



IWF
Internet
Watch
Foundation

Annual Report 2017

Sponsored by:



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About us

We work internationally to make the internet a safer place by minimising the availability of online child sexual abuse content.

We help victims of child sexual abuse worldwide by identifying and removing online images and videos of their abuse. We search for child sexual abuse images and videos and offer a place for the public to report them anonymously. We then have them removed.

We offer unique tools to our Members in the internet industry to help them protect their services from abuse.

We're a not-for-profit organisation and are supported by the global internet industry and the European Commission.

From the Home Secretary



“ This year has been one where the threat our children face, the generation and spread of online sexual abuse, continues to grow. We want to see Britain as the safest place to be online and the Internet Watch Foundation’s work is critical to our efforts to make this possible, efforts to which they bring twenty-one years of expertise and an ability to describe the changing nature of the threat with authority.

The IWF are global leaders in the proactive identification and removal of illegal child sexual abuse imagery. They are a key partner of the WePROTECT Global Alliance and are sharing hashes derived from the UK’s world leading Child Abuse Image Database with six major technology partners, to speed up their identification and removal.

I am encouraged that more of the public recognise child abuse material when they see it and are confident enough to report it, reflected in the statistics in this report. This

demonstrates the success of the partnership between the Internet Watch Foundation and others, to encourage reporting this heinous material and to ultimately secure its removal.

But there is clearly more that we need to do, with a worrying rise in material hosted in Europe, and the ever-evolving nature of offending as offenders exploit new vulnerabilities in the online environment to evade detection. We will continue to work together in our efforts to rise to this challenge and to evolve with it as we look to ensure the UK’s response remains as strong as it can possibly be.

”

The Rt Hon Amber Rudd MP
Home Secretary
United Kingdom

From the Prime Minister



“ I want to pay tribute to the crucial work of the Internet Watch Foundation and their partnership with industry, law enforcement and the Government in identifying and removing illegal child sexual abuse images from the internet. We will continue to work together to tackle this ever-evolving threat and to pursue our target of making the UK the safest place in the world to go online. ”

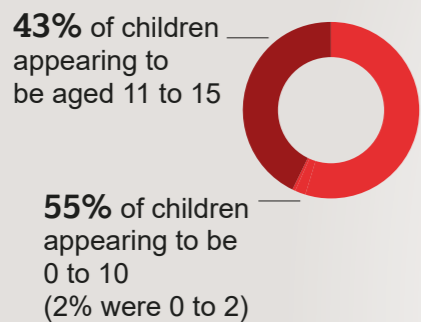
The Rt Hon Theresa May MP
Prime Minister
United Kingdom

We assess a webpage every four minutes.

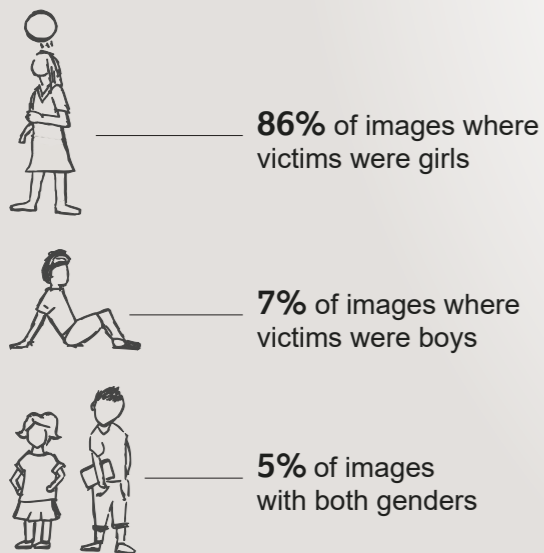


Every seven minutes, that webpage shows a child being sexually abused.

Age^{2,3}

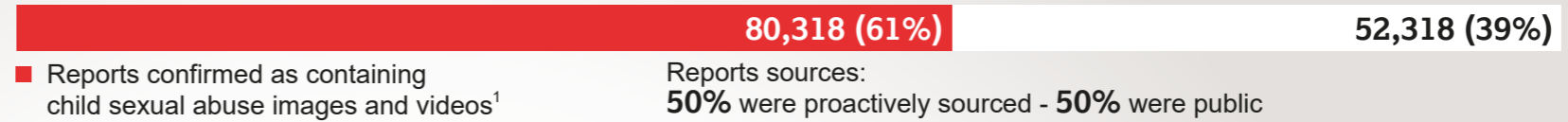


Gender⁴



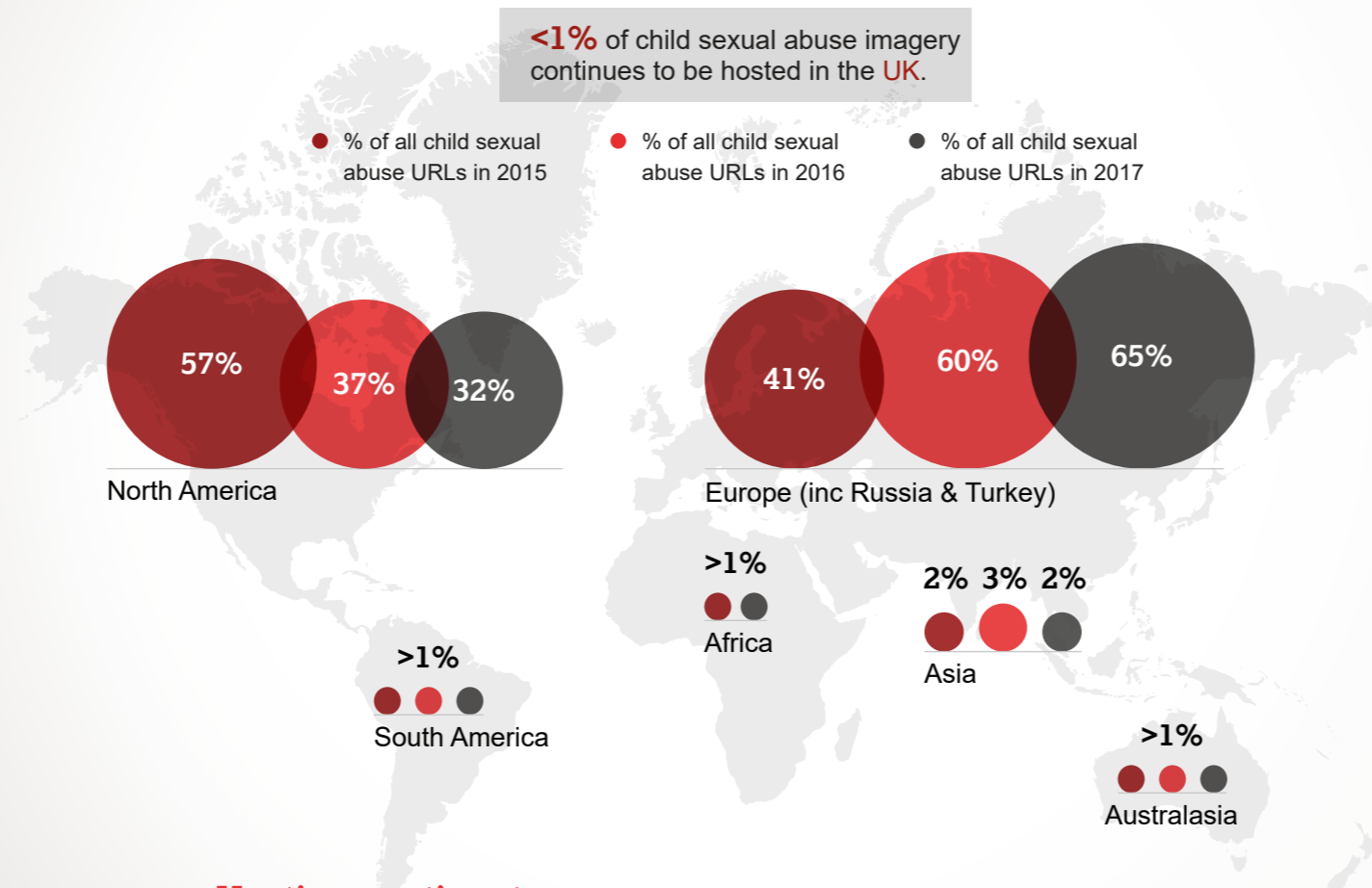
Reports processed in 2017

132,636 (26% increase on 2016)

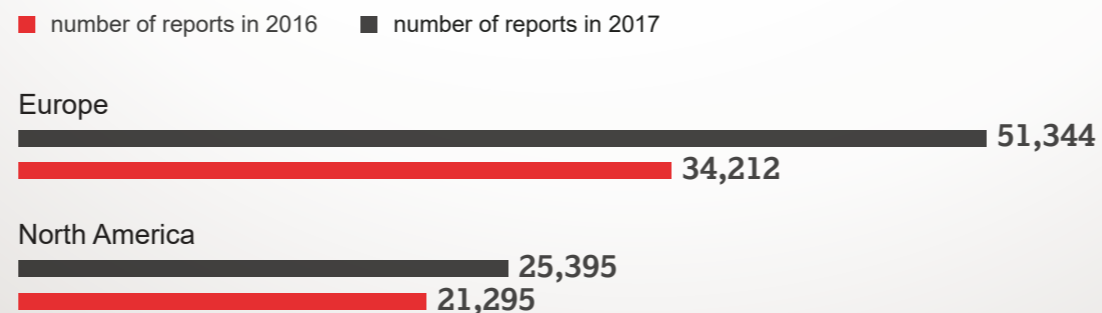


Continent hosting of all child sexual abuse URLs

An increasing amount of child sexual abuse imagery is being hosted in Europe, rather than North America – the trend continues from 2016 and the gap widens.

