Behavioural Audit of Livestreaming Services:

Methodology Paper

Report

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1. Overview

This report outlines the methodology used by Ofcom's Behavioural Insight Hub to examine livestreaming functionalities on major online platforms. This research was undertaken to support the development of regulatory codes of practice under the UK Online Safety Act (OSA) related to Livestreaming. It is also relevant to recent announcements by the UK Government that will prevent under-16s from creating livestreams. Livestreaming features will remain available to 16 and 17-year-olds but will be restricted by default.

Using researcher-created accounts with structured, screen-recorded journeys across several platforms, the study systematically maps how viewers and creators of livestreams: sign-up, discover content, go-live, interact with other users, utilise monetisation features, use safety features, and end livestreams. The methodology is carefully designed to replicate snapshots of real-world user experiences while maintaining stringent data protection and safeguarding standards.

The audit provides evidence to inform Ofcom's regulatory approach, identifying how platform design of livestreaming functionalities influences user behaviour and online safety. The study does not assess individual users but rather documents and analyses the systems and processes shaping livestreaming experiences. The research employs a similar approach to previous behavioural audits.[1][2] The findings from this audit are presented separately in an accompanying report, which synthesises the key cross-platform observations identified through the audit. Key findings include a systematic comparison across platforms and how platform design features, and Online Choice Architecture (OCA),[3] could potentially influence user behaviour and online safety.

Behavioural Audits – In Summary

- Behavioural audit methodology allows for structured observation of platform interfaces and user journeys, identifying how design features may influence behaviour, including potential risks for harm.
- Researcher accounts, including adult users, older teen users (17 years old), younger teen users (14 years old), child users (7 years old) and non-logged in access, replicate typical user pathways without using real personal identifiers.
- Screen recording and secure data storage enable detailed analysis of platform design, prompts, and reporting mechanisms, through a comprehensive taxonomy and structured codebooks.
- The study was split into two parts: viewer perspectives and creator perspectives. They investigated complementary areas of interest to explore areas identified as important for policy development.
- Ethical and safeguarding protocols include engagement rules, partial redaction of identifiers, and a comprehensive Data Protection Impact Assessment.
- Limitations include the audit being a snapshot of platform design based on researcher-created accounts, which may not fully reflect the experiences or behaviours of typical users and may become outdated as platforms evolve. The audit also covered selected user journeys rather than all possible platform experiences and did not directly measure user behaviour or the prevalence of harms.

[1] Ofcom, 2025, A behavioural audit of online services in the UK (technical report)
[2] Ofcom, 2026, Behavioural Audit of Services with Advertising Functionality
[3] Online choice architecture (OCA) refers to the design of digital environments that influences how individuals make decisions and interact with online platforms. (Competition & Markets Authority, 2022, Online Choice Architecture: How digital design can harm competition and consumers)

2. Introduction and Research Aims

The UK's Online Safety Act requires certain online service providers to implement proportionate systems and processes to protect users in the UK from illegal harms, and special protections for children from other types of harm.

Livestreaming is a very popular use of the internet, especially by children. Ofcom research shows 71% of children aged 8-17 said they had watched a livestream while 28% said they had livestreamed their own video.[4] Ofcom's research aims to provide evidence to support the development of measures to protect viewers and creators of livestreams in the UK. Livestreaming is a risky functionality according to Ofcom Risk Profiles, with substantial evidence of child sexual exploitation and abuse (CSEA) risks. The UK government recently announced restrictions for under-16s accessing risky functions on services such as gaming, including communicating with strangers and creating livestreams. Additionally, auto play and personalised feeds will be restricted by default for 16–17-year-olds. These findings contribute to the broader understanding of safety-by-design issues around discovery, interaction, reporting and monetisation of content online which is relevant to these restrictions and wider policy.

