Online Child Sexual Abuse Imagery: Threats and Responses

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What is the IWF?

- An international hotline for reporting and removing online *criminal* child sexual abuse images and videos.

- Our vision is the global elimination of child sexual abuse imagery online.

- We offer a place to securely and anonymously report this content.
What type of organisation are we?

• Industry self-regulatory body.

• Charity, not-for-profit organisation.

• Funded by internet industry Members and European Union (EU).

• Founder Member of the International Association of Internet Hotlines (INHOPE).

• Independent of government and law enforcement.
What do we do?

• Actively search for child sexual abuse images and videos on the public internet.

• Work with global industry partners worldwide to remove images of child sexual abuse and stop them from being spread further.

• Share our expertise and play an active role in the UK Safer Internet Centre.

Every 4 minutes we assess a webpage.
Every 7 minutes we find images and videos of children being sexually abused.

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Reports

- 57,674 reports from public
- 35% within remit
- 65% not within remit

2017:
- Reports processed: 80,319
- Reports containing criminal content: 132,636

2016:
- Reports processed: 59,550
- Reports containing criminal content: 105,420
Where is content hosted?

Top five countries

Top 5 countries

<table>
<thead>
<tr>
<th>Country</th>
<th>% 2016</th>
<th>% 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL</td>
<td>37</td>
<td>36</td>
</tr>
<tr>
<td>US</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>CA</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>FR</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>RU</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

The majority of all child sexual abuse URLs we identified in 2017 were hosted in these top 5 countries.
## Where is content hosted?

<table>
<thead>
<tr>
<th>Type</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image host</td>
<td>78.7</td>
<td>73.6</td>
<td>69</td>
</tr>
<tr>
<td>Cyberlocker</td>
<td>10.3</td>
<td>11.1</td>
<td>14</td>
</tr>
<tr>
<td>Banner site</td>
<td>4.1</td>
<td>4.9</td>
<td>7</td>
</tr>
<tr>
<td>Forum</td>
<td>0.6</td>
<td>1.4</td>
<td>3</td>
</tr>
<tr>
<td>Website</td>
<td>2.2</td>
<td>1.6</td>
<td>1</td>
</tr>
<tr>
<td>Blog</td>
<td>0.4</td>
<td>1.5</td>
<td>1</td>
</tr>
<tr>
<td>Image board</td>
<td>1.5</td>
<td>3.0</td>
<td>1</td>
</tr>
<tr>
<td>Social Networks</td>
<td>1.0</td>
<td>1.1</td>
<td>1</td>
</tr>
<tr>
<td>Web archive</td>
<td>1.0</td>
<td>1.3</td>
<td>1</td>
</tr>
<tr>
<td>Video channel</td>
<td>0.3</td>
<td>0.5</td>
<td>1</td>
</tr>
</tbody>
</table>
Content Removal

UK online child sexual abuse content, % of the global

- 1996: 20% (18)
- 2003: 10%
- 2017: 0%

60 minutes or less
- 2016: 52%
- 2017: 38%

120 minutes or less
- 2016: 65%
- 2017: 53%

More than 120 minutes
- 2016: 35%
- 2017: 47%
Who are the victims?

These are real children

- 11 to 15 years: 43%
- 0 to 10 years: 55%
- 2% - 0 to 2 years
Who are the victims?

Girls 86%

Boys 7%

Both 5%
Severity of abuse

Category A: penetrative sexual activity, inc. rape and sexual torture
Category B: non-penetrative sexual activity
Category C: indecent images not in above categories
How do we respond to this?

- URL List
- Image Hash List
- Takedown Notices
- Simultaneous Alerts (US only)
- IWF Reporting Portals
- Keywords List
- Domain Alerts
- Payment Brands Alerts
- Newsgroups Alerts
- Research

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Trends and research

• April 2014 – IWF Hotline granted authority to proactively seek CSAM online

• Ability to more effectively fulfil remit and vision - how to ensure effectiveness?

• Research programme to identify key challenges/opportunities
  – Recycling/redistribution of child sexual abuse imagery
  – Commercial distribution of child sexual abuse imagery
  – Self-Generated / Youth Produced child sexual abuse imagery
Open Web vs “Dark Web”

- “Hidden services” (aka the “Dark Web”) - location-hidden websites in Tor proxy network
- Often dedicated forums linking to 1000’s of imagery on open-web image hosts/cyberlockers
- Imagery removed at source
- Added to hash list preventing further distribution
- Provide intel on emergent technologies/trends
Commercial child sexual abuse material

- **Affiliate fraud:**
  - URL accessed directly displays adult pornography
  - URL accessed via specific referrer displays CSAM
  - Payment page == identical URL
  - Affiliate receives payout

