

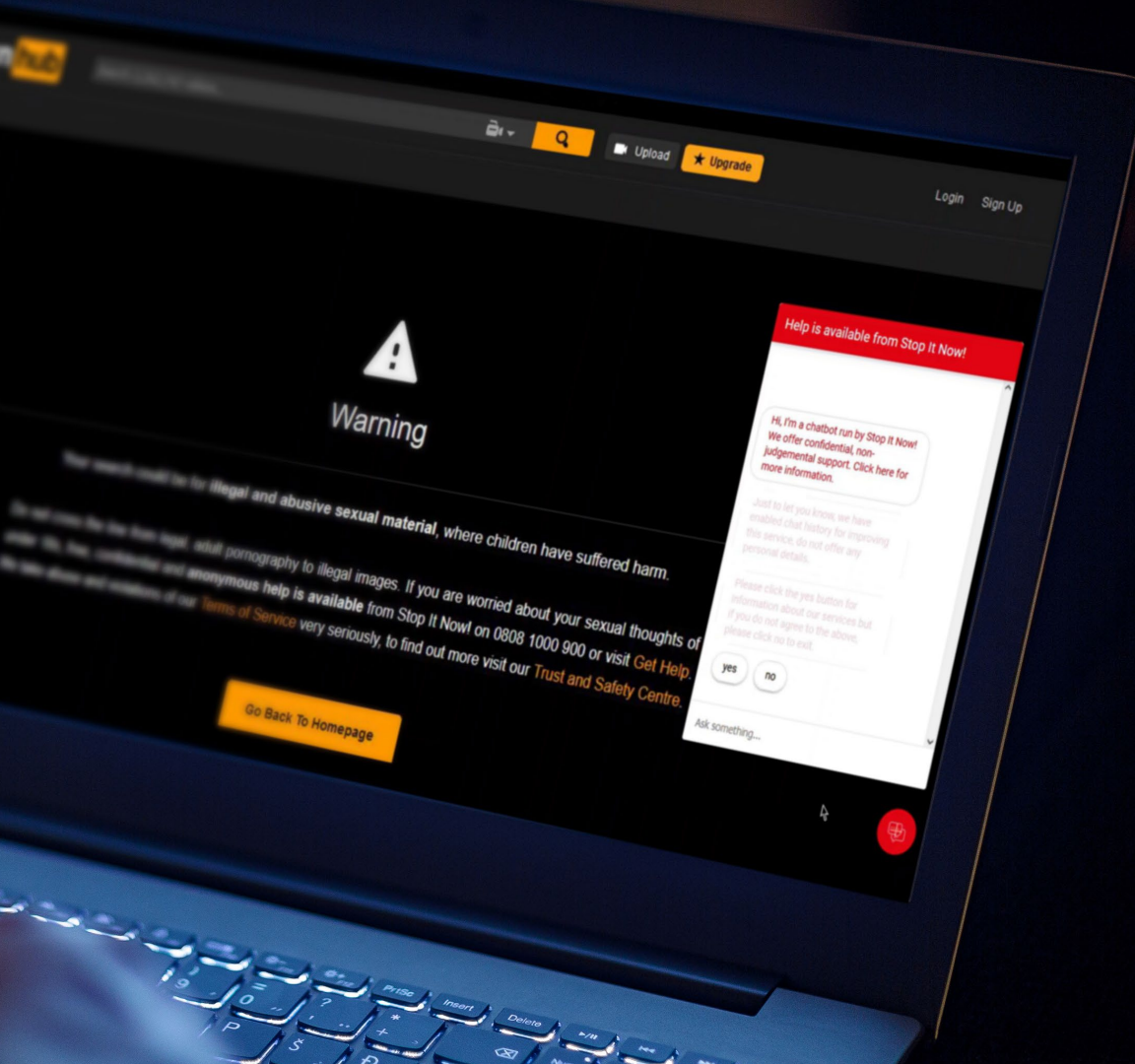
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# reThink Chatbot: Evaluation of CSAM Deterrence Messaging on Pornhub

Joel Scanlan, Jeremy Prichard, Lauren C Hall,  
Paul Watters, Richard Wortley





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# Warning

Your search could be for **illegal and abusive sexual material**, where children have suffered harm.  
This content is not safe for work, adult pornography to illegal images. If you are worried about your sexual thoughts of  
child abuse, see the **Safe Help** page. **anonymous help is available from Stop It Now!** on 0808 1000 900 or visit **Get Help**.  
We take this very seriously, to find out more visit our **Trust and Safety Centre**.  
Read our **Terms of Service** very seriously, to find out more visit our **Trust and Safety Centre**.

Go Back To Homepage

Help is available from Stop It Now!

Hi, I'm a chatbot run by Stop It Now!  
We offer confidential, non-judgemental support. [Click here for more information.](#)

Just to let you know, we have enabled chat history for improving this service, do not enter any personal details.


Please click the yes button for information about our services but if you do not agree to the above, please click no to exit.

yes  no

Ask something...