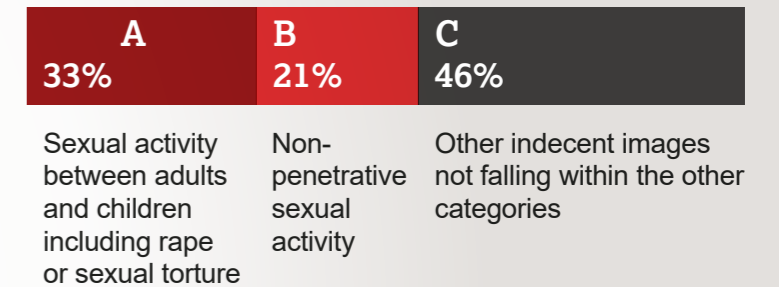


Hosting continent



>130 Members

Severity of images



New domain names and disguised websites are on the rise

57% on last year



More domain names than ever before are being used to show children being sexually abused.

We saw an 86% increase in the use of disguised websites.



These are websites where the child sexual abuse imagery will only be revealed to someone who has followed a pre-set digital pathway – to anyone else, they will be shown legal content.

1. One report could contain one, or thousands of images and videos.
 2. From the figure 0.36% were of 16/17 year olds.
 3. Please note: Percentages may contain a small variable due to URLs linking to child sexual abuse websites.
 4. Please note: A small number of the victims could not be identified as either male or female.

Our Members

£76,500+



£10,200+



£51,000+



£5,000+



£25,500+



£2,550+



£20,400+



£1,020+



£15,300+



Affiliate Members



Welcome from our Chair



“ Welcome to our 2017 Annual Report which gives the latest data on what’s happening globally to tackle online child sexual abuse imagery and the role that the IWF plays. The IWF identifies and removes online images and videos of child sexual abuse. In 2017 our team assessed a webpage every four minutes. Every seven minutes, that webpage showed a child being sexually abused.

2017 also marked the end of my term as Chair of the IWF following six years of working closely with the team and watching them grow in size and reputation. I am grateful to the other Trustees and staff team for all their service during this time. The IWF, rightly in my opinion, can call itself one of the world’s leading hotlines in terms of its effectiveness. The challenge of eliminating child sexual abuse online is a huge one, and one that will be extremely difficult to achieve, but this doesn’t

stop the team doing everything they can to meet this challenge. They are never complacent and are always looking for new ways to fight the problem, because they know that behind every single image, is a real child who has been sexually abused, and for every minute that image is available online, that child is being revictimised.

I want to pay particular tribute to the team of Analysts who do one of the most difficult jobs imaginable. They are very special people to whom we all owe a huge debt of gratitude.

Leading the IWF as Chair has been a genuine privilege and I leave with a sad heart but knowing that I leave it in the safe hands of my successor Andrew Puddephatt, to whom I wish the very best.

Sir Richard Tilt
IWF Chair 2011-2017



Welcome from our CEO

“ Once again our Hotline has broken new records in the number of webpages of child sexual abuse we have removed from the internet, but we are not complacent. In 2018 we plan to work even harder to locate, disrupt and remove images and videos as quickly and efficiently as we can.

To do this incredible work, we need incredible people, and we need to look after them.

Our work isn’t possible without the support of the internet industry – our Members. We’re funded by some of the biggest global names from the internet. Many of them not only provide us with our funding, but they give us their time, expertise, and technical resources to build leading technology to help us with our mission. You can read about some of the technical developments we’ve worked on in this report.

We encourage you to use our annual report as a reference and information tool on the global picture of child sexual abuse imagery. Our statistics and trends detail how much of this imagery we identify, where it’s hosted, which sorts of internet sites are most abused, and which trends we’re monitoring.

For instance, in 2016 we reported a shift in where we saw the most child sexual abuse imagery being hosted. It moved from North America, to Europe. In 2017 the gap widened and now we see Europe hosting an ever-increasing amount of this content.

We identified, and removed, more than 80,000 webpages and newsgroup posts of child sexual abuse images and videos – the biggest number since we were founded.



Despite seeing more criminal imagery in 2017 than any other year, encouragingly, the public has also made more reports to us than ever before. Building on this, we’re also setting up Reporting Portals in 30 of the world’s poorest countries, meaning by 2019, citizens in 48 countries and territories will be able to report suspect content to us. Also, our exceptional staff, and projects, have been nominated, and won, some incredible awards.

We live in a time when the internet, and internet companies, are being scrutinised in relation to undesirable, harmful, and criminal content. Our mission is the elimination of child sexual abuse imagery from the internet, and for over 21 years we’ve done this as a self-regulatory body in partnership with the industry. More than ever before we can see that this works and through 2018 we’ll be looking at how we can be more transparent about our actions, and those of our Members.

We’ve got some exciting technological developments to launch and refine this year which we believe will have a real impact on furthering our mission and I’m looking forward to telling you about these in our next annual report.

Susie Hargreaves OBE
IWF CEO



Highlights & awards

January

Winner: Harriet Lester, our Technical Projects Officer, is named Rising Star of the Year at the world's largest technology diversity event – the Women in IT Awards.



Harriet Lester, IWF Technical Projects Officer

September

Winner: IWF wins the Public Sector Excellence Award by the World Information Technology and Services Alliance (WITSA) at their 2017 Global ICT Excellence Awards, after being nominated by techUK.



Julian David, CEO, TechUK receiving IWF Award

March

Young stars: Everton FC team up with the UK Safer Internet Centre to launch a unique educational project called Game On, aimed at teaching young men about the importance of appropriate online behaviour and online safety.

OBE: Susie Hargreaves receives her OBE from HRH Prince Charles.



Susie Hargreaves receives OBE from HRH Prince Charles



Susie Hargreaves OBE, IWF CEO, meeting Pope Francis

October

Pope Francis: Susie Hargreaves OBE meets Pope Francis at the Vatican while attending the 'Child Dignity in the Digital World' Congress.

November

Winner: Aarambh wins India's National Award for Child Welfare 2017 for their work on the Online National Resource Centre (<http://aarambhindia.org>), including the Internet Hotline provided by the IWF.

3 Finalist Awards: Our Game On workshops with Everton FC are finalists for three awards: The Innovation Award at the Football Business Awards; the Best Club Marketing Sponsors and Engagement at the Northwest Football Awards, and the Best Partnership at the CorpComms Magazine Awards.

US\$448,875: We announce a grant from the Fund to End Violence Against Children and launched Tanzania's first reporting portal for child sexual abuse imagery – another 29 portals will be launched under the grant.



IWF is setting up Reporting Portals in 30 of the world's least developed countries

April

60% in Europe: IWF releases its 2016 Annual Report revealing a shift in where the majority of child sexual abuse imagery is found, moving from North America to the Netherlands.

May

ISPA Finalist: Susie, our CEO, is an Executive of the Year award finalist at the 2017 annual ISPA awards.

Double win: We are named Charity of the Year and Fred Langford, IWF Deputy CEO, is chosen as a finalist of Digital Leader of the Year in the 2017 Digital Leaders 100 list.



Fred Langford, IWF Deputy CEO

June

Namibia: We launch Namibia's first portal for its citizens to report child sexual abuse images and videos.

More than 9 million reached on social media: The groundbreaking Indecent Images of Children (IIOC) campaign is launched in collaboration with HM Government, the IWF, the NSPCC and the Marie Collins Foundation, to promote a safer use of the internet to men aged 18-24.



Campaign poster



Susie Hargreaves OBE, IWF CEO, speaks at the Cambridge Union

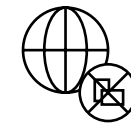
December

7 Minutes: Susie speaks to University of Cambridge students at the Cambridge Union in a lively debate about social media.