The behavioural audit does not assess individual users but systematically documents platform design features and processes influencing the viewer and creator experience in relation to viewing and creating livestreams. Livestreaming, due to its real-time, ephemeral nature poses significant risk of harm. These risks are amplified by supporting functionalities such as the ability to post comments and send gifts.[5]

3. Overall Research Design

3.1 Behavioural Audit Approach

The study utilises a behavioural audit methodology, involving structured observation of platform interfaces and user journeys with accounts created specifically for research purposes. This approach avoids relying on self-reported data, directly examining how platform design and choice architecture influence user behaviour and risk exposure. Direct observation allows systematic comparison across platforms using a common analytical framework.

3.2 Platforms Covered

Instagram, TikTok, Twitch and YouTube were selected based on their popularity as a livestreaming platform[6] and accessibility for researchers.

Table 1: Platforms selected for audit with Livestreaming functionality

Platform	Feeds selected
Instagram	Viewer[7]
TikTok	Viewer and Creator[8]

[4] Ofcom, 2026, Children who create and view livestreams
[5] Ofcom, 2025, Consultation on Additional Safety Measures
[6] Ofcom, 2026, Children's usage of livestreaming (Livestreaming report 3)
[7] Due to low prevalence of livestreams on our researcher accounts, fewer viewer journeys were completed. No creator journeys were completed as follower thresholds meant Ofcom researcher accounts could not create livestreams, and the third-party research provider could not access enough Instagram-first creators.
[8] Creator journeys and snapshots were captured by adult accounts through a third-party research provider

Twitch	Viewer and Creator
YouTube	Viewer and Creator

The platforms were notified that the audit was being conducted, and a transparency notice was published on the Ofcom website to inform the public about the research.[9]

4. Researcher Accounts

Data collection was conducted in November 2025 – March 2026, using researcher-created accounts operated by trained Ofcom researchers. For each platform, researcher accounts were created on desktop and Apple mobile devices and across multiple age groups including adult accounts, older teen accounts (17-year-old), younger teen accounts (14-year-old) and child accounts (7-year-old). Non-logged in experiences were also explored. Fictional names, randomly generated dates of birth, gender identifiers (where required), and unique, non-Ofcom email addresses were used to ensure functional access without using personally identifiable information.

Research was conducted on Ofcom-owned devices, used exclusively for this project and operated within Ofcom offices. Devices were securely stored when not in use, and fieldwork followed a structured schedule. Some platforms required additional software to be installed for creating a livestream. OBS (Open Broadcaster Software)[10] is a popular streaming software, which we used for the purposes of this research.

We collected the data for the creator experience for TikTok adult accounts through an external research partner. Our Ofcom researcher accounts did not have enough followers to be eligible to livestream on TikTok. Findings from the fieldwork were integrated into Ofcom codebooks (see Section 5.1b for details) and findings.

5. Key areas and User Journeys

5.1 Key Areas Explored

How do

- …users sign-up to livestreaming platforms?
- …users discover livestreamed content?
- …creators set up a livestream?
- …users interact with each other during a livestream?
- …viewers send gifts/money on a livestream?
- …creators receive gifts/money on a livestream?
- …users utilise safety tools?
- …creators end the livestream?

5.2 User Journeys

We outline all the journeys completed as part of the audit, with supporting explanations given in Table 2.

[9] Transparency notice: Research on online platforms to explore online safety

[10] OBS works by linking to a user's account on a livestreaming platform and transmitting video and audio feeds to that platform. This allows users to create and broadcast livestreams through the software.

