cybertip!ca®

15-YEAR ANNIVERSARY
REPORT

CANADIAN CENTRE *for* **CHILD PROTECTION**®
Helping families. Protecting children.

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The Term "Child Pornography"

It is important to note that the definition of "child pornography" under Canadian law is not limited to images that depict actual children. Child pornography includes animé, as well as written material and audio recordings that advocate or counsel unlawful sexual activity with a child or that have the dominant characteristic of describing (for a sexual purpose) unlawful sexual activity with a child. Although "child pornography" is the term used in the *Criminal Code,* it may minimize the crime or give the impression that the children being abused are complicit in the abuse. The term "child sexual abuse images" more clearly describes the assaults taking place against children and is a more accurate term for illegal images depicting child abuse. Therefore, it is the term used in this document unless the term is specifically referring to a legal definition.

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Model in image and intended as illustrative.

INTRODUCTION

For the past 15 years, the Canadian Centre for Child Protection (Canadian Centre) has operated Cybertip.ca — Canada's tipline to report the online sexual exploitation and abuse of children. Cybertip.ca was established as a pilot initiative on September 26, 2002. The service then expanded nationally in January 2005, when, as part of its *National Strategy for the Protection of Children from Sexual Exploitation on the Internet,* the Government of Canada designated Cybertip.ca as Canada's national tipline for reporting the online sexual exploitation of children. As an independent, charitable, non-governmental agency, the Canadian Centre has played a unique and critical role in this space by offering a national clearinghouse for triaging potentially illegal reports as well as providing Canadians with resources to reduce child victimization on the internet.

The *Cybertip.ca 15-Year Anniversary Report* highlights Canadians' use of the tipline's service, our results and successes, the evolution of the tipline over the years, our commitment to innovation and what we have learned over the years. Cybertip.ca is steadfast in its pledge to be an instrument of change and a catalyst for collaboration between the public, private and non-profit sectors, recognizing the critical need for all stakeholders to work together to get ahead of this very serious issue impacting our youngest and most vulnerable children.

The role of technology in facilitating sexual offences against children has significantly evolved over the years, as has our understanding of sexual offending behaviour and the manifestation of these activities on the internet. More recently, the Canadian Centre has actively begun to connect directly with victims of this crime and those who represent them, both directly and indirectly through the Survivors' Survey [1]. This has given us a unique lens into the lifelong impact to victims and the very real struggles they face online and offline as material related to their abuse is continually shared. We have also gained significant expertise in relation to the scope of the problem through the operation of the Crockpot [2] and the more recent operation of Project Arachnid [3].

[1] For more information on the Survivors' Survey, visit protectchildren.ca

[2] The Crockpot is a completely autonomous system whereby reported URLs are monitored on a scheduled interval to determine if they are hosting known child sexual abuse content.

[3] Project Arachnid is an automated system for detecting child sexual abuse material and triggering notices to hosting providers for removal.

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Internet-based tiplines around the world are at the forefront of witnessing the online sharing of this material and the Canadian Centre is playing a leading role in reducing the availability of child sexual abuse material on the internet, while working to provide psychological relief to victims of these crimes.

With the evolution of Project Arachnid, the tipline is now in a very different position to address content and for what purpose. Firstly, we no longer, in isolation, promote the idea of the public reporting websites concerning child sexual abuse material. Project Arachnid demonstrates that technology can bear the brunt of detecting where the vast majority of content sits on the internet. Where the public can make a serious difference in preventing/disrupting the efforts of those with a sexual interest in children is by reporting concerning adult behaviour and potential child victims. Secondly, we recognize that for far too long the needs of survivors have either been secondary or not even considered when it relates to their lifelong journey of dealing with the recording, posting, sharing and trading of their child sexual abuse.

For the first time ever, Project Arachnid provides actual data on the prevalence of child sexual abuse material on the internet – data that is essential to highlight why the international community urgently needs to address this heinous crime. Project Arachnid can provide the international community with a vast amount of data to support and pinpoint alternative approaches and more effective ways to support survivors and reduce the availability of child sexual abuse material.

We know that more needs to be done to identify and support child victims of sexual abuse, identify offenders, and reduce the availability of this material. After 15 years of operating Cybertip.ca, the tipline is well positioned to work with government, police and industry, leverage stakeholders' unique assets and make a real and lasting difference for the protection of children. In spite of the significant progress made over the years, it is clear that we must all strengthen our commitment to fight the exploitation and sexual abuse of children as they deserve nothing less.

WHAT WE DO
ACCEPTING REPORTS FROM THE PUBLIC

Over the past 15 years, Cybertip.ca has operated as Canada's tipline for reporting concerns about online sexual exploitation of children. Often representing the public's first point of contact, the tipline provides an easy and anonymous way for Canadians to report.

Cybertip.ca accepts reports regarding:

- Child sexual abuse material (child pornography)
- Online luring
- Children exploited through prostitution
- Offenders who travel to sexually abuse children (child sex-tourism)
- Child trafficking

- Making sexually explicit material available to a minor
- Agreement or arrangement between two individuals to commit a sexual offence against a child
- Non-consensual distribution of intimate images

Cybertip.ca plays a key role in assessing and triaging reports, thereby reducing the burden that would otherwise be placed on law enforcement agencies (e.g., addressing complaints and information requests that do not reside in their jurisdiction, require an educational response or do not involve a criminal offence).