- **Click/impression fraud**
  - URL accessed directly displays adult pornography
  - URL accessed via specific referrer displays CSAM
  - Pop-unders for legitimate brands
  - “Invisible” clicks generated
Analysing commercial distribution

• “Whack-a-Mole” (same website, multiple URLs)
• 4,006 “brands” identified since 2009
• 8,974 commercial reports in 2017 (11%)
• 1,624 brands active in 2016 (1,263 “new”)
• “Key Identifiers” i.e. merchant accounts, contact details, Whois, hosting info, “look-and-feel”...
• <10 active “top level distributors”
• Analysis provided to Europol as intelligence
Captures of Live-Streamed Child Sexual Abuse

- Problems of terminology - “sexting”; “self generated”; “youth produced”; “sextortion”…
- Huge increase in online distribution in recent years (including commercial)
- Regular studies to monitor trends – latest study published May 2018
- Research Questions:
  - How do the methods of creation/distribution of captures of live-streamed child sexual abuse, the characteristics of the individuals depicted and the category of the sexual activity depicted vary in relation to the age ranges depicted?
  - Where are captures of live-streamed child sexual abuse being distributed? (Which platforms/site types?)
  - What can be learned from an examination of the characteristics of the individuals depicted and/or the distribution methods of this content which may inform strategies for disruption/intervention?
Captures of Live-Streamed Child Sexual Abuse

• “Captures of Live-Streamed Child Sexual Abuse” defined as:

  “Images or videos permanently recorded from a live broadcast stream; in which the child(ren) consciously interacted with a remote other(s); and which met the IWF threshold for action as child sexual abuse material”

• A “child” was defined as “an individual assessed as under the age of 18 years”

  • 0-2 years
  • 3-6 years
  • 7-10 years
  • 11-13 years
  • 14-15 years
  • 16-17 years

• Children assessed as 16-17 years only included where age independently verified
Captures of Live-Streamed Child Sexual Abuse

- Collected 2,082 images and videos from August – October 2017

- Key findings:
  - 96% of imagery depicted children on their own, typically in a home setting such as their own bedroom.
  - 98% of imagery depicted children assessed as 13 years or younger. (28% aged 10 or under)
  - 96% of the imagery featured girls.
  - 40% of the imagery was Category A or B.
  - 100% of the imagery had been harvested from the original upload location and was being redistributed on third party websites.
  - 4% of the imagery was captured from mobile-only streaming apps.
  - 73% of the imagery appeared on 16 dedicated forums with the purpose of advertising paid downloads of videos of live-streamed child sexual abuse.

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Captures of Live-Streamed Child Sexual Abuse

• Several scenarios identified during course of study

• Case Studies:
  
  • 7 year old “Sophie” – desperate for “likes”
  
  • 9 year old “Marie” - tricked into thinking she was chatting to a child
  
  • 12 year old Zoe – believed she had a secret boyfriend.
  
  • Younger children seemingly unaware of nature of acts coerced to perform or that they were being recorded
Captures of Live-Streamed Child Sexual Abuse

• Implications:
  • Younger children becoming vulnerable to this form of abuse.
  • Challenges common perception of “live distant child sexual abuse”.
  • Loss of control over content – all harvested from original broadcast service.
  • Children blackmailed and coerced to produce more severe material.
  • Lack of awareness of possible permanence of imagery captured from live streaming apps.
  • Increased commercialisation of captures of live-streamed child sexual abuse…
Captures of Live Streamed Child Sexual Abuse

• Dedicated forums with thousands of images and links to third party cyberlockers
  − “Affiliate” schemes pay uploaders for files downloaded…
  − Cyberlocker may be unaware
  − Payment processors unaware
  − Uploader profits for distribution
Captures of Live-Streamed Child Sexual Abuse

• Key recommendations:
  • Recognition of the need for awareness raising programs aimed at educating children and those in a parental role about the risks of live-streaming services;
  • Wider implementation of tools to tackle online distribution of child sexual abuse imagery by service providers;
  • Development of new services including video hashing technology to detect duplicate captures of live streamed child sexual abuse which have been redistributed online;
  • Recognition of legal loopholes facilitating distribution of child sexual abuse imagery and elaboration of policy proposals that can influence positive change.
Captures of Live-Streamed Child Sexual Abuse

• Resources for parents and carers
  • Safer Internet Centre (https://www.saferinternet.org.uk/advice-centre/parents-and-carers/have-conversation)
  • Childnet - Age appropriate resources for children and parents and carers (https://www.childnet.com/young-people/primary)
  • Self-reporting portal for older children – Childline/IWF (https://contentreporting.childline.org.uk/)
• Further resources and full report available at http://www.iwf.org.uk
Thanks for listening

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