Table 2: Journey completion across user profiles

	Instagram	TikTok	Twitch	YouTube
Adult	Complete for viewer on mobile and computer No creator journeys due to platform rules	Complete for viewer on mobile and computer Complete for creator on mobile through third party	Complete for viewer on mobile and computer Complete for creator on mobile and computer (with streaming software)	Complete for viewer on mobile and computer Complete for creator on mobile (with streaming software on computer) and computer
Older teen	Complete for viewer on mobile No creator journeys due to platform rules	Complete for viewer on mobile and computer No creator journeys due to platform rules	Complete for viewer on mobile and computer Complete for creator on mobile and computer (with streaming software)	Complete for viewer on mobile and computer Complete for creator on mobile (with streaming software on computer) and computer
Younger teen	Complete for viewer on computer No creator journeys due to platform rules	Complete for viewer on mobile and computer No creator journeys due to platform rules	Complete for viewer on mobile and computer Complete for creator on mobile and computer (with streaming software)	Complete for viewer on mobile and computer No creator journeys due to platform rules
Child	Not completed due to platform rules	Not completed due to platform rules	Not completed due to platform rules	Complete for viewer on computer and mobile No creator journeys due to platform rules
Non-logged User	No viewer journeys due to sign-in requirements No creator journeys due to platform rules	Complete for viewer on computer No creator journeys due to platform rules	Complete for viewer on computer No creator journeys due to platform rules	Complete for viewer on computer and mobile No creator journeys due to platform rules

5.3 Researcher Behaviour and Rules of Engagement

Researchers followed a strict protocol and did not engage with content or users whose follower or viewer counts were below pre-agreed thresholds. Accidental interactions were recorded and assessed as minimal impact. Researcher accounts followed the reporting and blocking process only on other researcher accounts.

6. Data Collection

6.1 Developing a framework and a codebook for the audit

Online Choice Architecture (OCA) refers to the design of digital environments that influences how individuals make decisions and interact with online platforms. Based on the Competition and Markets Authority (CMA) definition, this comprises three components:

a) Choice structure: how options are designed and presented
b) Choice information: how users receive information about their choices
c) Choice pressure: indirect influences affecting decisions

To underpin the audit, a rapid evidence review was undertaken, focusing on the online choice architecture (OCA) of the platforms within the areas of interest. This review drew upon research from Ofcom,[11] the Competition and Markets Authority (CMA),[12] and other emerging studies in the developing field of OCA practices on social media. We also used Ofcom's A-SPARC model.[13] The list of relevant OCA practices can be found in the table below.

Table 3: Relevant OCA practices[14]

Choice Structure	Choice Information	Choice Pressure
Autocomplete	Bait and switch	Anticipation mechanisms
Autoplay	Comparison prevention	Commitment
Bundling	Complex text	Confirm-shaming
Choice overload	Drip pricing	Fake social proof
Click fatigue	Fake reviews	Gamification
Click wrap agreements	Framing	Impulse activating features
Content labelling	Information overload	Messengers
Cooling off periods	Intermediate currency	Nagging
Decoys	Intervention prompts	Notifications
Defaults	Limited feedback	Parasocial features
Ephemeral content	Private feedback	Prompts and reminders
False hierarchy	Prompts to reconsider	Real time interactions
Forced actions / outcomes	Sneak into basket	Recapture notifications
Friction (or lack of)	Testimonials	Reinforcement
Friend spam	Tool transparency	Social accountability
Habit swapping	Unclear repercussions	Social comparison
Hidden options / information	Unclear value exchange	Social feedback
Infinite scroll		Social proof cues
Irreversibility		
Lures		

[11] Ofcom, 2025, Behavioural Audit of Online Services; Ofcom, 2024, Understanding Online Choices, Preferences, and Welfare
[12] Competition & Markets Authority, 2022, Online Choice Architecture How digital design can harm competition and consumers
[13] Ofcom, 2021, The A-SPARC model of online platforms
[14] Definitions of the OCA practices observed in this audit are in the Key Findings Annex

Partial goal fulfilment		
Partitioned pricing		
Pull to refresh		
Random awards		
Ranking		
Recommendation / personalisation		
Reference pricing		
Sensory manipulation		
Trick questions		
Unclear promotional labelling		

The resulting taxonomy distinguishes between 'dark', 'grey', and 'bright' patterns. Dark patterns refer to deliberate design strategies that may mislead or pressure users into actions that are not in their best interests. Grey patterns are more ambiguous, with their effects varying according to user preferences and context. In some cases, they may nudge users in ways that do not align with their interests, while in others they can enhance the user experience. Bright patterns, by contrast, are practices that promote trust, loyalty, and respect, supporting users in making informed and intentional choices without undue influence, and thereby fostering a more balanced and user-centric experience.