As police resources are limited, Cybertip.ca reduces work load for child exploitation units across Canada so their efforts can be dedicated to investigating crimes in their jurisdiction.

OVER THE PAST 15 YEARS:

48% of all reports submitted to Cybertip.ca have been forwarded to law enforcement, child welfare and/or INHOPE or notices were sent to the electronic service provider (ESP) where reports related to child sexual abuse material were hosted by a service provider

Only **15%** of the reports that have been forwarded to law enforcement agencies stay within Canada

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OUR RESULTS OVER 15 YEARS

TOTAL REPORTS RECEIVED

266,000+

490+

CHILDREN REMOVED FROM ABUSIVE ENVIRONMENTS

TOTAL REPORTS FORWARDED TO A CANADIAN LAW ENFORCEMENT AGENCY

19,000+

TOTAL REPORTS FORWARDED TO CHILD WELFARE

560+

ARRESTS EXECUTED BY LAW ENFORCEMENT IN CONNECTION WITH A CYBERTIP.CA REPORT

520+

EDUCATION MATERIAL DISTRIBUTED ACROSS CANADA

14,500,000+ pieces

DIRECT EDUCATIONAL REQUESTS

10,000+

TOTAL REPORTS FORWARDED INTERNATIONALLY THROUGH NCECC

14,000+

EDUCATIONAL SITE PAGE VIEWS

24,000,000+

32,000+

UNIQUE URLS ADDED TO CLEANFEED

TOTAL REPORTS FORWARDED TO AN INHOPE MEMBER HOTLINE

52,000+

50,000+

TOTAL REPORTS WHERE NOTIFICATION WAS SENT TO ELECTRONIC SERVICE PROVIDERS

CHILDREN PROTECTED

COUNTLESS

totals from inception to September 1, 2017

SUCCESS STORIES

In Spring of 2015, Cybertip.ca received a report from a concerned parent regarding an incident involving his/her child. The youth was coerced to share sexual images with an online user who represented himself/herself as a teenager. The user subsequently threatened to distribute the images online if the youth did not comply with the suspect's demands for more images. A Cybertip.ca analyst completed various supplemental searches and forwarded the information to the Toronto Police Service. Further investigation by the Toronto Police Service led to the suspect (an adult male) being identified, arrested, and charged with over 400 *Luring, Making Child Pornography, Possessing Child Pornography* and *Extortion* charges involving multiple counts in Toronto and Quebec. The suspect subsequently pled guilty to offences against over 80 victims (some of whom were not identified), resulting in over 270 convictions. The remaining charges were dropped.

1 arrest   **400** charges   **80** victims

In early 2014, Cybertip.ca received a report regarding an individual who was allegedly sharing sexually explicit images with a youth. At the time the report was made, information in the report suggested that the suspect and youth were still communicating and that the suspect also had access to other children. The report was immediately forwarded to RCMP/Halifax Police Integrated ICE Unit and child welfare. The following day, RCMP/Halifax Police Integrated ICE Unit arrested a male and charged him with *Luring, Making Child Pornography* and *Making Sexually Explicit Material Available to a Child.*

1 arrest   **1** youth removed from a dangerous situation

Model in image and intended as illustrative.

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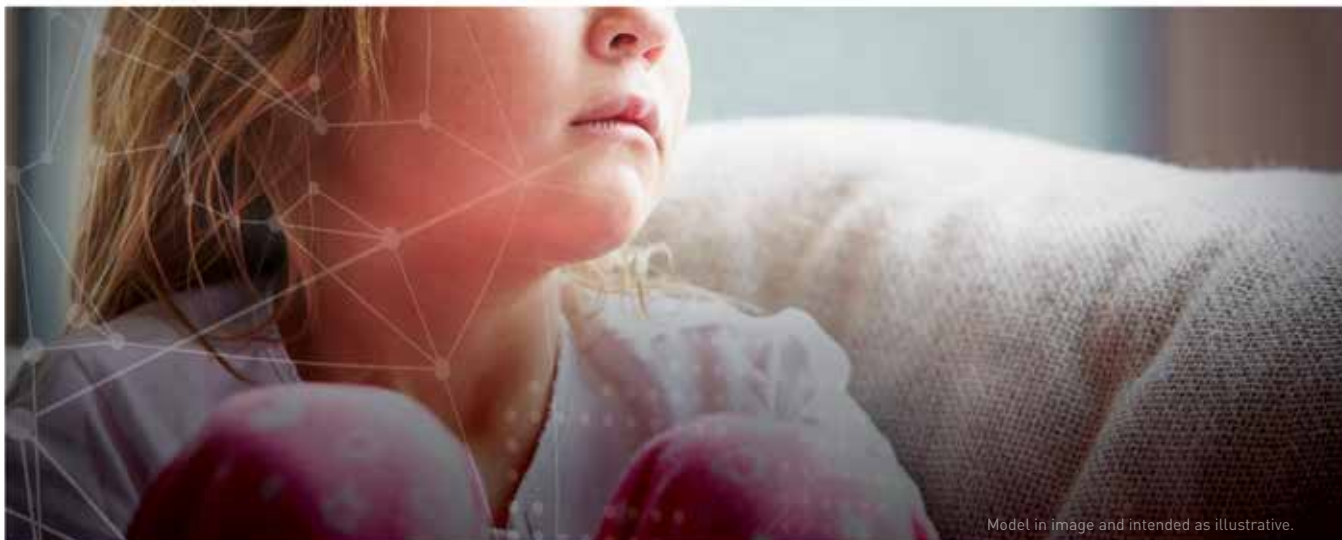
In late 2013, Cybertip.ca received a report regarding an individual who was allegedly seeking a male to sexually abuse children. The reported suspect, who may have sexually abused one of his own teenaged daughters, may also have been considering sexually abusing another young daughter. The report was processed by Cybertip.ca and forwarded to the Hamilton Police Service. The police investigation resulted in a male individual, who was allegedly posing as a mother with two children, being arrested for charges including *Making Child Pornography* and *Accessing Child Pornography.* The suspect had access to two young children who were removed from a potentially abusive situation.