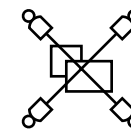
2nd Award: Harriet Lester wins a second award and is named in the TechWomen50 2017 awards list. The award honours women in the tech industry and recognises the impact of female champions and IT leaders.

Home Secretary: Susie and our Chair, Sir Richard Tilt, meet Rt Hon Home Secretary Amber Rudd to discuss the global fight against child sexual abuse imagery.

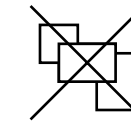
IWF - The global experts



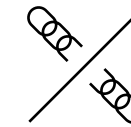
We are the global experts at tackling child sexual abuse images on the internet, wherever they are hosted in the world. We offer a safe and anonymous place for anyone to report these images and videos to us and we're delivering Reporting Portals to countries across the world.



Through the support of our Members, who are international internet companies, our collaboration with 48 hotlines in 42 countries, and law enforcement partners globally, we excel in finding and removing these images.



The children in these horrific pictures and videos are real. Knowing their suffering has been captured and shared online can haunt a victim for life. Eliminating these images is our mission.



Internet companies are being asked to demonstrate their commitment and leadership by creating a safer online world. Our Members fund our work and use our unique services to make sure their networks are safe. By working hand in hand with us, they make it harder for criminals to share, host, and sell images of children being sexually abused. They show the world how they do the right thing.



Do the right thing – report online child sexual abuse imagery to www.iwf.org.uk



Statistics & trends 2017

Our annual report gives the latest data on what is happening globally to tackle child sexual abuse images and videos online. We encourage anyone working in this area to use our statistics to help inform their valuable work.

Reports

In 2017, we assessed a webpage every 4 minutes. Every 7 minutes, that webpage showed a child being sexually abused.

People report to us at iwf.org.uk, or through one of the 19 portals around the world, in multiple languages. All reports come to our headquarters in the UK. We also actively search the internet for child sexual abuse imagery. For every such image or video we identify, we assess the severity of the abuse, the age of the child/children and the location of the files.

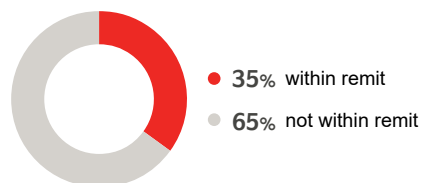
Total numbers of reports processed

132,636 reports were processed by IWF analysts in 2017, a 26% increase on the 2016 figure of 105,420. Please be aware that not all reports we process are found to contain criminal imagery within our remit.

Public report accuracy

57,674 public reports* were processed by our Hotline where the reporter believed they were reporting child sexual abuse imagery.

35% of these reports correctly identified child sexual abuse images. This figure includes newsgroups and duplicate reports, where several reports have correctly identified the same child sexual abuse website.

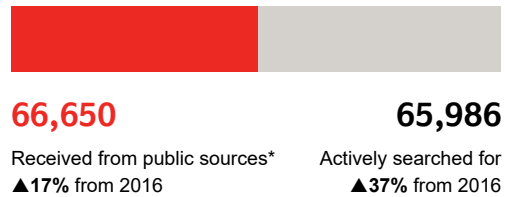


Total number of reports

▲ 26% from 2016



Reports by source



Reports by media type



Reports by content / Criminal

▲ 35% from 2016



80,319 reports were confirmed as containing criminal content covering all three areas of our wider remit.

Reports by content / Not criminal**

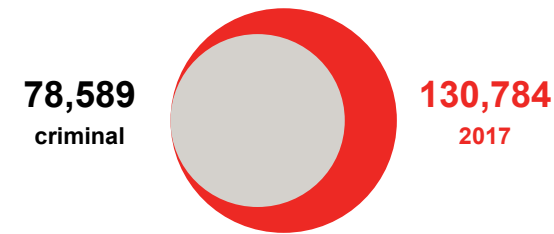


* This includes public reports from all external sources, which includes law enforcement, Members, professionals and the public.

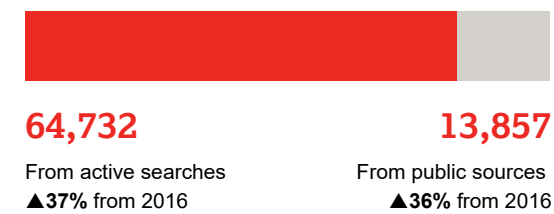
** This is content that either didn't contain criminal content or did not fall within IWF's remit.

Child sexual abuse imagery on URLs

Of the 130,784 webpages reported, 78,589 URLs were confirmed as containing child sexual abuse imagery, having links to the imagery or advertising it.



Breakdown of URLs containing child sexual abuse imagery:



Child sexual abuse imagery on newsgroups

571 newsgroups were confirmed as containing child sexual abuse imagery.

43,767 posts containing child sexual abuse imagery were removed from public access.

Posts containing child sexual abuse imagery removed from public access

▼ 28% from 2016



Wider remit work

5,439 reports of alleged criminally obscene adult content were made to us. Almost all were not hosted in the UK, so they were not in our remit.

One URL depicted criminally obscene adult content hosted in the UK received from a public source. On 1 August 2017, criminally obscene adult content hosted within the UK was removed from IWF's remit.

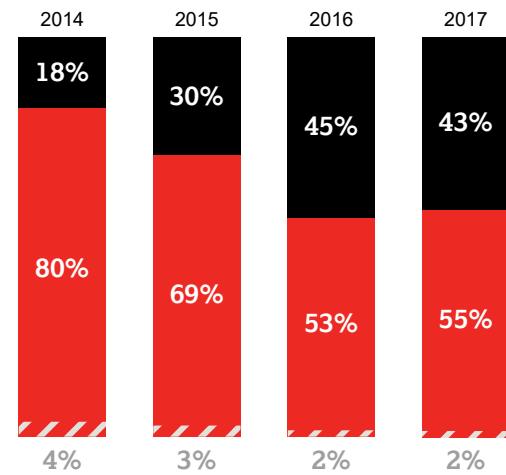
3,471 reports of alleged non-photographic images of child sexual abuse were made to us. None of these images were hosted in the UK, so they were not within our remit.

All child sexual abuse URLs analysed by IWF

Since 2014 we have seen a gradual drop in the percentage of children we assess as being aged 10 or younger. However, where we do see child sexual abuse imagery of younger children, it is more likely to show the most severe forms of abuse, including rape and sexual torture.

Children appearing to be:

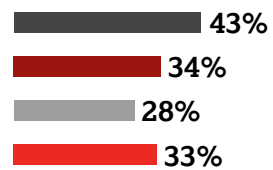
● 11 to 15 years ● 0 to 10 years ● 0 to 2 years



Please note: Percentages may contain a small variable due to URLs linking to child sexual abuse websites.

Images showing sexual abuse activity between adults and children including rape or sexual torture, category A

● 2014 ● 2015 ● 2016 ● 2017



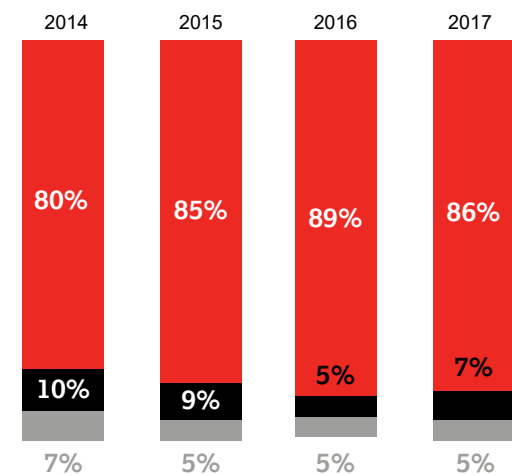
In 2017, 44% of the imagery showing children appearing to be aged 10 or younger was assessed as being category A



Compared to 20% of the imagery showing children aged 11-17.

Images where victims were:

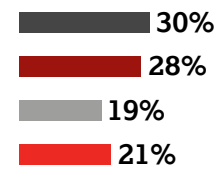
● Girls ● Boys ● Both genders



Please note: A small number of the victims could not be identified as either male or female.

Images involving non-penetrative sexual activity, category B

● 2014 ● 2015 ● 2016 ● 2017



We increasingly see more imagery of 11-15 year olds in what is termed “self-produced” content created using webcams and then shared online. This can have serious repercussions for young people and we take this trend very seriously. We have looked into this before and will be launching a new report focusing on online child sexual abuse imagery captured from webcam live-streams in 2018.