  
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# reThink Chatbot Evaluation

FEBRUARY 2024

AUTHORED FOR The Internet Watch Foundation in partnership with the Lucy Faithfull Foundation and Ayo  
BY Joel Scanlan, Jeremy Prichard, Lauren C. Hall, Paul Watters, Richard Wortley

[www.iwf.org.uk/chatbotreport](http://www.iwf.org.uk/chatbotreport)






# Evaluation Questions



	STAKEHOLDERS' OBJECTIVES & RESEARCH QUESTIONS	DATA OWNERSHIP	MEASURES
1	Examine whether the reThink chatbot has reduced CSAM searches on Pornhub	Aylo	<ul style="list-style-type: none"><li>• Number of sessions including CSAM searches</li><li>• Number of CSAM searches</li></ul>
2	Determine whether the reThink chatbot is effective at engaging 'at-risk' users who have entered CSAM searches on Pornhub	Aylo	<ul style="list-style-type: none"><li>• Number of chatbot views per sessions</li><li>• Number of chatbot triggers per session</li><li>• Search types after chatbot trigger</li></ul>
		IWF	<ul style="list-style-type: none"><li>• Length of interaction time</li><li>• Number of LFF URL clicks</li></ul>
3	Assess whether the reThink chatbot increases the number of individuals seeking support from LFF support and assistance	LFF	<ul style="list-style-type: none"><li>• Number of individual visits to helpline</li><li>• Number of individual visits to Get Help info pages</li></ul>

# Overall Picture



	<b>99.8%</b>	During the chatbot data collection period 99.83%- 99.87% of sessions did not contain a search that triggered the warning.
	<b>2.8M</b>	IWF <b>2.77m</b> report chatbot sessions. Aylo <b>2.2m</b> reported sessions shown warning.
	<b>1,656</b>	<b>1656</b> users said they were interested in Stop It Now services.
	<b>490</b>	<b>428</b> users from the chatbot to Stop It Now site. <b>490</b> sessions on Stop It Now website directly referred from the chatbot.
	<b>68</b>	<b>46</b> callers and chatters to the Stop It Now helpline identified as having interacted with the reThink chatbot. Between them these callers and chatters made a minimum of <b>68</b> contacts to Stop It Now.

# Aylo Data

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## Warning Message / Chatbot trigger data

- July 2021-September 2023
- Daily total of the number of searches undertaken on Pornhub in the UK using a potential CSAM-related term
- The daily potential CSAM-related searches as a percentage of all searches on Pornhub in the UK

## Session data

- May 2022-April 2023
- 7.72 gigabytes of text data
- Date session started and ended and
- List of text strings covering searches and video watched



# Lucy Faithfull Foundation Data

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## Helpline data

- March 2020-August 2023
- Call and live chat volume
- Notes on whether the contact mentioned chatbot

## Web traffic data

- April 2021-August 2023
- Visits to Stop It Now UK website and LFF global website



# Internet Watch Foundation Data

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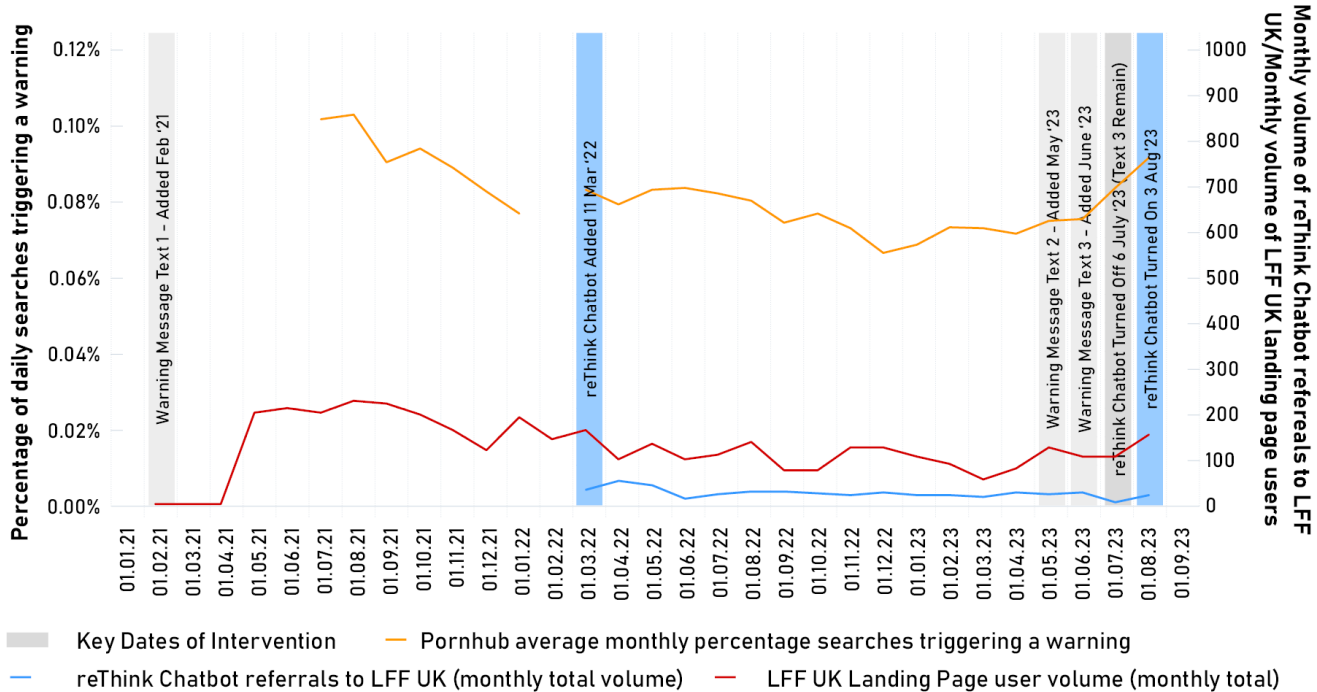
## Chatbot conversation data