1 arrest   **2** young children removed from a potentially abusive situation

At a press conference on November 14, 2013, Toronto Police Service, with representation from Cybertip.ca, Canadian and international law enforcement agencies, announced the known results of a massive investigation called Project Spade. Reports made by the public to Cybertip.ca helped identify websites that led to police agencies arresting hundreds of offenders and removing numerous children from abusive environments. Since the announcement, Toronto Police Service has been made aware of at least 400 arrests executed around the world and over 400 children removed from sexual abuse. In Canada alone, more than 100 individuals were arrested in connection with Project Spade, many of whom were in professions or volunteer work that provided close contact with children such as teachers, doctors, police officers, foster parents and priests.

400+ arrests   **400+** children removed from sexual abuse

Model in image and intended as illustrative.

THE EVOLUTION OF CYBERTIP.CA

For the past 15 years, Cybertip.ca has played an integral role in reducing online child sexual exploitation and abuse. Milestones include:

- Launched as a pilot initiative in September 2002 in response to the growing problem of child sexual exploitation on the internet

- In May 2004, following a successful pilot phase, Cybertip.ca was adopted under the Government of Canada's *National Strategy for the Protection of Children from Sexual Exploitation on the Internet*

- In July 2004, the Canadian Coalition Against Internet Child Exploitation (CCAICE) was formed. Chaired by Cybertip.ca, CCAICE is a voluntary multi-sector group of industry, government, non-governmental and law enforcement stakeholders from across the country working to address the problem of online child sexual exploitation

- In January 2005, Cybertip.ca was officially announced as Canada's national tipline alongside the Deputy Prime Minister and Attorneys General from across Canada

- In 2005, Cybertip.ca was voted in as a member of INHOPE (International Association of Internet Hotlines), working in collaboration with similar hotlines around the world

- In November 2006, Cleanfeed Canada was announced whereby Cybertip.ca provides a URL list to participating ISPs who voluntarily block access to prepubescent child sexual abuse content hosted outside Canada

- In April 2009, Cybertip.ca was named by regulation as the designated reporting entity under Manitoba's mandatory reporting of child pornography within the *Child and Family Services Act*

- In December 2011, the federal mandatory reporting of child pornography by providers of an internet service was enacted and Cybertip.ca was designated as the reporting entity under section 2 of the regulations

- In January 2016, Cybertip.ca was named the designated reporting entity for receiving and responding to requests from Manitobans negatively impacted by the non-consensual distribution of an intimate image

- In January 2017, Cybertip.ca announced Project Arachnid — an automated crawler that helps detect child sexual abuse material and reduce its online availability by issuing notices to service providers for removal

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IMPACT ON REPORTING

Over the years, reporting into Cybertip.ca has substantially increased. This can be attributed to greater public awareness of the issue, increased referrals from law enforcement and child welfare, as well as the growing proliferation of child sexual abuse material online.

Past 5 Years of Reporting to Cybertip.ca:

Year	Reports
2012	23,481
2013	25,575
2014	33,082
2015	37,352
2016	39,714

Of the **212,216 REPORTS** Cybertip.ca received as of December 31, 2016, 75%[4] of those were submitted within the last 5 years.

In 2017, Cybertip.ca is projecting processing **90,000 REPORTS**. This substantial increase is mainly attributed to Project Arachnid automatically detecting child sexual abuse material and, to a lesser extent, an average increase in reporting by the public of approximately 10% per year.