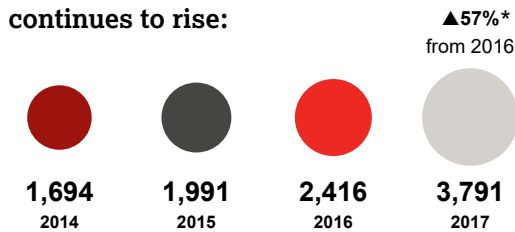
Domain analysis

78,589 URLs contained child sexual abuse imagery and 3,791 domain names worldwide were used to create links to this content. This is a 57% increase from 2,416 domain names in 2016.

This increase is consistent with the trend we first identified in 2014.

For domain analysis purposes, the webpages of www.iwf.org.uk, www.iwf.org.uk/report, and www.iwf.org.uk/what-we-do are counted as one domain: iwf.org.uk

Domains being abused to link to child sexual abuse images and videos continues to rise:

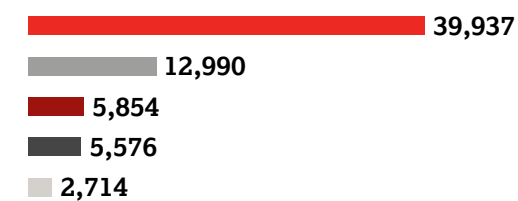


*This increase is consistent with the trend we first identified in 2014

The websites containing child sexual abuse content were registered across **152 top level domains**.

Five domains accounted for 85% of all webpages identified as containing child sexual abuse images and videos:

● com ● net ● org ● ru ● co



The 78,589 URLs hosting child sexual abuse content were traced to 54 countries

● 2017 ● 2016



Domain names

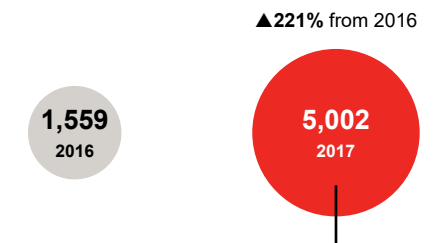
Our Domain Alerts help our Members in the domain registration sector prevent abuse of their services by criminals attempting to create domains dedicated to distribution of child sexual abuse imagery.

Several well-established domains including .com and .biz are known as “Generic Top Level Domains” (gTLDs). Since 2014, many more gTLDs have been released to meet a requirement for enhanced competition and consumer choice in domain names, often in specific categories of content.

In 2015, we first saw these new gTLDs being used to link to child sexual abuse imagery. Many of these new gTLD registrations were dedicated to illegal imagery and had apparently been registered specifically for this purpose.

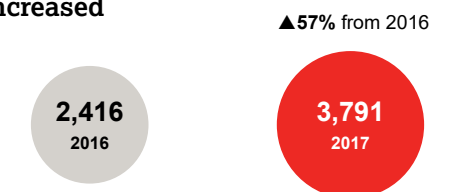
New gTLDs being used for the distribution of child sexual abuse imagery continues to be a rising trend in 2017.

In 2017 we took action against 5,002 URLs on website using new gTLDs



These URLs were located across 1,063 different domains and 50 different new gTLDs.

The number of all domains in TLDs being used to distribute child sexual abuse imagery has also increased



Actions taken against all domains in TLDs distributing child sexual abuse imagery

This is due in part to a rising trend amongst commercial distributors, particularly distributors of “disguised websites”, to register individual domain names for use on their dedicated websites rather than using the services of free-hosting websites.

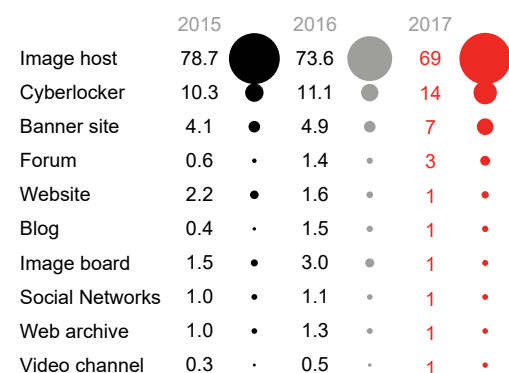
Which types of sites are abused the most?

Image hosting sites and cyberlockers were abused significantly more than other services.

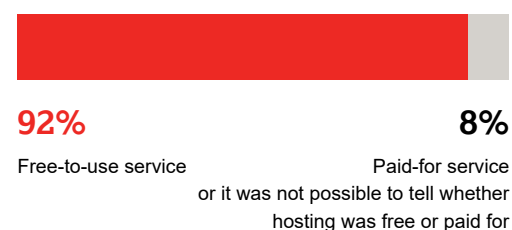
Social networks were among the least abused site types.

We have also seen an increase in the number of banner sites used to distribute commercial child sexual abuse imagery.

Site type



Distribution of URL hosting



In 2017, 72,343 URLs (92%) were hosted on a free-to-use service where no payment was required to create an account or upload the content. In the remaining 8% of cases, the content was hosted on a paid-for service, or it was not possible to tell whether the hosting was free or paid for.

Image hosts

Image hosts are most consistently abused for distributing child sexual abuse imagery.

Offenders distributing child sexual abuse imagery commonly use image hosts to host the images which appear on their dedicated websites, which can often display many thousands of abusive images. Where our analysts see this technique, they ensure the website is taken down and each of the embedded images is removed from the image hosting service. By taking this two-step action, the image is removed at its source and from all other websites into which it was embedded even if those websites have not yet been found by our analysts.

The award-winning IWF Image Hash List, launched in 2016, can help image hosts to tackle this abuse.

Global hosting of child sexual abuse images

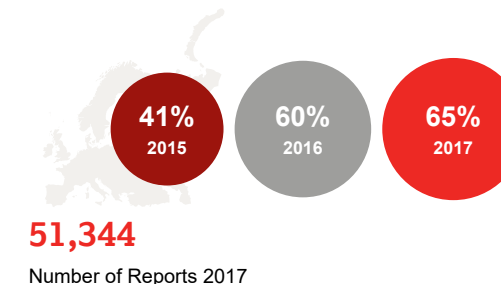
In 2016, we saw that for the first time the majority of child sexual abuse webpages assessed by our analysts were hosted in Europe, which was a shift from North America. This trend continued in 2017, with 65% of child sexual abuse content hosted in Europe. 32% was hosted in North America.

In 2017, 20 webpages containing child sexual abuse imagery were hosted in Africa. Images and videos hosted in Australasia, South America and in hidden services totalled less than 1% of all confirmed child sexual abuse content in 2017.

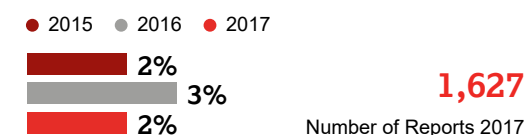
North America



Europe (inc Russia & Turkey)



Asia



South America



Africa



Australasia



Onion URL

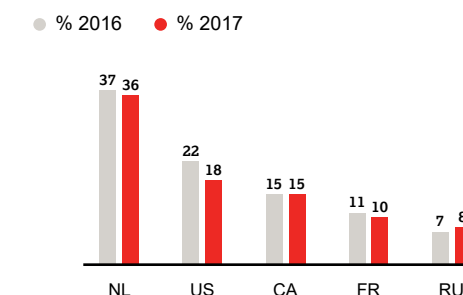


Top five countries

87% of all child sexual abuse URLs we identified globally in 2017 were hosted in five countries.



87% of all child sexual abuse URLs we identified globally in 2017 were hosted in these five countries:





Hidden services

Hidden services are websites hosted within proxy networks – sometimes also called the dark web. These websites are challenging as the location of the hosting server cannot be traced in the normal way.

We work with the National Crime Agency (NCA) Child Exploitation and Online Protection (CEOP) Command to provide intelligence on any new hidden services which are displaying child sexual abuse imagery. With this intelligence, NCA-CEOP can work with national and international law enforcement agencies to investigate the criminals using these websites.

Hidden services 2016



Hidden services 2017

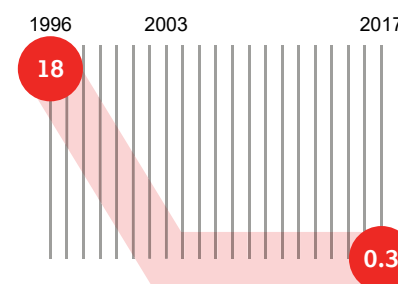


We have also seen an increase in “commercial” hidden services – dedicated websites offering child sexual abuse imagery for sale.

Hidden services commonly contain hundreds or even thousands of links to child sexual abuse imagery that is hosted on image hosts and cyberlockers on the open web. We take action to remove the child sexual abuse imagery on the open web. Our analysts also add child sexual abuse images and videos hosted in hidden services to the IWF Hash List, helping to prevent wider distribution on the open web. Monitoring trends in the way offenders use hidden services to distribute child sexual abuse imagery also helps us when we are searching for this imagery online.

