one or more anonymous mail services. You should NEVER trust ANY address on Usenet ANYWAYS: use PGP!! Get information about complaints from URL below" "You are charting into dangerous waters, or should I say You are driving on a dangerous highway"

"It's probably an FBI agent"

Researchers also studied extensively the discourse in cyberpedophiles rings (Corriveau and Fortin, 2011; Durkin and Bryant, 1999). Participants seem to have a need to communicate their feelings and thoughts about the newsgroup topic. Some are engaging in discussion about pedophilia:

"From my unique perspective as a boy that LOVED SEX (starting in earnest when I was about 9 or 10 - the occasion of my first ass fucking by a 15 yo boy), I would have absolutely been willing to have sex with a man. I actually tried to initiate such one time but I was, to my dismay, rebuffed."

But, most of the time, the values regarding pedophilia seem to be mostly related to the content shared. The use of smileys or comments about child who likes what they are doing is relatively common. In this example, participants were talking about a prepubescent child depicted in a series of pictures shared in the group: *"It seems unlikely that he was hurting the boys since no had a clue about it. To them, it was probably just fun."* Another participant defines vaguely on his own terms the concept of consent:

*"I want a donut. Chocolate. Sugar glazed. Do I deserve it?
The donut wouldn't think so. Is that going to stop me? :-)"*

For participants who were insecure about the purpose of the group, a powerposter states clearly that people are here for the love of boys and to keep messages "in topic":

"We are here in these newsgroups for a reason; to share our love of boys. That's it. Everything else is extra. The subjects of politics and religion will divide us"

Because newsgroups are public and accessible to all, some messages can be collateral damage in a group about pedophilia. Intruders enter the group to post provocative and insulting messages. This phenomenon is not limited to child pornography forums. Kayany (1998) has found, by studying four mainstream Usenet forums, that "The number of flames directed at those who do not share the socio-political, religious, or cultural affiliations are significantly greater than the number directed to those within the group." On the internet, users like these are referred to as *trolls*: "someone who posts inflammatory, extraneous, or off-topic messages in an online community, such as an online discussion forum, chat room, or blog, with the primary intent of provoking readers into an emotional response (...)" (Wikipedia, 2011). Obviously, a community of pedophiles who share and discuss photos may add a dose of emotional reaction as seen in these examples.

"If you choose to post any more illegal material in this group, YOU will be reported. You then can join your friend homeanon for the next thirty years. You have been warned. WWW ";

"Just what the world needs. Another fucking pedo";

"All you fucking deserve is a bullet in your empty head. I understand you have become quit the big shop in the little boy diddler groups";

Go fuck yourself, Y-Nut. Not everyone who fucking trolls your little child abuser groups is me";

The responses to trolls or to outsiders can also be emotional:

"What a fool ass hypocrit. Too complicated for U???? " or " Wrong group Asshole! ";

“Lookin, Has anyone ever told you how much of a fucking retard you are!?!? PLONK!!!! Kill file time!!”

“What is it with you assholes in here. You know what is posted in this group and therefore if you have a problem with it, don't download.”;

At the bottom of the pyramid are "**passive participants**". These users only surf into groups to take advantage of new images being distributed, but do not participate in the subculture of the group. They are passive because they only download materials but do not interact with other community members. At the same time, they are virtually invisible. These 'lurkers', are part of the dark side of this virtual world. It is impossible to determine the precise number of passive users, who only view or download content without posting. The extent of participation in a newsgroup is only measured by messages. Thus, an unknown number of people may have consulted the group without being counted as participants. In Usenet groups, Maltz (1994) has found that the majority of users seem to read messages written by others. One of them, decided to participate and wrote this significant post

“I have recently bought some new Boy Nudist Movies in germany in dvd format and I want to know how i can put them on my computer into mpeg format so i can share them.

Can someone please tell me what program i need to do this an how i go about doing it. i really enjoy the posts here and appreciate all the movies you guys post for us lurkers”

In this example, a participant who calls himself a lurker ask for technical help to start sharing.