Top 5 Reporting Provinces to Cybertip.ca:

Province	Reports
ON	28,166 (42.9%)
QC	11,396 (17.4%)
AB	8,003 (12.2%)
BC	5882 (9.0%)
MB	5025 (7.7%)

[4] 159,204 from January 1, 2012 to December 31, 2016 (53,012 from September 26, 2002 – December 31, 2011)

Reports Submitted to Cybertip.ca

- **96.3%** of reports submitted related to material that was believed by the reporting person to be child sexual abuse material

- Of the remaining **3.7%** of reports submitted to the tipline, **1.9%** pertained to concerns of a child possibly being lured online

Triaging of Reports by Cybertip.ca

- **45.7%** of the reports assessed by a Cybertip.ca analyst were related to child sexual abuse material (child pornography)

- Another **5.0%** of the reports related to other incidents of child sexual exploitation or abuse

Image Assessment by Analysts

- Cybertip.ca has assessed close to **260,000** images

- Of those **260,000** images, **105,000+** related to child sexual abuse material and another **68,000+** were sexually exploitative images of children (e.g. sexualized child modelling, images of children nude on a beach, etc.)

Other Statistics

- **30,000+** total unique URLs have been added to Cleanfeed Canada since its inception in November 2006

- Notices have been issued to ESPs on more than **125,000** URLs

Model in image and intended as illustrative.

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SCOPE OF THE ISSUE

HOW PREVALENT IS CHILD SEXUAL ABUSE?

In 2014, Statistics Canada conducted a general social survey of Canadians that included a sample size of approximately 33,000 individuals over the age of 15. Specific questions asked respondents to self-report victimization taking place in their childhood (before they turned 15). The results revealed that **8% of the respondents self-reported childhood sexual abuse** — a figure that corresponds to approximately **2.4 million Canadians** having been sexually victimized as children.[5] As this figure captures only those who were open to disclosing their victimization to a Statistics Canada representative over the phone, it is likely an under-representation of the true number of Canadians who were victimized by childhood sexual abuse before the age of 15.

WHAT ARE CYBERTIP.CA ANALYSTS SEEING EVERY DAY?

Cybertip.ca child protection analysts are on the frontline of witnessing what far too often the public struggles to face as a serious problem in our society — offenders sexually abusing very young children and recording it for others to view and consume on the internet. In January 2016, the Canadian Centre released its study *Child Sexual Abuse Images on the Internet: A Cybertip.ca Analysis.* The information in this report raised significant concerns around offenders' sexual interest in very young children and the risks posed to children by those who access, possess, share or create such images.

The study assessed the information received through reports to the tipline from 2008-2016, with a particular focus on child sexual abuse images. Specifically, the study was based on the review of close to 152,000 reports and 43,762 unique images and videos classified by Cybertip.ca as child sexual abuse imagery.
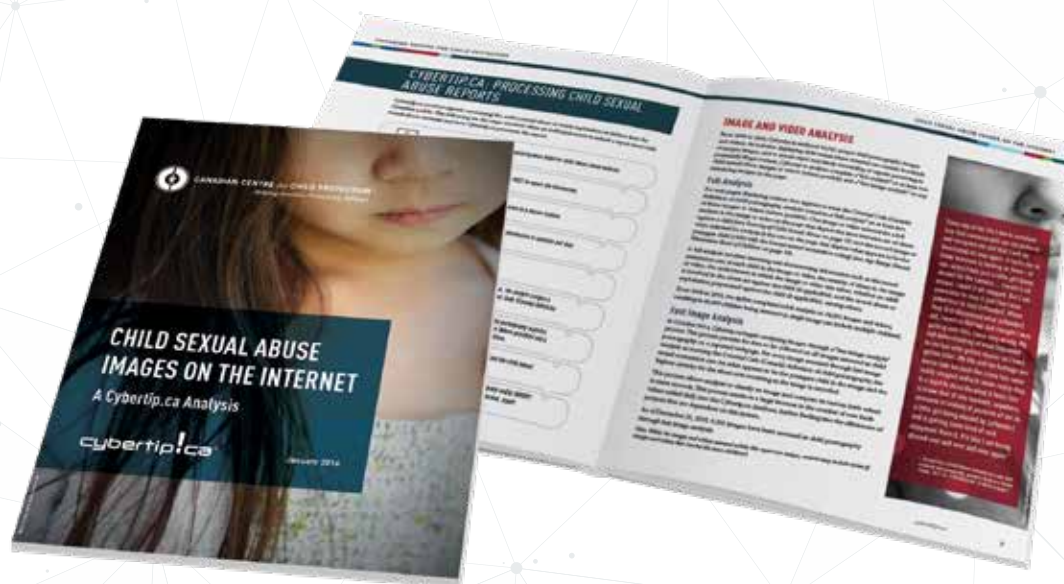
[5] Statistics Canada. *Family violence in Canada: A statistical profile, 2015.* http://www.statcan.gc.ca/daily-quotidien/170216/dq170216b-eng.pdf

Key findings from *Child Sexual Abuse Images on the Internet: A Cybertip.ca Analysis* include:

- **80%** of the children were girls

- **78%** of the images and videos assessed depicted very young, prepubescent children under 12 years old:

  - **63%** of those children under 12 years old appeared to be under 8 years of age
  - Nearly **7%** of those children under 8 years old appeared to be babies or toddlers
  - **54%** of the abuse acts against children under 12 years of age involved explicit sexual activity/assaults and extreme sexual assaults

- Close to **70%** of the images and videos appeared to be in a home setting

- **83%** of the adults visible in the images and videos were males

!