- A sample that covered 132 discussions randomly sampled across the period
- A range of statistics relating to number of chat sessions and their length

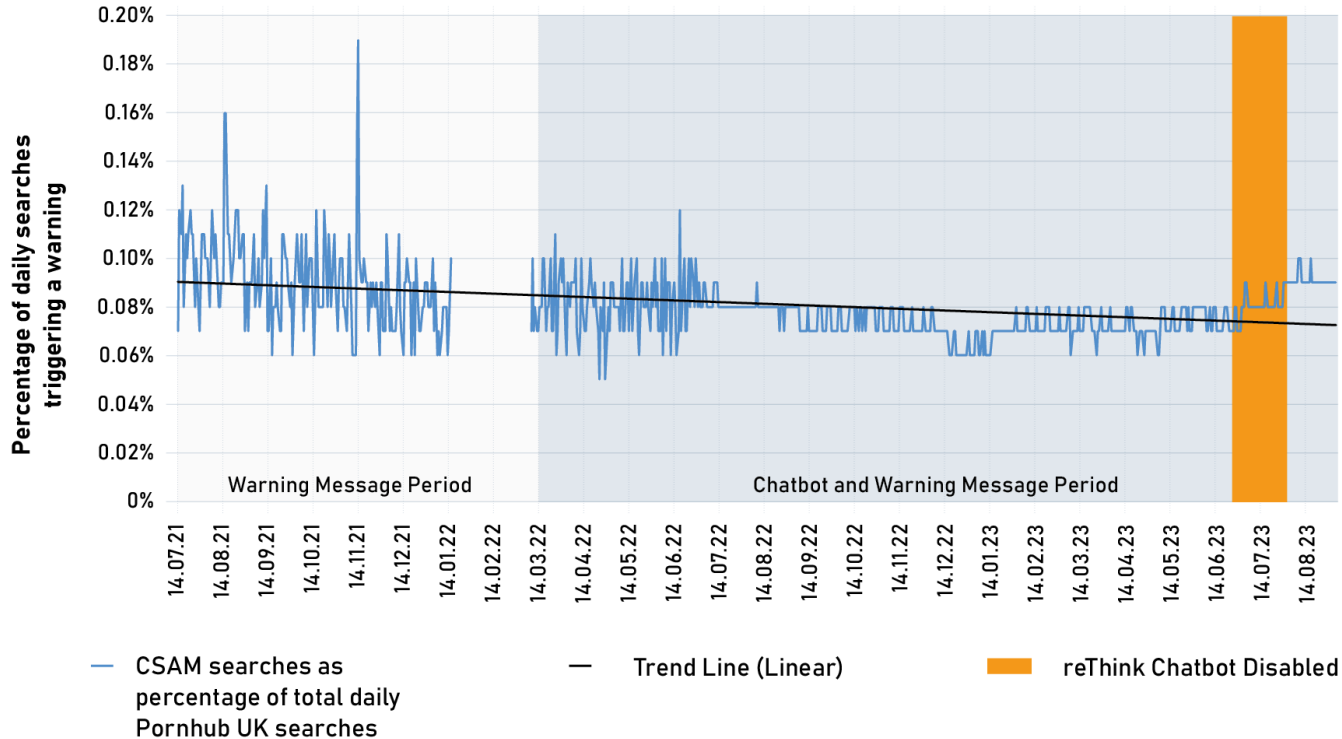




# Timeline



# Pornhub Search Volume in the UK

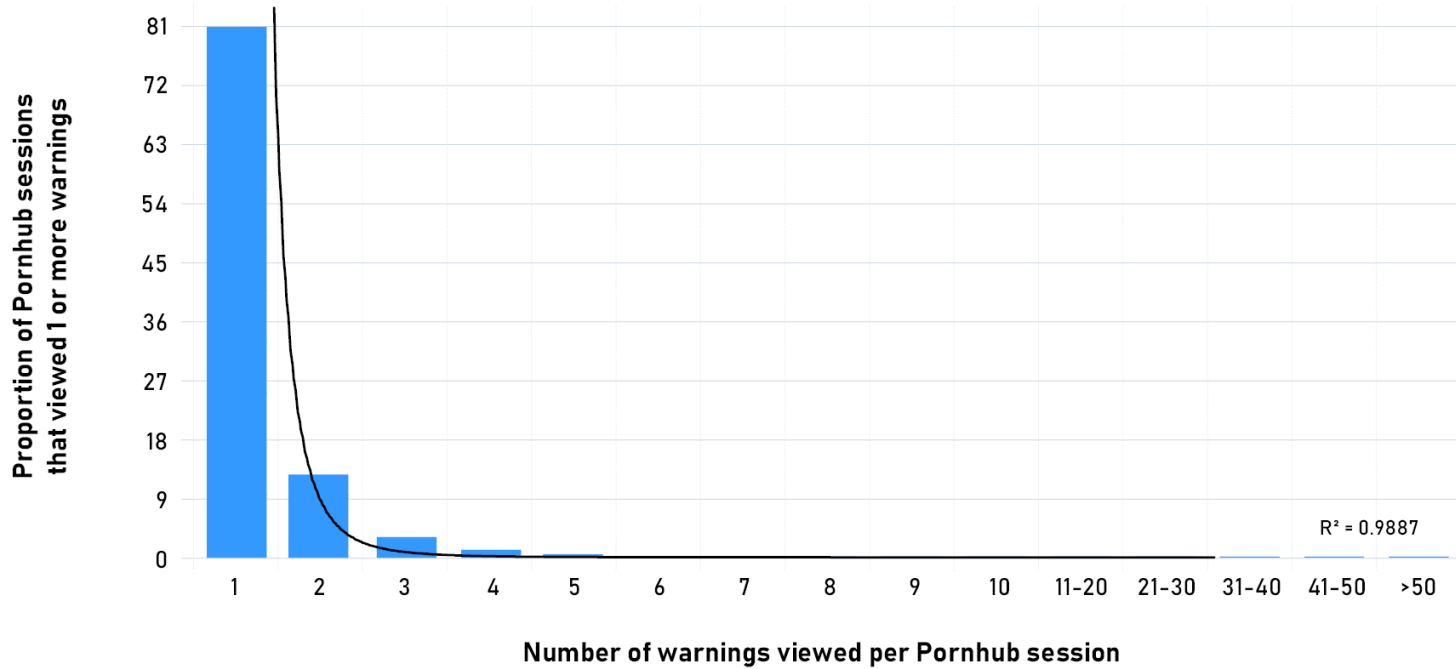


# Target Audience is Being Reached

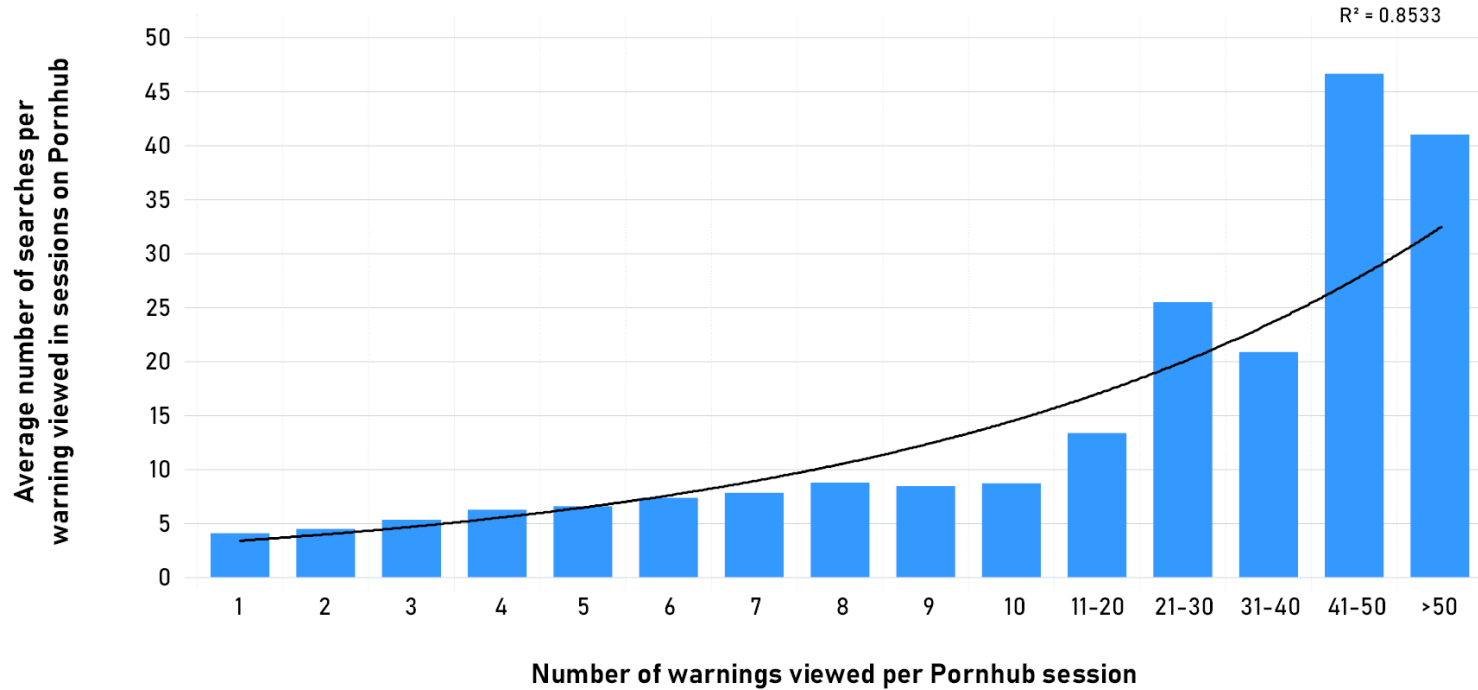