“Consider what is posted of Boy David and Man complete I choose not to complete it do to do to I can stand all the bigot that post in here isee no one else posting a damn thing and I made a truthfull posting about this From [poster] and then I get attacked for it so for now I will be a lurker (...)

The pressure put on passive participants seems to have motivated this user to have a more active role in the groups. Some posts contain pressure to share or simply reinforce the negative image of being a invisible participant.

Conclusion

In light of what we have seen, it is clear that users of child pornography in Usenet newsgroups interact with each other and form their own community. In this sense, the social learning theory of a subculture of deviance (Becker 1985) applies to our case. We also found that more computer literate users are willing to guide the novices by showing them how to avoid police detection, how to remain relatively anonymous in the virtual community and how to participate more actively in exchanging new materials. It was also revealed that these individuals are aware of the risks they face. Mutual aid, both moral and technical, is important, which is why we chose to refer to *roles* within the group rather than the traditional hierarchy, which predominates in traditional criminal organizations, for example.

In this respect, the contribution of sharing material plays a predominant role with these participants, allowing them to climb up the levels of the informal hierarchy by increasing their credibility within the community. Consequently, the users show that they are increasingly important and useful within the group. We saw that members of the subculture are eager to praise themselves, to encourage each other and justify their deviance.

In this sense, this study points out that child pornography cannot be distributed in Usenet newsgroups without some form of mutual assistance between individuals, which encourages participants to specialize in performing certain tasks. While the specialization of tasks is not as formal and specific as in traditional organized crime, for example, it

does exist and is helpful in distributing and sharing child pornography. In summary, we can say that child pornographers are a relatively structured and organized network that ensures its own sustainability.

References

- Becker, H.S. (1985). *Outsiders. Études de sociologie de la déviance*. Paris, Métailié.
- Burgess, A. W. avec M.L. Clark (dir.) (1984). *Child Pornography and Sex Rings*. Massachusetts, Toronto, Lexington Books.
- Burgess, A. W. et C. R. Hartman (1987). « Child abuse aspects of child pornography ». *Psychiatric Annals*, 17 (4), p.248–253.
- Carr, J. (2001). « La pornographie enfantine ». *2e Congrès mondial contre l'exploitation sexuelle des enfants à des fins commerciales* (Yokohama, 17 au 20 décembre 2001), en ligne à <<http://focalpointngo.org/yokohama/french/themepapers/theme1.htm>>, en anglais, <www.ecpat.net/eng/Ecpat_inter/projects/monitoring/wc2/yokohama_theme_child_pornography.pdf>.
- Corriveau, P. et Fortin, F., *Cyberpédophiles et autres prédateurs virtuels*, Montréal, VLB éditeur, 2011, 166 pp.
- Durkin, K. F. and Bryant, C. D. 1999. Propagandising pederasty: A thematic analysis of the online exculpatory accounts of unrepentant pedophiles. *Deviant Behavior*, 20: 103–127.
- Gakenback, J. (1998). *Psychology of the Internet : Intrapersonal, Interpersonal, and Transpersonal implications*. London, Academic Press.
- Gaspar, R. et P. C. Bibby (1996). « How Rings Work », in P.C. Bibby (dir.) *Organized Abuse : The Current Debate*. Brookfield, Ashgate.
- Hanson, R. K. et H. Scott (1996). « Social networks of sexual offenders » *Psychology, Crime and Law* 2, p.249-258.
- Harmon, D. , & Boeringer, S. B. (1996). A content analysis of Internet- accessible written pornographic depictions. Retrieved from <http://www.acs.appstate.edu/-sbb/netporn>
- Hartman, C.R., A.W. Burgess and K.V. Lanning (1984). « Typology of collectors » in Burgess (dir.), *Child Pornography and Sex Rings*. Lexington (Massachusetts), Lexington Books, p. 93-109.
- Healy, M. A. (1996). *Child Pornography : an international perspective*. Stockholm, World Congress against Commercial Sexual Exploitation of Children.
- Holland, G. (2005). « Identifying Victims of Child Abuse Image : An analysis of Successful Identifications » in E. Quayle et M. Taylor (dir.) *Viewing child pornography on the Internet : Understanding the offence, managing the offender, helping the victims* London, Russell House Publishing, p. 75-90.
- Jenkins, P. (2001). *Beyond Tolerance : Child Pornography Online*. New York, New York University Press.
- Lanning, K. V. (1992). *Child Molesters : A Behavioural Analysis*. Washington (DC), National Center for Missing and Exploited Children.
- Lanning, K. V. (1984). « Collectors » dans A. W. Burgess avec M.L. Clark (dir.), *Child Pornography and Sex Rings*. Lexington (Massachusetts), Lexington Books, p. 83-109.
- Lanning, K.V. et A.W. Burgess (1989). « Child Pornography and Sex Rings » in D. Zillman et J. Bryant (dir.). *Pornography : Research Advances & Policy Considerations*. Hillsdale, Lawrence Erlbaum, p. 235-258.
- Mehta, Michael D. Pornography in Usenet: A Study of 9,800 Randomly Selected Images *CyberPsychology & Behavior*. December 2001, 4(6): 695-703. doi:10.1089/109493101753376641.
- O'Connell, R. (2003). *A typology of cyberexploitation and on-line grooming practices*. Cyberspace Research Unit. Preston, University of Central Lancashire.
- O'Connell, R. (2001). « Paedophiles networking on the Internet » dans C.A. Arnaldo (dir.), *Child abuse on the Internet : Ending the silence*. Paris, Berghahn Books and Unesco, p. 65-79 Office of Juvenile Justice and Delinquency Prevention, « Highlights of the Youth Internet Safety Survey », March 2001, no 4.
- Sellier, H. (2003). *Innocence-en-danger.com. Internet : le paradis des pédophiles*. Paris, Éditions Plon.