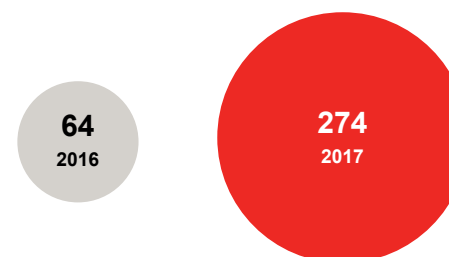
UK hosting of child sexual abuse imagery

The UK hosts a small volume of online child sexual abuse content. When we started in 1996, the UK hosted 18% of the global total – in 2017 this figure was just 0.3%.



UK online child sexual abuse content, % of the global

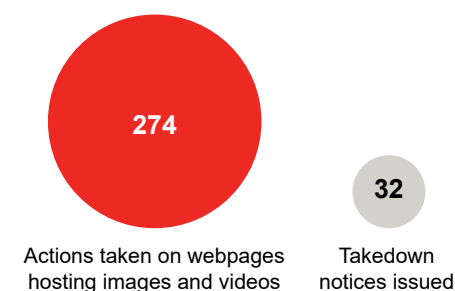
In 2017, 274 URLs displaying child sexual abuse imagery were hosted in the UK, an increase from 64 URLs in 2016.



The main reason for this increase was that a group of dedicated child sexual abuse websites, apparently associated with a single commercial distributor, was repeatedly uploaded to a UK hosting company. This group of dedicated websites accounted for 221 of the 274 UK-hosted URLs in 2017. We worked closely with the UK host to ensure the content was removed quickly, often within minutes of notification. Since October, we have not seen these websites being hosted in the UK.

We took action on 274 webpages hosting images and videos in the UK and issued 32 takedown notices. We might send one notice for several webpages and content may have already been removed by the time we get authorisation from the police.

Actions and takedown notices in 2017

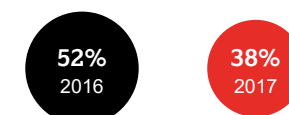


UK child sexual abuse content removal in minutes

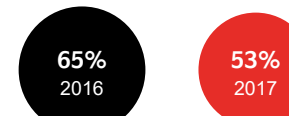
In partnership with the online industry, we work quickly to push for the removal of child sexual abuse content hosted in the UK. The ‘take down’ time clock ticks from the moment we issue a takedown notice to the hosting company to the time the content is removed.

Although the URL numbers are relatively small compared to the global problem, it is important the UK remains a hostile place for criminals to host this content.

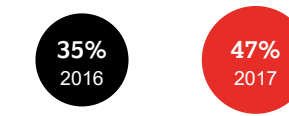
60 minutes or less



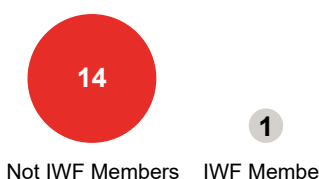
120 minutes or less



More than 120 minutes



15 companies’ services in the UK were abused to host child sexual abuse images or videos during 2017. We issued takedown notices to these companies, whether they’re our Members or not.



We typically find that content stays live for longer, and companies are less responsive when they are not Members of IWF.



IWF URL List

We provide a list of webpages with child sexual abuse images and videos hosted abroad to companies who want to block or filter them for their users' protection, and to prevent repeat victimisation. We update the list twice a day, removing and adding URLs.

During 2017 the list was sent across all seven continents.

Total unique URLs on the IWF list increased by 44% in 2017



Average number of URLs added each day



Average number of URLs on the list per day



The IWF Hash List

Each image can be given a unique code, known as a hash. A hash is like a digital fingerprint of an image. IWF creates hashes of the child sexual abuse content we see and we add these to our Hash List. The list of these hashes can be used to find duplicate images. This makes us more efficient at what we do. It also means the Hash List could stop the sharing, storage and even the upload of child sexual abuse content.

During 2017, we added 130,671 hashes to our Hash List.

Of the hashes connected to individual images, a quarter of them related to the worst forms of abuse.

At the end of 2017, the list contained hashes relating to 295,389 individual images.

This means that in 2017, our analysts reviewed 10,889 images each, alongside reviewing public reports, and actively searching for child sexual abuse images and videos.



Number of images relating to hashes from our Hash List at the end of 2017

26% of hashes related to the worst forms of abuse*

* images of rape or sexual torture of children

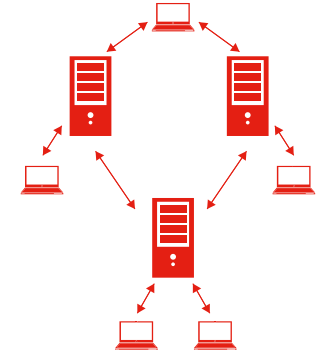


Keywords List

Paedophiles often create their own language – codes – for finding and hiding child sexual abuse images online.

To help counter this each month we give our Members a list of keywords that are used by people looking for child sexual abuse images online. This is to improve the quality of search returns, reduce the abuse of their networks and provide a safer online experience for internet users.

In December 2017 the Keywords List held 452 words associated with child sexual abuse images and videos.



Newsgroups

Our Hotline team monitors the content of newsgroups and issues takedown notices for individual postings of child sexual abuse imagery. We also provide a Newsgroup Alert to Members, which is a notification of child sexual abuse content hosted on newsgroup services so they can be removed.

We are one of only a handful of hotlines in the world that processes reports on newsgroups.

Throughout 2017, we monitored and reviewed newsgroups and issued takedown notices.

We processed 1,852 reports alleging child sexual abuse images hosted within newsgroups.

After monitoring newsgroups, we recommended our Members do not carry 344 newsgroups containing child sexual abuse images and videos.

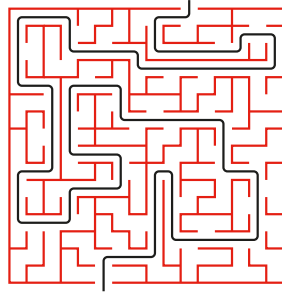
Takedown notices issued for newsgroups containing child sexual abuse images*



*One takedown can contain details of several newsgroup postings

Posts removed from public access





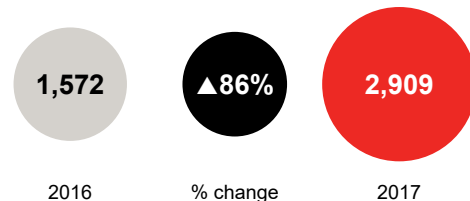
Disguised websites

Since 2011, we have been monitoring commercial child sexual abuse websites which display child sexual abuse imagery only when accessed by a “digital pathway” of links from other websites. When the pathway is not followed, or the website is accessed directly through a browser, legal content is displayed. This means it is more difficult to locate and investigate the illegal imagery.

When we first identified this technique, we developed a way of revealing the illegal imagery, meaning we could remove the content and the websites could be investigated. But the criminals continually change how they hide the illegal imagery, so we adapt in response.

- In 2017, we uncovered 2,909 websites using this method to hide child sexual abuse imagery, an increase of 86% on the 1,572 disguised websites identified in 2016.
- All 2,909 of the disguised websites dedicated to distribution of child sexual abuse imagery we took action against in 2017 were using a domain name which had apparently been registered specifically for this purpose.

Websites using disguised method



Disguised websites continue to be a significant and increasing problem. By sharing our expertise in uncovering these websites with our sister hotlines and law enforcement worldwide, we help disrupt the operation of commercial child sexual abuse websites.

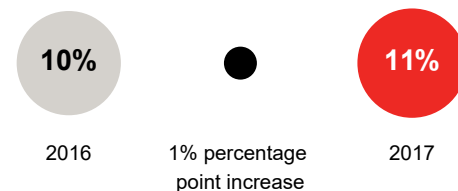
Commercial child sexual abuse material

We define commercial child sexual abuse imagery as images or videos which were seemingly produced or being used for the purposes of financial gain by the distributor.

In 2015, we assessed 21% of the webpages containing child sexual abuse imagery as commercial. Since then, we have seen a decline. We believe this is due in part to changing methods used by criminals to evade detection, such as the increase in disguised websites.

In addition to taking action to have these websites removed, we also capture payment information displayed on these websites, enabling us to provide alerts to our Members in the financial industry to prevent the misuse of the services and further disrupt distribution of the imagery.

Of the 78,589 webpages containing child sexual abuse imagery, 8,974 were commercial in nature.