SEARCH TERM	NUMBER OF TIMES SEARCHED	NUMBER OF TIMES SEARCHED COMBINED WITH OTHER TERMS
kids or kid	102,680	268,795
young teen	67,829	177,883
child or children	90,883	196,113
young girl	46,955	281,654
young boy	40,456	185,448
ddlg ('daddy daughter little girl')	40,002	55,365
loli	33,559	113,813
little girl	29,423	87,836
lolita	26,064	43,333
child porn	12,184	14,543

# Most Users Desist



# But Some Don't..



# User Groups

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## Never Group

- 99.8% of users never enter a CSAM search term

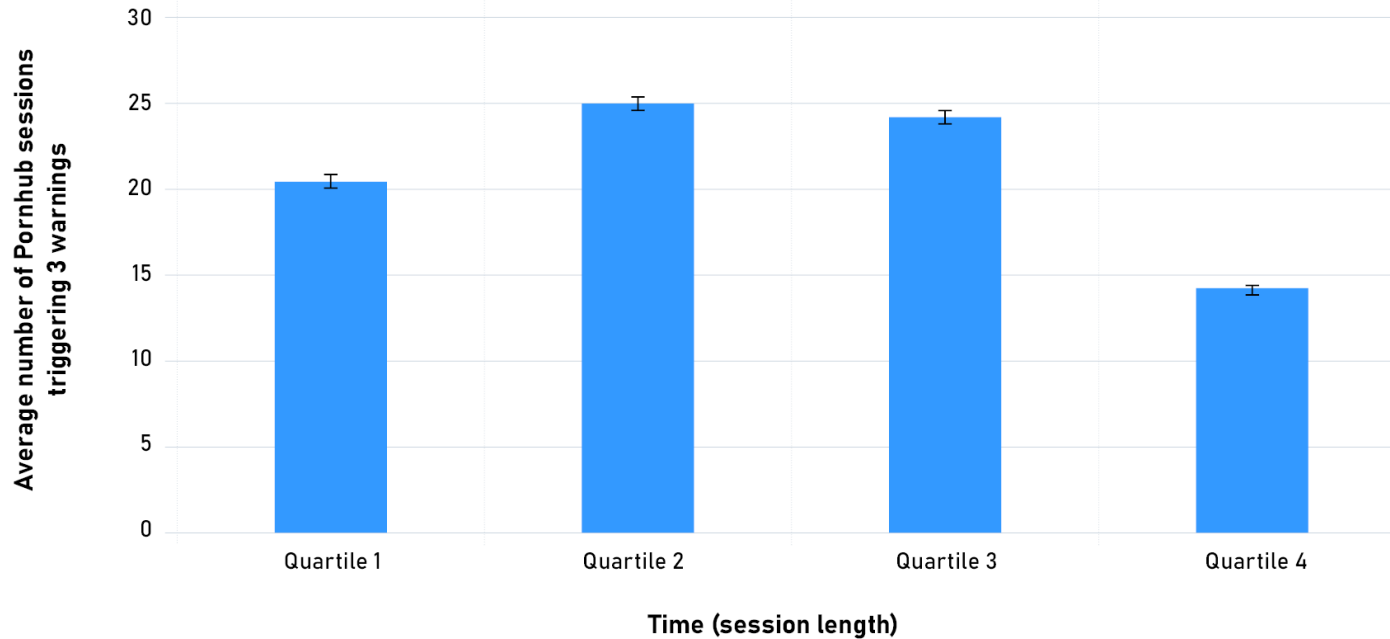
## Desist

- Of the 2,178,513 sessions during the data period that did receive at least one pop-up, almost 82% only saw a single warning message/chatbot