Smallbone, S. et R. Wortley (2000). *Child Sexual Abuse in Queensland : Offender Characteristics and Modus Operandi*. Brisbane, Queensland Crime Commission.

Schneider, J. L. (2003). Hiding in Plain Sight: An Exploration of the Illegal(?) Activities of a Drugs Newsgroup. *The Howard Journal of Criminal Justice*, 42(4), 374–389.

Sohier, D.J. (1998). *Internet : le guide de l'internaute 1998*. Montréal, Éditions Logiques.

Taylor (2001). *La pédopornographie, Internet et les infractions*. Ministère de la Justice – Division de la recherche et de la statistique du ministère de la Justice du Canada (2001) – congrès transfrontalier – la frontière canada-états-unis : une réalité changeante séance sur Internet et la pédopornographie. Rapport du congrès tenu le 22 octobre 2000, Vancouver, Canada.

Taylor, M. et E. Quayle (2002). « Child Pornography and the Internet : Perpetuating a cycle of abuse ». *Deviant Behavior : An Interdisciplinary Journal*, 23, p. 331-361.

Taylor, M. et E. Quayle (2003). *Child Pornography an Internet Crime*. New York, Routledge.

Taylor, M., E. Quayle et G. Holland (2001). « La pornographie infantile, l'Internet et les comportements délinquants ». *ISUMA The Canadian Journal of Policy Research*, 2 (2), p. 1-12.

Taylor, M., G. Holland et E. Quayle (2001). « Typology of paedophile picture collections », *The Police Journal*, 74 (2), p. 97.107.

Thornburgh, D. et H. Lin (dir.) (2002). *Youth, Pornography and the Internet*. Washington, National Academy Press.

Tremblay, P. (2002). « Social Interactions among Paedophiles ». *Cahiers de criminologie*, 36 (50). Montréal, Université de Montréal, Centre international de criminologie comparée.

Wortley R. et S. Smallbone (2006). *Child Pornography on the Internet. Problem-Oriented Guides for Police*. US, Department of Justice.