Cybertip.ca analysts have flagged disturbing trends that have evolved into groundbreaking child protection initiatives. One such trend involves the offending community discussing public facilities, especially pools, as hotspots for voyeuristic activities that can involve the use of phones, cameras and easily concealable recording devices. In the last two years alone, Cybertip.ca has processed hundreds of websites dedicated specifically to offenders posting surreptitious recordings of children in public facilities such as pools, change rooms, showers and washrooms.

In the summer of 2015, the Winnipeg City Council approved a motion to work with the Canadian Centre on the *Civic Facilities Child Safety Initiative.* The City of Winnipeg made the commitment to increase child safety with the enhancement of policies, procedures and practices; the implementation of staff training; and the execution of a public awareness campaign in certain city-operated facilities. This initiative is the first municipal-level public safety program in Canada that focuses explicitly on the prevention of child abuse and exploitation in aquatic facilities, recreation and leisure facilities and libraries.

Results to date:

- 800+ public awareness signs
- 1,400+ front-line staff and managers trained
- Enhanced protocols for managing inappropriate behaviour

SUPPORTING THE HEALTH AND WELL-BEING OF CYBERTIP.CA ANALYSTS

Throughout the years, the Canadian Centre has prioritized the health and well-being of staff working in the Cybertip.ca environment and continues to look at ways to advance or augment existing practices. There are a number of psychological and technical measures in place to support the child protection analysts. They include, but are not limited to:
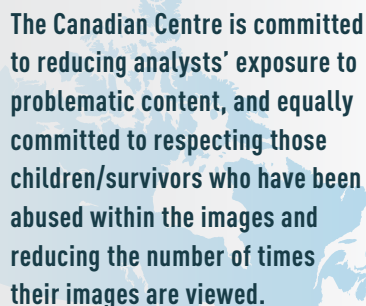
Psychological support:

- Mandatory team session once per month with a psychological health service provider — analysts are not required to return to the office
- Voluntary individual session once per month with a psychological health service provider
- Regular breaks and varied tasks away from report processing
- Restrictions on time allotted working in the image classifier for Project Arachnid
- Analyst mentoring — one-on-one pairing with senior analysts to provide support
- Five health and wellness days per fiscal year
- Working in an open concept environment, which allows for transparent conversation

Management support:

- Paying attention to behavioural factors that may signal distress or difficulties among analysts (e.g., physical, emotional, social changes)
- Supervisor check-ins at least once per month to discuss any issues arising or cues that an issue may be present
- Offering health and wellness sessions through parental leave where needed
- Management/senior team present within the analyst work environment
- External team-building activities

Technology support:

- Fast image analysis: Implementing tools for rapid image assessment to reduce prolonged exposure to the material
- Automated report processing: website reports that display images previously seen by Cybertip.ca are automatically triaged and sent to the appropriate location to reduce unnecessary exposure to analysts
- Image blocking within the internal system to reduce exposure to the material (also includes adult pornography content). On any given day, as many as 550 images are blocked within the internal system when analysts view website content

!

The Canadian Centre is committed to reducing analysts' exposure to problematic content, and equally committed to respecting those children/survivors who have been abused within the images and reducing the number of times their images are viewed.

COMMITMENT TO INNOVATION

Over the past decade, the role of technology in facilitating sexual offences against children has significantly evolved, as has our understanding of sexual offending behaviour and the manifestation of these activities on the internet. While human intervention in processing child sexual exploitation reports will always be required, Cybertip.ca recognizes the importance of leveraging technology and implementing innovative solutions to disrupt the online sexual exploitation and abuse of children. Throughout the years Cybertip.ca has become one of the world leading hotlines in regularly assessing and improving operational efficiencies and developing systems to aid in the intervention process. Examples include:

INCREASING THE VOLUME OF HASH[6] VALUES TO DISRUPT THE TRADING OF CHILD SEXUAL ABUSE MATERIAL:
In 2006, Cybertip.ca began collecting cryptographic hashes for the images assessed as child sexual abuse material by analysts within the tipline. While the initial collection was fairly limited, Cybertip.ca has significantly increased capacity and collection methods throughout the years to create a database of hash values that is the backbone of many other technically innovative solutions (noted below) for combatting child sexual abuse material online.

REDUCING ACCESS TO CHILD SEXUAL ABUSE MATERIAL WITHIN CANADA:
In 2006, Cleanfeed Canada was implemented as a tool to reduce Canadians' exposure to child abuse images and create a disincentive for those who access and distribute child sexual abuse material. Cybertip.ca amasses and maintains a list of child sexual abuse websites meeting the criteria for inclusion on the list and regularly provides the list to participating Internet Service Providers in a secure manner.

REDUCING ANALYSTS' EXPOSURE TO CONFIRMED CHILD SEXUAL ABUSE MATERIAL:
In 2008, Cybertip.ca developed and implemented a system to reduce analyst exposure to child sexual abuse material by blocking images in real-time when an image had been previously assessed as child sexual abuse material. This provides analysts relief from viewing the same images over and over again while also allowing them to focus their assessment on new or previously unseen images on a website.