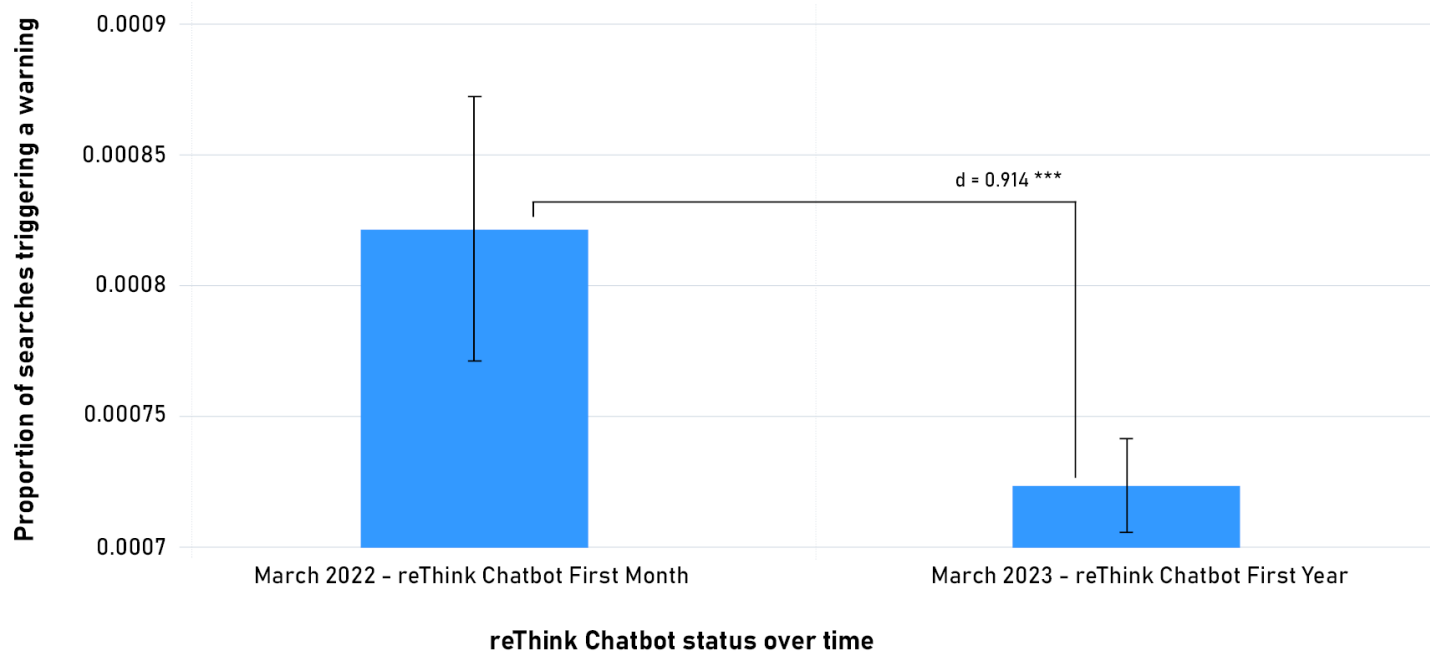
## Persist

- A small group of individuals is present that the warning does not appear to impact their search behaviour