Website brands

Our Website Brands Project started in 2009. Since then, we have been tracking the different “brands” of dedicated child sexual abuse websites. These dedicated commercial websites are constantly moving their location to evade detection and our analysts see the same websites appearing on many different URLs over time. Since the project began, we have identified 4,006 unique website brands.

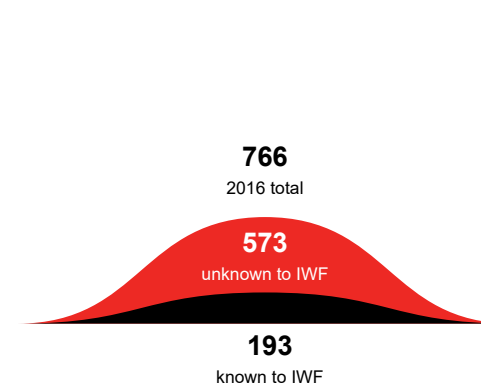
Our ongoing analysis of hosting patterns, registration details and payment information indicates that the majority of these dedicated websites are operated by a small number of criminal groups. In 2017, the top 20 most prolific brands were apparently associated with just five distribution groups.

This year, we have identified changes in the methods used by commercial distributors to create their websites. Increasingly, the names and titles of these websites are dynamic, meaning that they change each time the page is reloaded. This has resulted in a large increase in the number of active “brands” selling child sexual abuse imagery.

- In 2017, we saw 1,624 active brands, compared to 766 in 2016.
- Of these active brands, 1,263 were previously unknown to us, compared to 573 in 2016.

We will continue to monitor trends and work closely with law enforcement partners and our financial industry Members to ensure the commercial distribution of child sexual abuse imagery is disrupted.

Web brands selling sexual abuse imagery in 2016



The number of brands rose by ▲ 112% in 2017



New technology

We are constantly innovating our techniques and developing our technology and the services we offer to the internet industry with the aim of eliminating online child sexual abuse content.

Hash List

First launched in 2015 as a pilot, our Hash List of 'digital fingerprints' of child sexual abuse had grown to more than 295,000 individual images by the end of 2017.

In 2017, funded by Microsoft and using PhotoDNA technology, we developed a tool to enable us to extract digital fingerprints of videos. This complex technical development is leading the way in helping us, and our Members, identify and remove videos of child sexual abuse.

Bespoke reporting system

We have always used a custom-built report management system (RMS) to receive, process and action reports into our hotline. This year we've developed version four, to be launched mid 2018.

It ensures:

- We capture as much detail as possible about child sexual abuse imagery online;
- That our analysts' welfare is safeguarded as far as possible, and
- That it's as simple as possible to gather statistics and trends for analysis.

Due to launch in 2018, we'll offer our Members the ability to directly report suspect URLs into RMS, and therefore become an extension to their own abuse teams.



The IWF Tech Team: Bino Joseph, Harriet Lester, Fred Langford, Sarah Smith, Evgeni Paunov



Our Members

We are supported by more than 130 Member companies across the globe. You can see who they are, and the contribution they make on our website: www.iwf.org.uk/our-members.

Our Members provide us with financial and technical resources, and we provide them with a suite of services to help keep their users safe and to prevent the re-victimisation of children whose sexual abuse images are shared online.

You can find out about how we've been able to help our Members provide safer services on our website: www.iwf.org.uk/member-case-studies



Protecting internet users globally

Sophos is a global IT security and data protection company. Their products help secure the networks used by 100 million people in 150 countries and 100,000 businesses.

As IT networks grow in complexity, Sophos is focused on keeping IT security simple and reliable. They know that a proper security strategy must include networks, servers and devices—all devices—managed easily through the cloud.

What was Sophos's challenge?

As the number of computer users continues to rise, so does the variance and quantity of online content available to them. The experts at Sophos regularly noticed the problem of online child sexual abuse images and videos circulating online and wanted to protect their customers from exposure to this content.

What was Sophos's solution?

Sophos's global network of threat analysis centres, detects a vast quantity of spam containing illicit material, such as child sexual abuse content.

Prior to joining IWF as Members in 2005, Sophos advised IWF of such data. They decided it made sense to become Members of IWF to utilise the tools IWF makes available to its Members such as its Keywords List and URL List to better protect its customers against this type of content.

SOPHOS

How is it working for them?

Mark Harris, global director of SophosLabs, said:

“ We see it as our social duty to do all we can to prevent unsuspecting users from opening the disturbing material that spammers are wilfully churning out. Before becoming IWF Member we advised the IWF of data on criminal spam and websites we encountered, so joining the organisation seemed the next logical step in our committed fight against the presence of offensive online content. ”

Chainalysis helps IWF disrupt the commercial aspect of online child sexual abuse imagery

Chainalysis builds trust in blockchains between people, businesses and governments. Their Blockchain Intelligence Platform powers their compliance and investigation software for the world's top institutions. Chainalysis became an IWF Member in August 2016.

Their mission is to enable people to safely transact on the decentralised internet and prevent abuse of cryptocurrencies by malicious actors.

The transfer of value over the internet requires new methods of data analysis, visualization and actionable intelligence to protect the integrity of our financial system. Founded in 2014, Chainalysis is the leading provider of Anti-Money Laundering software for Bitcoin. They work with global financial institutions, like Barclays and Bitcoin exchanges to enable every stakeholder to assess risk in this new economy. Their customers have checked over \$25 billion worth of transactions using their platform.

What was Chainalysis's challenge?

As well as allowing customers to use Chainalysis's products to detect fraud and identify malicious online behaviour such as money laundering, Chainalysis wanted to ensure they're doing what they can to disrupt the commercial aspect of online child sexual abuse imagery.

What was Chainalysis's solution?

By becoming a Member of the IWF,



Chainalysis has access to the IWF's database of Bitcoin addresses that are linked to online child sexual abuse imagery, through the IWF Virtual Currency Alerts. This enables them to help their law enforcement and private sector customers work together to disrupt the commercial distribution of these images.

Chainalysis analysts receive the alerts and investigate the transactions associated to these alerts. Where exchanges can be identified, they are alerted and assisted in contacting the relevant law enforcement agency.

How is it working for them?

Jonathan Levin, CRO and Co-Founder, Chainalysis said:

“ We have been very excited to receive the virtual currency alerts produced by IWF on the connection of virtual currency and the distribution of child abuse images. Through receiving these alerts we are able to help our law enforcement and private sector customers work together to eradicate the commercial distribution of these images. Identifying the flow of funds and revenues generated through this activity opens up a new avenue to prevent this criminal activity and bring in more stakeholders into the fight. ”



How IWF helps Netopian make their products the safest possible

Netopian offers a web protection service, specifically built to support the needs of vulnerable people and in particular looked-after young people, who are amongst the most vulnerable in our society.

The internet today presents young people with great learning resources with many opportunities to discover new things. The young people that Netopian protect are very willing to explore the web and meet others online just like other young people, however they may not be aware that in some cases they are placing themselves at risk of harm.

What was Netopian's challenge?

Netopian's unique safeguarding system identifies unwanted approaches and predatory activity and alerts those with safeguarding responsibilities to young people in crisis or in need of support.

Netopian were aware of the IWF URL List that enables providers to block access to specific live webpages with indecent images of children and the IWF Keywords List which contains cryptic terms and phrases associated with paedophilic content. They knew these two unique services were crucial in helping them protect their clients.

What was Netopian's solution?

Through IWF membership, Netopian have direct access to the IWF URL List and the IWF Keywords List.

IWF's URL List enables Netopian to protect their clients and their clients' users from accessing live webpages with indecent images of children.

Netopian's use of the IWF Keywords List of cryptic terms associated with paedophilic content flags up if any of these terms are used in emails, chat or on social networks which means their clients are alerted and can take appropriate action.

Netopian underpin their safeguarding system with the unique IWF services to ensure they are providing the safest service possible for their young people.

How is it working for them?

Really well. Netopian found the IWF URL List and Keywords List easy to implement.

Netopian are proud of being able to tell prospective clients of the extra benefits IWF's URL List and Keywords List are giving them. Their IWF membership ensures their clients are protected from accidentally accessing webpages with indecent images of children as well as being alerted if terms from the IWF Keywords List are used in communications. This enables Netopian to take the appropriate actions to safeguard the people they look after.

IWF membership and access to the unique IWF services enables Netopian to provide a safer and more protected internet experience to their clients.

Pete Buckley, Director of Operations & Safeguarding, Netopian says:

“ We believe that through the proactive use of technology we can help safeguard young people more effectively and importantly before any harm comes to them. We are delighted to work with the IWF and to use their proactive unique services to compliment and underpin the Netopian safeguarding system. ”

IWF Reporting Portals

People all over the world should be able to report online child sexual abuse images and videos. In 2013 we launched our first international Reporting Portal in Mauritius followed by a further 17.