ADDRESSING SECURITY ISSUES ASSOCIATED WITH SITES INVOLVING CHILD SEXUAL ABUSE MATERIAL:
In 2008, Cybertip.ca began utilizing a virtual environment for the purposes of assessing reported material. Cybertip.ca analysts use an isolated virtual environment as many of the sites they visit present security risks such as viruses and malware. In addition to this, the isolated environment prevents child sexual abuse material from being temporarily downloaded to their internal workstations. The virtual machines also access the internet in a manner that is not directly attributable to Cybertip.ca.

[6] A 'hash value' is a digital fingerprint of a file (e.g., image, video, etc.) created through an algorithm.

Model in image and intended as illustrative.

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LEVERAGING TECHNOLOGY TO MONITOR REMOVAL OF CHILD SEXUAL ABUSE MATERIAL:
In 2010, the 'Crockpot' was developed by Cybertip.ca to automatically monitor the removal of child sexual abuse material on those websites reported to Cybertip.ca.

ARCHITECTING AN ADAPTABLE ANALYSIS SYSTEM FOR THE GROWING ISSUE OF CHILD SEXUAL EXPLOITATION:
In 2012, Cybertip.ca began using the third version of its report management system (CDB3), which was built with the capacity to be adaptable to the changing needs of the tipline as time progressed.

LEVERAGING TECHNOLOGY TO AUTOMATE REPORTS INVOLVING CONFIRMED CHILD SEXUAL ABUSE MATERIAL:
In 2014, the automator function was added to CDB3. Approximately 50% of the reports submitted to Cybertip.ca are automatically forwarded to the appropriate jurisdiction when the system detects that a reported URL contains a known image of child sexual abuse material.

INSTITUTING NOTICE AND TAKEDOWN FOR THE REMOVAL OF ILLEGAL CONTENT:
In 2014 Cybertip.ca created its initial notice and takedown system within CDB3 — first piloted within Canada and since expanded to other countries such as the United States.

LIMITING THE TIME THAT ANALYSTS ARE EXPOSED TO CHILD SEXUAL ABUSE MATERIAL:
In 2014, the fast image analysis process was added to CDB3 for analysts to assess and flag the most egregious child sexual abuse material within a matter of seconds.

REDUCING THE AVAILABILITY OF CHILD SEXUAL ABUSE MATERIAL:
In 2016, Cybertip.ca created Project Arachnid — an automated system for detecting child sexual abuse material and triggering notices to hosting providers for removal.

Model in image and intended as illustrative.

PROJECT ARACHNID

Project Arachnid is an automated system that crawls links on sites previously reported to Cybertip.ca that contained child sexual abuse material and detects where these images/videos are publicly available on the internet. If illegal content is detected, a notice is sent to the provider hosting the content requesting its removal.

Project Arachnid represents a victim-centric model for reducing the availability of child sexual abuse material on the public internet — for both identified and unidentified victims. We know from adult survivors whose sexual abuse was recorded as children that the ongoing sharing and public accessibility of their abuse images are among the most difficult aspects of the abuse to overcome.

ANTICIPATED GLOBAL OUTCOMES OF PROJECT ARACHNID

Offering psychological relief to victims: *Arachnid helps to address the very real fear that someone survivors know may come across an image of their abuse on the internet.*

Ability to alert law enforcement when an alleged "not distributed" image has been detected: *Arachnid detects known images that were previously thought to not have been distributed on the internet.*

Assisting industry in preventing child sexual abuse material from entering their networks: *Creating an application program interface (API) for industry to access hash values of known images as well as to share with Arachnid new content they may have come across on their networks.*

Early detection of content for triggering notice and takedown: *Using Arachnid to detect the availability of content expedites its removal and is far more effective and efficient than human intervention.*

Augmenting international victim identification efforts: *Detecting new images for some of the most popularly traded series of child sexual abuse material not listed in the international databases used by law enforcement and other hotlines.*

We believe the most important outcome of Project Arachnid will be the psychological relief it affords survivors who have had no control over the distribution and ongoing sharing of their recorded sexual abuse. For the first time, we are offering survivors some comfort in the knowledge that there is a system in place designed solely to find and trigger the removal of this illegal content.

protectchildren.ca/app/en/csa_imagery-arachnid

WHAT HAVE WE LEARNED?

CHILD SEXUAL ABUSE AND THE RECORDING OF THE ABUSE IS A SIGNIFICANT PROBLEM IN OUR SOCIETY:
Project Arachnid is currently discovering approximately 80,000 unique images per month that require analyst assessment and this number has been steadily increasing each month by 5% to 18%. Analyst assessment is triggered when Project Arachnid comes across a webpage with images that are suspect in nature. Other images on the page are also reviewed as they are likely to involve child sexual exploitation.