Developing the codebooks

This taxonomy was integral to structuring the codebook used for data collection, with the codebook containing detailed questions tailored to each key area. Researchers systematically responded to these questions throughout the audit process.

To support consistency in coding and uphold a rigorous methodological approach, the codebook included detailed annotations. Multiple workshops and weekly meetings were held, enabling researchers to cross-check coding decisions and align their interpretations of instructions and definitions. While the qualitative nature of the research meant some degree of individual interpretation was inevitable, uncertainties were routinely addressed through collaborative discussion. This ensured a coherent and uniform approach to coding across all data collection activities.

6.2 Screen Recording and Capture

Screen recording was the primary data collection method, capturing complete user journeys. Recordings included interface layouts, prompts, default settings, decision points, and publicly available content.

6.3 Ethical, Safeguarding, and Data Protection Considerations

Research was conducted under a comprehensive Data Protection Impact Assessment, with safeguards including minimisation of data collection, avoidance of active user engagement, partial redaction of identifiers, strict access controls, and procedures for handling illegal or harmful content. A safeguarding guidance document was developed for the audit and applied throughout the fieldwork. This guidance sets out the procedures to be followed if researchers are exposed to potentially illegal or harmful content. It also provides broader safeguarding and wellbeing guidance for researchers and has been developed in line with Ofcom's wider Colleague Safeguarding Policy.

Transparency was maintained through service engagement and publication of an updated transparency notice.[15]

7. Data Analysis and Reporting

The analysis phase focused on identifying platform design patterns, assessing consistency and variation across services, and pinpointing potential risk areas relevant to livestreaming. Researchers used a structured codebook, with senior researchers quality-assuring at least 10% of user journeys. Findings were synthesised from coded data during collaborative discussions and were reported transparently. Reporting of the findings gave prominence to platform design features, cross-service differences, and regulatory risk points, all contextualised within the specific timeframe of the audit to reflect the dynamic nature of online platforms.[16] The outputs from this analysis are available here.

8. Limitations

There are four key limitations to note regarding the audit methodology and findings. First, the audit was conducted using researcher-created accounts. As a result, the observations may not reflect those of typical users; particularly users with long-standing accounts or established networks, and those on personal internet connections. Research was conducted in Ofcom offices using devices connected via GovWifi and, where relevant, private browsing modes to limit the influence of Ofcom's network and previous browsing history. However, it is unclear how far this may have affected the service inferences made about users.

Second, the audit presents only a snapshot of platform features and functionalities as they existed during November 2025 – March 2026; platforms frequently update their services or cached content, so some details described may no longer be current. For example, this research was conducted before Apple introduced new age checks in April 2026, therefore these new age checks may impact some findings in this research.

Third, the audit also did not cover every possible journey across each platform, account type and device. Some creator journeys were restricted by eligibility requirements, assessed only through adult accounts, or dependent on desktop broadcasting software. The findings should therefore be read as a structured comparison of key livestreaming journeys, not a comprehensive assessment of every possible experience.

Fourth, the audit did not measure the prevalence of harm or assess individual users. It focused on how platform design may influence behaviour, risk exposure and users' ability to manage and respond to harm in livestreaming environments. As such, the findings reflect anticipated behavioural impacts based on observed design features, rather than direct evidence of user behaviour over time.

[15] Ofcom, 2026, Transparency notice: Research on online platforms to explore online safety

[16] We do not identify any platform in any of the published findings. All findings are anonymous, and where necessary platform names are redacted.