# Sessions Trended Away From Potential CSAM

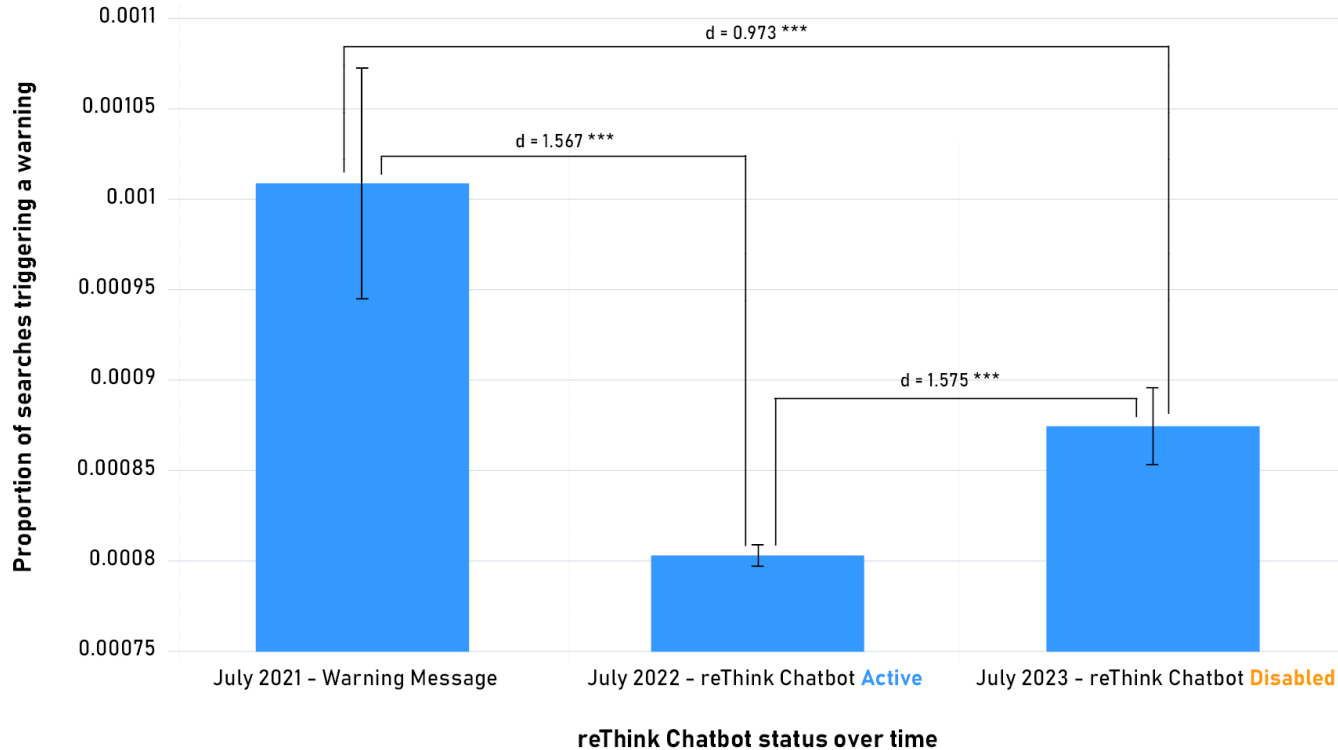


# Effect After 1-Year

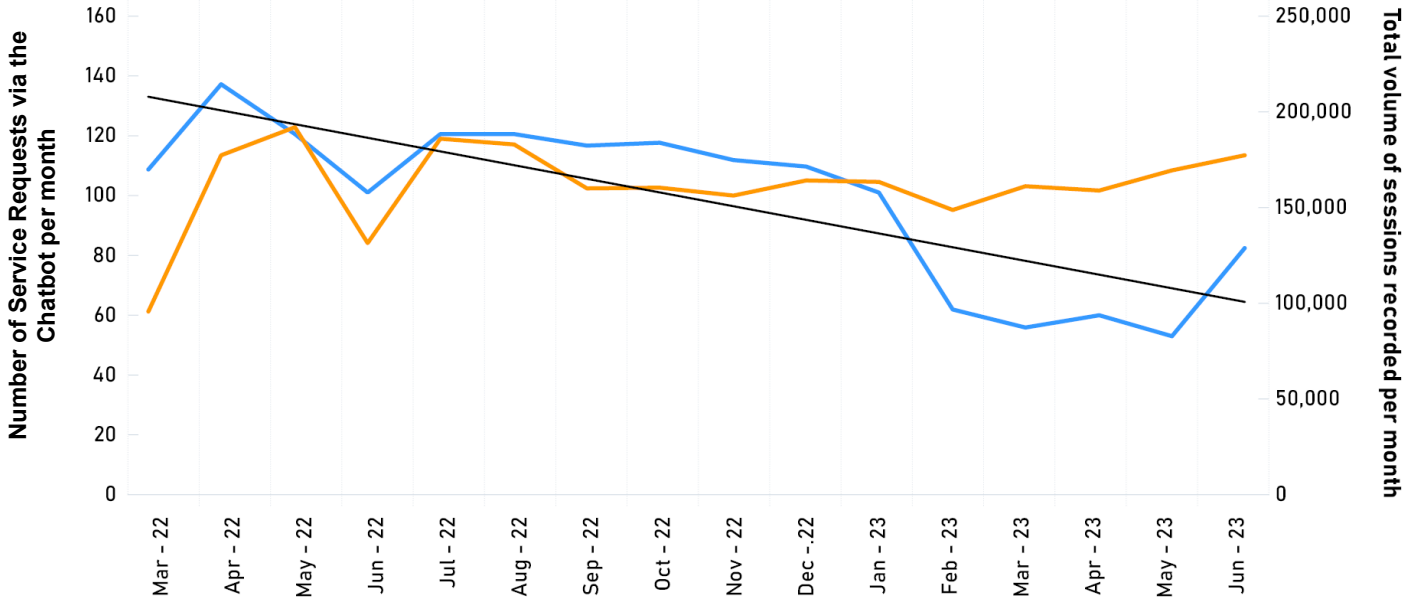




# Trend to Curb Behaviour



# Service Requests

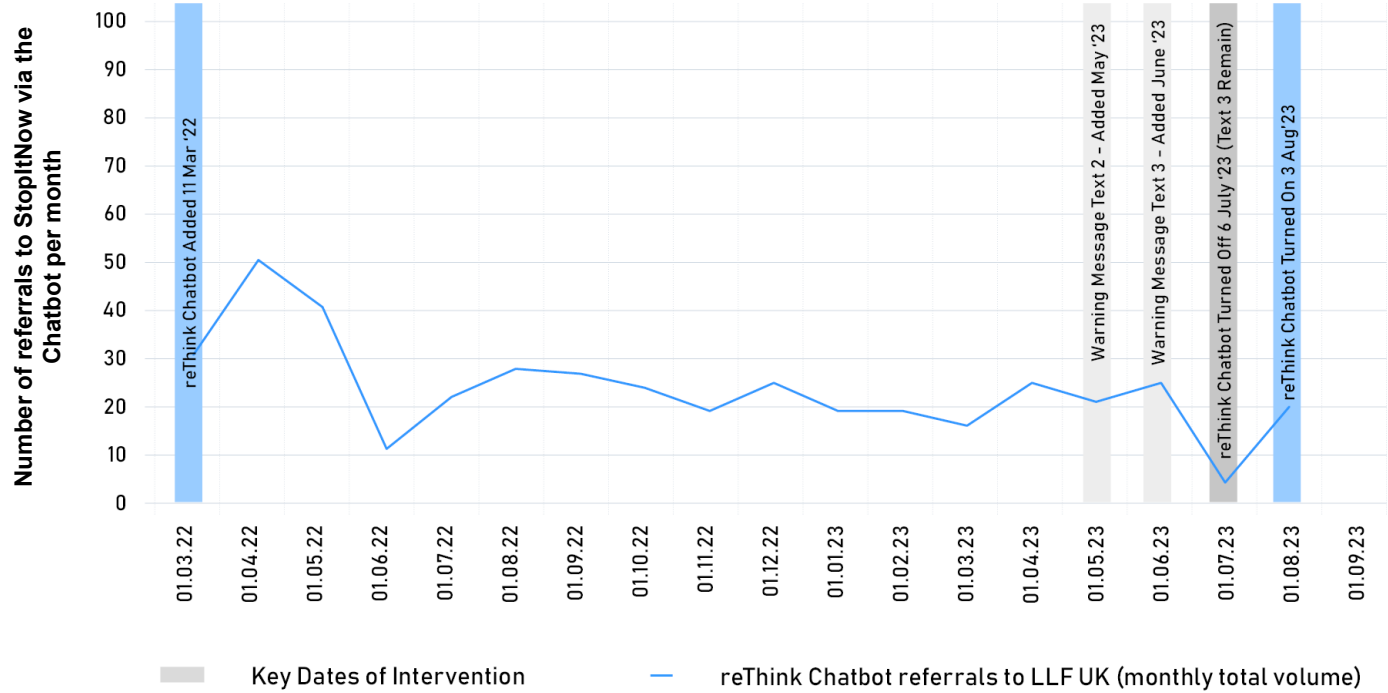


Yes requests for LFF UK services via reThink Chatbot

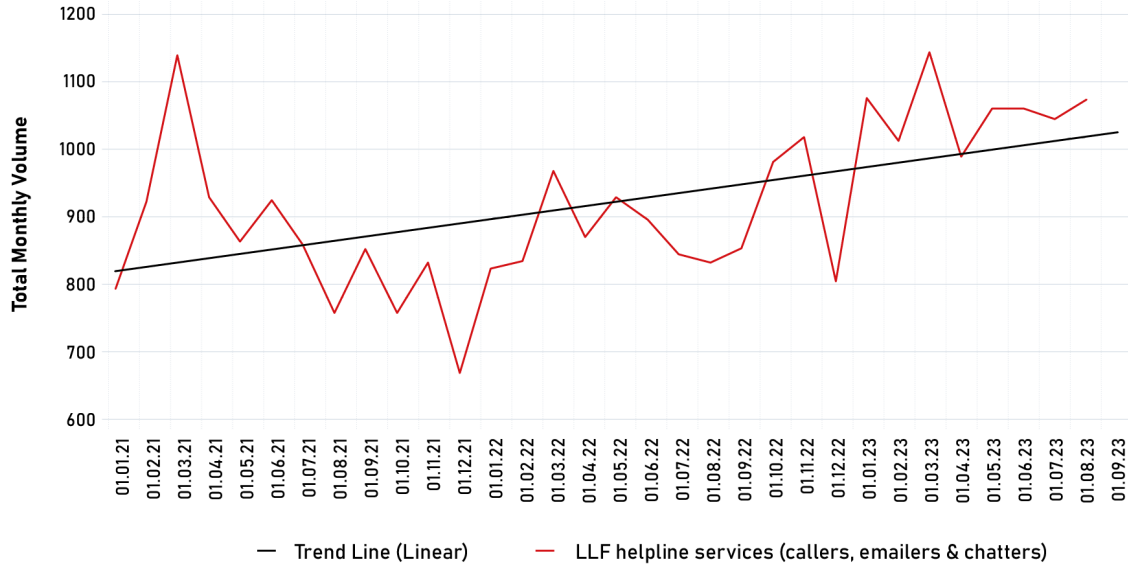
— Sessions

— Trend Line

# Chatbot Web Referrals



# Helpline During Intervention





# Key Recommendations

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- 1. The deterrence messages were a success and should be deployed in more contexts**
- 2. As the effect diminished over time, changes to the warning page may increase engagement**
- 3. A more complex chatbot able to handle a broader range of inputs**


# Summary

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- **The warning message with the chatbot was shown 2.8 million times**
  - Most sessions only included a single CSAM search
  - Most sessions showed desistance behaviour following seeing warning messages
- **Impact**
  - Reduction in CSAM searches
  - 1656 users requested details of LFF services
  - 490 users visited Stop It Now following seeing a warning message
  - 68 callers were identified as having interacted with the chatbot





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 Safe Online

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**Thank you**