TAKEDOWN TIME MUST BE TAKEN INTO ACCOUNT WHEN ASSESSING THE GLOBAL NATURE OF CHILD SEXUAL ABUSE MATERIAL ONLINE:
Traditionally, the focus has been placed on where child sexual abuse material is sitting geographically and on the electronic service providers where it appears. This approach is flawed in that the largest providers dealing with the highest volume of user generated content will always have the highest number of offences. The focus should be put on creating tools to prevent the movement of known content, as well as facilitate the quick takedown times when child sexual abuse material is found.

PLATFORMS UTILIZED FOR OFFENDING BEHAVIOUR CHANGE BUT BEHAVIOUR TENDS TO STAY THE SAME:
While the platforms utilized by offenders have changed over time, we see commonalities in the behaviours within the offending community across platforms. Forums, chatrooms and social media platforms are used to share ideas on offending, grooming and child sexual abuse material while also providing avenues to exchange this material.

ANALYSTS WITNESS OFFENDERS' ONGOING INTEREST IN SOME OF THE CHILD VICTIMS:
Within internet relay chat (IRC) channels and chat forums, it is not uncommon for analysts to read about offenders' ongoing interest in certain child victims, even once those survivors have become adults. Posting legal images of the survivor as a now adult, such as a family photo, is just one example of this disturbing behaviour.

BLOCKING THE UPLOAD OF KNOWN ILLEGAL MATERIAL IS PREFERABLE FOR THOSE SERVICES PRONE TO HAVING ITS SERVICE ABUSED:
While notice and takedown is critical, for some whose service may be prone to abuse (e.g., image hosts), preventing the upload of known illegal content is a preferable approach when possible.

Model in image and intended as illustrative.

WHAT HAVE WE LEARNED? (CONTINUED)

IT IS CRITICAL TO RECOGNIZE WHEN TECHNOLOGY SHOULD BE LEVERAGED VERSUS WHEN HUMAN ASSESSMENT IS REQUIRED:
The use of cryptographic hashes immensely aids in the detection of child sexual abuse material that has been previously assessed by analysts within the tipline. It not only allows us to reduce the exposure of analysts to very difficult material, but also provides the tipline the opportunity to minimize the harm and re-victimization of the child displayed in the material by reducing the continued viewing of that material.

IT IS ESSENTIAL TO CATEGORIZE HASHES IN ACCORDANCE WITH HOW THEY ARE BEING UTILIZED:
There are many international image/hash databases being utilized in the investigation of child sexual exploitation. Images and the associated hash values within these systems have varying purposes: including but not limited to victim identification, forensic analysis and issuing notices to electronic service providers for removal of the material. Distinguishing between the type of hash and its intended use will aid all those working to both identify victims and reduce the availability of this illegal material.

IT IS IMPORTANT TO DISTINGUISH IDENTIFIED VICTIMS OF CHILD SEXUAL ABUSE FROM IDENTIFIED VICTIMS OF SEXTING/SEXTORTION-RELATED INCIDENTS:
There is a critical need to build a framework surrounding age verified pubescent child sexual abuse material in order to trigger notices to providers that will be acted upon. It is also important for those working in this space to distinguish between tween/teen self-generated images and those involving child sexual abuse, given the distinct nature by which each of these issues are tackled.

Model in image and intended as illustrative.

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IN AN EFFORT TO IDENTIFY AND RESCUE UNIDENTIFIED VICTIMS, HOTLINES SHOULD KNOW WHICH CHILDREN IN IMAGES/VIDEOS HAVE BEEN IDENTIFIED:

Reducing harm and victimization to the identified and unidentified children within child sexual abuse material is a critical goal of hotlines around the world. The approach hotlines take to meet this objective varies depending on whether the child in the image has been identified or not. For children who have been identified and rescued, a model of notice and takedown is first and foremost to reduce availability and positively impact their psychological health and well-being. However, in situations where a child has not been identified, it is far more important to focus on information within the material and data surrounding its sharing in an effort to identify and rescue that child from an abusive environment.

ANALYSTS ARE SEEING AN INCREASE IN THE INVOLVEMENT OR MENTION OF FEMALES CONNECTED TO THE ABUSE:

Whether it involves advertisements offering their children up for abuse, participating in the abuse acts within the imagery/videos, being present while the abuse is occurring, or being notified of a woman being complicit in the abuse — analysts are seeing an increase in concerns associated with adult women. This increase is also reflected in reported Canadian case law.

PUBLIC EDUCATION IS ESSENTIAL IF WE ARE TO SIGNIFICANTLY REDUCE CHILD SEXUAL ABUSE AND EXPLOITATION:

Efforts must be focused on preventing child sexual abuse from occurring in the first place so offenders' opportunities to record and share the abusive material with others is limited. For this to occur, adults around children need to be educated about how to recognize inappropriate behaviour and recognize situations that present risk if we are to reduce and intervene where warranted to disrupt the abuse process.

Model in image and intended as illustrative.

PUBLIC EDUCATION AND AWARENESS

Cybertip.ca is also committed to providing the public with information and resources, as well as support and referral services to help Canadians keep themselves and their families safe while using the internet. We offer print and online resources for parents, children, law enforcement, educators and other professionals who intersect with children that address online safety issues from early childhood into adolescence. To date, we have distributed over 14.5 million pieces of child protection educational materials to Canadians.