Under the WeProtect Model National Response adopted at the WeProtect Abu-Dhabi Summit 2015, governments agreed to remove child sexual abuse material from the internet. We're helping countries achieve this objective. In 2017 we received a grant of \$448,875 by the Global Fund to End Violence Against Children enabling us to deliver a further 30 portals in the least developed countries, driven by a dedicated International Development Manager.



Tanzania received the first portal under the grant, and an ambitious programme in Africa, Central America and Asia-Pacific has begun.

A Reporting Portal can show that a country is a hostile place for child sexual abuse, and that it is being proactive in safeguarding children as well as cyber systems. Robust cybersecurity measures also bring opportunities for these countries through international trade and economic growth.



Jenny Thornton, IWF International Development Manager

“ There is a global disparity in the availability of mechanisms for tackling child sexual abuse imagery online. To address this unevenness, in a world where child sexual abuse imagery online is a crime that disregards international borders, we are dedicated to equipping the least developed countries with a Reporting Portal. It's important to do this now, before these countries are targeted because of their vulnerability. ”

Reporting Portal locations

Each Reporting Portal uses our existing and world-class Hotline service.

All reports come to our analysts who work directly with the internet industry and law enforcement to have the criminal imagery removed quickly.

The Portal needs no hardware or personnel costs to be covered by the host country or territory, and uses our expertise of over 20 years. It is affordable and quick to set up for countries and territories worldwide.

We received 636 reports from the global Portals network in 2017.

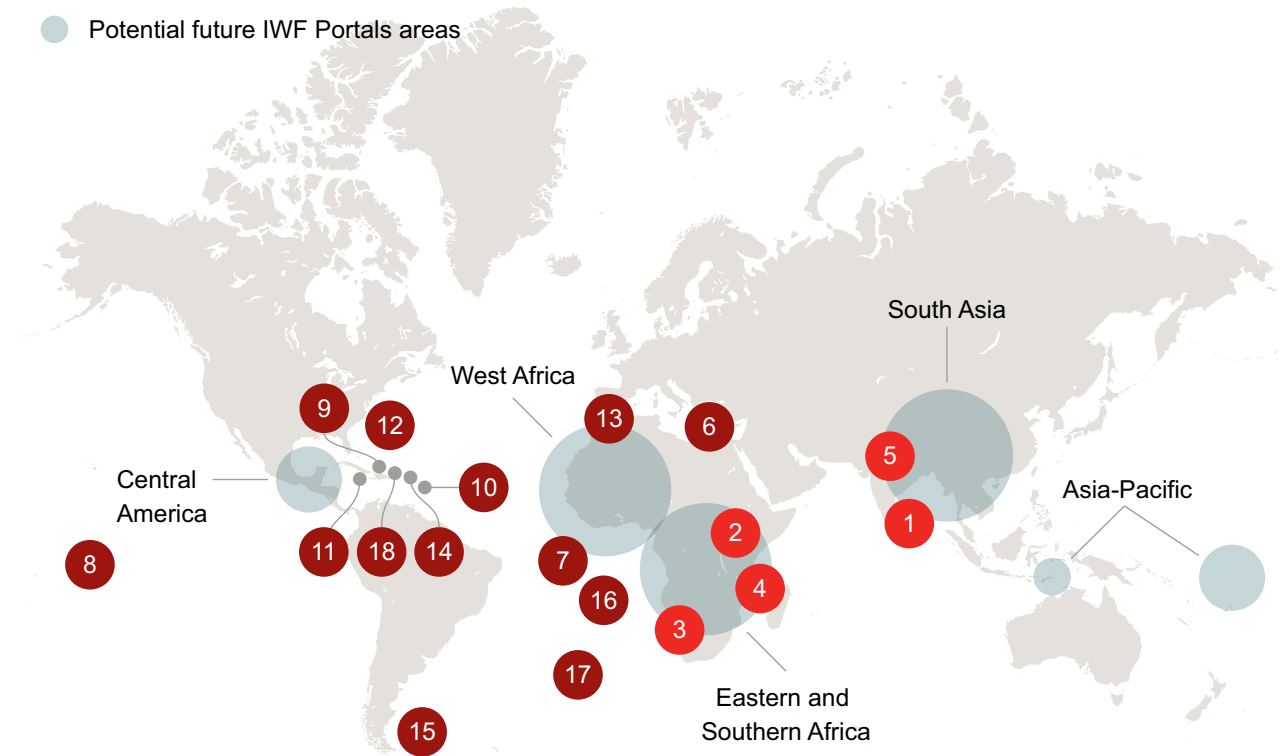
● Portal Country

1. Mauritius
2. Uganda
3. Namibia
4. Tanzania
5. India

● UK Overseas Territories

6. Akrotiri & Dhekelia
7. Ascension Island
8. Pitcairn Islands
9. Turks & Caicos
10. Montserrat
11. Cayman Islands
12. Bermuda
13. Gibraltar
14. Anguilla
15. Falkland Islands
16. St Helena
17. Tristan da Cunha
18. British Virgin Islands

● Potential future IWF Portals areas



In November, we partnered with the US Department of Justice and Department of State in a symposium attended by delegations from El Salvador, Guatemala, and Honduras. Using the WePROTECT Global Alliance's Model National Response, as a framework it focused on developing national responses for combating online child sexual exploitation. A key component of a comprehensive national response is enabling global citizens to report online images and videos of child sexual abuse.

“ Effective partnerships between government entities and non-governmental organisations, like those being achieved through the WePROTECT Global Alliance, are essential to the global effort to combat online child exploitation. ”



Steven J. Grocki, Chief, Child Exploitation and Obscenity Section, Criminal Division, United States Department of Justice

Tanzania Portal: A locally-led reporting solution

The United Republic of Tanzania launched their Reporting Portal in November, covering the Tanzania mainland as well as Zanzibar Island which has its own police force and customs.

There was clear national leadership and ownership of the portal from the start. Additionally, it's crucial with every launch that we understand the country we're working with in order to make the portal a success.

Language

Two versions of the Reporting Portal were developed, in English and in Kiswahili to reflect the languages spoken. Accurate translations of terminology were essential for wide understanding and we worked with partners in Tanzania to guide this.

National politics

In 2017, a new Tanzanian law was passed to regulate online content producers including social media users. Citizens were encouraged to report illegal online content. Therefore, the portal launch received much support from the government and media on the mainland, and in Zanzibar.



Speaking at the Tanzanian portal press conference was Mr Semu Mwakyanjala, Principal Corporate Communications Officer at the Tanzanian Communications Regulatory Authority

“ Child Helpline International and the Internet Watch Foundation are working together to ensure that children are protected online and offline. Both organisations believe that child helplines should not only support children and young people who suffer abuses online, but also refer and report cases to local authorities and portals so that their rights can be restored. As a result of our partnership, in 2017 C-Sema, Child Helpline Tanzania, became the host for the Tanzanian portal, while Linha Fala Crianca in Mozambique and Lifeline/Childline in Zambia participated in the roundtable discussions held in Maputo and Lusaka respectively. ”



Magdalena Aguilar, Co-Chief Executive, Child Helpline International

Caring for people

“ At the IWF we believe in the importance of looking after people. It is a simple value, but one that shapes all our work.

So, whether it is respecting the feelings of the young victims in the images, or caring for our analysts, whose job it is to find and remove these disturbing reminders of abuse, we put people first. ”



Heidi Kempster, IWF Director of Business Affairs

The story of a survivor

The IWF works with global partners and hotlines to ensure that wherever child sexual abuse images are stored, shared or distributed, we are able to act against them.

Our international partners work with us to help survivors of child sexual abuse move on from their experiences and to provide reassurance that images and content depicting their abuse are taken down. We work internationally to provide reassurance both to UK and overseas survivors that we are doing everything possible to get content featuring them taken down.

Our analysts work every day with incredibly challenging situations and material. One spoke about a report we received in November about content depicting a young girl who we will call Georgia.

This isn't her real name and we've changed a few details to protect her identity.



"Georgia"

In 2017, our Hotline analysts removed 80,318 illegal webpages and newsgroups of children being sexually abused.

The images were very disturbing. They showed the youngster being sexually abused by a much older man. One of the pictures was particularly graphic and I classified it as category 'A' – which is the 'worst of the worst' level of abuse, our analyst explained.

Importantly, because I could legally search for child sexual abuse imagery online, I could track down all the disturbing material. It took me two and a half days to scour the web for more instances of her images. In total, I found 164 URLs. Sadly, the webpages also contained photographs of other children being horribly abused. Some were really, really young.