RECENT RESOURCE HIGHLIGHTS

NeedHelpNow.ca: A website dedicated to helping tweens and teens stop the spread of sexual pictures or videos

dontgetsextorted.ca: A humorous, yet insightful, website to help teens prevent and fight sextortion

Self/Peer Exploitation: *Resource Guide for Families* created to assist parents in adequately responding to incidents of self/peer exploitation

Parenting Tweens and Teens in the Digital World: A brochure designed to provide information about how tweens and teens are using digital devices and what parents can do to make it safer

14.5+ MILLION pieces of educational resources distributed.

In 2013, Cybertip.ca created Cybertip.ca Alerts. These alerts are notifications sent out to inform the public of concerning technology trends and new resources designed to increase children's personal safety.

A 2017 Cybertip.ca Alert led a mother in the United States to discover her eight-year-old son was in contact with a potential sexual predator who was pretending to be another child on an online social game for children. The mother filed a report with her local sheriff's department and handed over the family tablet to investigators.

Cybertip.ca is a program operated by the Canadian Centre for Child Protection

A key component to combatting the online sexual exploitation of children is raising the public's awareness of both the seriousness of the problem and where to report content. Since 2005, Cybertip.ca has conducted 20 national and regional public awareness campaigns, each focusing on the different trends we have observed tied to online child sexual exploitation as it has evolved over time.

Webcam campaign — 2005

Our little secret campaign – 2008

Turn outrage into action – 2014

I reported it campaign – 2010

Every click campaign – 2016

Non-Consensual Distribution of Intimate Images campaign – 2016

8 CYBERTIP.CA ALERTS
issued regarding concerning
technology trends

20 public awareness
campaigns relating to online
sexual exploitation
of children

LOOKING AHEAD
ROLE OF CYBERTIP.CA ANALYSTS

With the development of Project Arachnid, the tipline is now in a very different place in relation to addressing content and for what purpose. First, we no longer specifically promote the strategy of the public reporting websites concerning child sexual abuse material as the sole solution to this problem. Project Arachnid has clearly demonstrated that technology is far more effective at detecting where content is on the public internet than public reporting could ever achieve. Where the public can make a serious difference in preventing/disrupting the efforts of those with a sexual interest in children is by reporting concerning adult behaviour and potential victims. As such, the role of analysts has shifted particularly in the last few years to include a greater focus on:

- Tending to reports involving more detailed information associated with potential child victims and/or possible suspects

- Assessing a higher volume of child sexual abuse images for the purpose of feeding into Project Arachnid

- Assisting in the evolution of the Project Arachnid crawl by feeding valuable information to the IT team tied to observations made during the processing of public reports

- Prioritizing images and videos of unidentified victims who have never been seen before and the data surrounding their sharing in an effort to help authorities identify and rescue those children from abusive environments

- Providing more in-depth guidance to families and/or youth currently dealing with incidents of online exploitation

- Identifying trends related to the online sexual exploitation of children for the purpose of sharing with the Canadian Centre Education team, issuing press releases and Cybertip.ca Alerts

Screenshot of Robert Cribb article on thestar.com. Photo credit: Lyle Stafford.

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ROLE OF TECHNOLOGY

The Canadian Centre aspires to have one of the most robust and extensive databases of child sexual abuse material hash values in the world for the purpose of reducing the online availability of this material. In collaboration with other hotlines, Project Arachnid will increase the quality of hashes, reduce duplication and exposure to analysts assessing this material, and — most importantly — reduce the online victimization of children. This database of hash values will be made available to any organization that is able to use the data in a way that will reduce the online availability of this material.

Technologies related to video hashing and machine learning are some leading areas of development in the fight against online child sexual abuse material. As technology for hashing and identifying images and videos evolves, Cybertip.ca will look to implement these technologies within Project Arachnid to enhance detection. Cybertip.ca will also look to utilize new technologies in prioritizing images and videos of unidentified victims who have never been seen before.

Through continued collaboration with industry, Cybertip.ca will look to enhance the notices issued to service providers and explore ways to increase technological efficiencies in having service providers remove content in a rapid fashion. We are also looking at building an API for industry that allows service providers to prevent users from uploading this material to their services, as well as building into Project Arachnid an early warning system for material that has not been previously seen.

Model in image and intended as illustrative.

SUPPORTING OUR WORK OVER THE YEARS

Since its inception, the Canadian Centre's Cybertip.ca program has been generously supported by government, law enforcement, private sector and other like-minded organizations. As we look forward, we want to take a moment to say thanks to Cybertip.ca's key supporters. Each have made important and unique contributions that have directly had an impact on the success of this essential service for Canadians.

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Royal Canadian Mounted Police

VANCOUVER POLICE DEPARTMENT
Beyond the Call

VICTORIA POLICE

Sûreté du Québec

Service de police Ville de Saint-Jérôme

Niagara Regional Police Service

Alberta Law Enforcement Response Teams

Winnipeg Police Service

Brandon Police Service

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