It took two and a half days to get all the images taken down across the world. But I hope the work I did had an important impact for Georgia.

I know that our team can't take the abuse away. The victims we help are real children.

They've been horribly abused and exploited. Their suffering is very real. But we can remove the online images of their abuse. And for young women like Georgia, we do make a real difference.

What the analysts say

Our analysts remove thousands of images of child sexual abuse from the internet and some offenders don't like that. So, names have been changed to protect identities, but the words are real.

Rebecca:
As an analyst, nothing can truly prepare you for what you're going to see. Each working day, we see multiple images of children being hideously abused.

These are real children, ordinary children. They go to school, they do their homework, they have friends and families. But something terrible is happening to them in secret and we see their suffering, from newborn babies, right up to teenagers.

I try not to think about what's going on too much, but sometimes it takes your breath away – how could someone do something like that to a baby?

This is shocking. There is absolutely no doubt.

Shannon:
We all go through a desensitisation programme and we're introduced to the images on a graded basis. New analysts aren't just thrown in at the deep end and expected to deal with it; we're given time and emotional support.

But if I'm being totally honest, we're all human and I would say that for every analyst there will be one victim, one image, that stays with you for longer. For whatever reason, that abuse sticks. We all learn to cope with that.

For me, listening to sound, it makes it more real. It seems to hit your emotions if you can hear the child crying, or an adult shouting. It's makes it hard to escape the truth.

Steve:
Yes, there are three to four images that I'll carry around with me for a very long time. I wish we didn't have to do this job, but for now that's not the case. Our work ranges from the erotic posing of children, through to the most severe abuse – rape and sexual torture.

It can be quite distressing for people to see what is horrendous abuse inflicted on innocent and often very young children. The sites we find could contain anything from one to a thousand images of child rape. That's not easy to handle.

But for every abusive image we remove from the internet, that's one less image of suffering on the web. And we never forget that each image we identify is a crime scene. Our work could and does lead to the rescue of these children.

Kate:
Sadly, for the children that aren't rescued, we sometimes see victims growing up. Their lives play out in front of us, from tiny babies to toddlers, young teens to adults. These are perhaps the most tragic cases and they're driven by offenders, who demand more and more images of abuse.

I suppose that's why we do what we do. We want to make a difference. We want to stop victims being tormented by the fact that the images and videos of their abuse could be shared, and shared again. We want to help rescue these child victims.

As our team manager says, we're just an ordinary bunch of people – but we're doing an extraordinary job.



UK Safer Internet Centre

Brought to you by:



UK Safer Internet Centre

The UK Safer Internet Centre is a partnership of three leading organisations – Childnet International, South West Grid for Learning (SWGfL) and the IWF - with a shared mission to make the internet a better and safer place for children and young people.

The partnership was appointed by the European Commission in January 2011 and is one of the 31 Safer Internet Centres of the Insafe network. The centre has five main functions:

1. Education, training and awareness: Increasing the UK's resilience through innovative tools, services, resources, campaigns and training.
2. Helpline: Supporting the children's workforce.
3. Hotline: Disrupting the distribution of child sexual abuse content.
4. Youth Participation: Giving youth a voice and inspiring active digital citizenship.
5. Leadership and collaboration: Creating a UK and global ecosystem that embeds online safety.

Safer Internet Day 2017

With the theme 'Be the change: Unite for a better internet', Safer Internet Day 2017 engaged more people across the UK than ever before.

1,645 organisations took part and more than seven million people were reached on social media. As a result, SID encouraged a global conversation about internet safety revealing fascinating insights into the impacts and importance of images and videos in a young person's life.



Glossary

Banner site

A website or webpage made up of adverts for other websites with text links or images that take you to third-party websites when you click on them.

Blog

A blog is a discussion or information site made up of separate entries, or posts. Most are interactive, and visitors can leave comments and even message each other on the blog. The interactivity is what makes them different from other static websites.

CAID

The Child Abuse Image Database (CAID) is a project led by the Home Office which will enable UK law enforcement to assess, categorise and generate unique hashes for tens of millions of child abuse images and videos found during their investigations.

Category A, B and C

We assess child sexual abuse images and videos based on UK law, according to the levels in the Sentencing Council's Sexual Offences Definitive Guidelines.

Since April 2014, there have been three levels: A, B and C. For definitions see our website: iwf.org.uk/assessment-levels

Child sexual abuse images/videos/imagery/content

Images or videos that show the sexual abuse of children. We use the term 'child sexual abuse' images to reflect the gravity of the images we deal with.

Criminally obscene adult content

Images and videos that show extreme sexual activity that's criminal in the UK.

Cyberlockers

File hosting services, cloud storage services or online file storage providers. They are internet hosting services specifically designed to host users' files.

Dark net

The dark net, also known as the dark web, is the hidden part of the internet accessed using Tor. Tor is anonymity software that makes it difficult to trace the users' online activity.

Disguised websites

Websites which, when loaded directly into a browser, show legal content - but when accessed through a particular pathway (or referrer website) show illegal content, for example child sexual abuse images.

Domain alerts

Details of domain names that are known to be hosting child sexual abuse content.

Forum

Also known as a 'message board', a forum is an online chat site where people talk or upload files in the form of posts. A forum can hold sub-forums, and each of these could have several topics. Within a topic, each new discussion started is called a thread, and any forum user can reply to this thread.

Hash/hashes

A 'hash' is a unique code, or string of text and numbers generated from the binary data of a picture. Hashes can automatically identify known child sexual abuse images without needing to examine each image individually. This can help to prevent online distribution of this content.

Hidden services

Websites that are hosted within a proxy network, so their location can't be traced.

Image board

An image board is a type of internet forum that operates mostly through posting images. They're used for discussions on a variety of topics, and are similar to bulletin board systems, but with a focus on images.

Image host/Image hosting site

An image hosting service lets users upload images and they're then available through a unique URL. This URL can be used to make online links, or be embedded in other websites, forums and social networking sites.

Image store

A collection of images stored for non-commercial purposes. An example would be a hidden folder in an otherwise innocent website.

IWF Reporting Portal

A world-class reporting solution for child sexual abuse content, for countries which don't have an existing hotline.

Keywords

A list of terms associated with child sexual abuse material searches.

Newsgroups

Internet discussion groups dedicated to a variety of subjects. Users make posts to a newsgroup and others can see them and comment. Sometimes called 'Usenet', newsgroups were the original online forums and a precursor to the World Wide Web.

Non-photographic child sexual abuse content

Images and videos of child sexual abuse which aren't photographs, for example computer-generated images.

Onion sites

Onion sites get their name from the vegetable, which is made-up of lots of different layers. Like onions, onion sites sit behind layers and layers of anonymity which make them, and the people using them, very difficult to trace.

Proactive/proactively searching/proactively seeking

We can now actively search for child sexual abuse content, in addition to taking public reports. We're the only hotline in the world that can do this.

Proxy network

These are systems that enable online anonymity, accelerate service requests, encryption, security and lots of other features. Some proxy software, such as Tor, attempts to conceal the true location of services.

Redirector

These webpages are set up to redirect the user to another hosted webpage. When a redirector URL is browsed, the user request is automatically forwarded to the destination URL. Sometimes, when the redirector webpage is loaded in the browser it hides the destination URL.

Re-victimisation

Re-victimisation, or repeat victimisation is what happens to a victim when their image is shared online. A single image of a victim can be shared hundreds or thousands of times.

Service Provider/Internet Service Provider

An internet service provider (ISP) is a company or organisation that provides access to the internet, internet connectivity and other related services, like hosting websites.

Self-certification

This is the process where a company that uses our IWF URL List tests their system every quarter to check they're using it properly.

Social networking site

A social networking service is a platform to build social relations. It usually has a representation of each user (often a profile), their social links and a variety of other services. Popular examples include Facebook and Twitter.

Top-level domain (TLD)

Domains at the top of the domain name hierarchy. For example .com, .org and .info are all examples of generic top-level domains (gTLDs). The term also covers country code top-level domains (ccTLDs) like .uk for UK or .us for US and sponsored top-level domains (sTLDs) like .mobi or .xxx

URL

An acronym for Uniform Resource Locator. A URL is the specific location where a file is saved online. For example, the URL of the IWF logo which appears on the webpage www.iwf.org.uk/images/public/anna_logo.jpg

Web archive

A service which makes it possible to view historic copies of websites, which are periodically archived over time.

Webpage

A document which can be seen using a web browser. A single webpage can hold lots of images, text, videos or hyperlinks and many websites will have lots of webpages. www.iwf.org.uk/about-iwf and www.iwf.org.uk/hotline are both examples of webpages.

Website

A website is a set of related webpages typically served from a single web domain. Most websites have several webpages.



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