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Exhibit J

PRELIMINARY – This chart is an initial mapping prepared before discovery and prior to any Infringement Contentions.

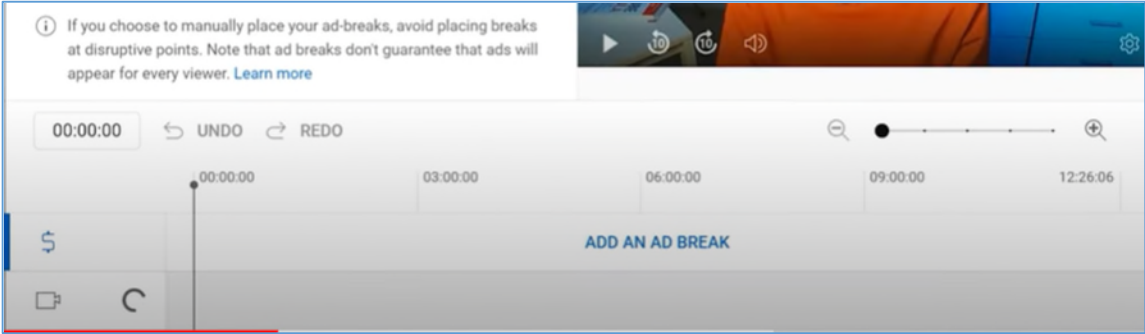
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U.S. Patent No. 8,719,886

Sandpiper CDN

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8,719,886	Google CDN
1. A computer-implemented method for delivery of video content across a network comprising:	Google uses and provides content delivery network(s) (“Google CDN”), including Google’s internal services and services Google offers to third parties that are used to provide content, such as webpages and/or video streams, over a network. Google CDN includes services such as YouTube, for example, along with Google’s own use of technologies to provide content in a network. Google provides a computer-implemented method for delivery of video content across a network. Google provides a method for delivery of pre-recorded videos, such as content user-uploaded content or TV shows. As one example, a creator of content inserts triggers into a video that will be processed by Google.  https://www.youtube.com/watch?v=Nz43xdsf_i0 As another example, YouTube provides video, including live streaming, with ad breaks.

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	YouTube Live is an easy way for Creators to reach their community in real time. Whether streaming an event, teaching a class, or hosting a workshop, YouTube has tools that will help manage live streams and interact with viewers in real time. Creators can live stream on YouTube via webcam, mobile, and encoder streaming. Webcam https://www.youtube.com/howyoutubeworks/product-features/live/#youtube-live For Creators to monetize their live stream or Premiere, their channel needs to be part of the YouTube Partner Program (YPP). Creators have several ways to earn money from live streams and Premieres: Ads, Super Chat and Super Stickers, and Channel Memberships. https://www.youtube.com/howyoutubeworks/product-features/live/#monetization
receiving a video stream from a content source for delivery to a client of a content publisher, wherein the client subscribes to the content	Google receives a video stream from a content source for delivery to a client, such as an end user, where the end user subscribes to receive the video content. For example, Google's YouTube receives content from creators and provides live streams for delivery to subscribers of the creators.

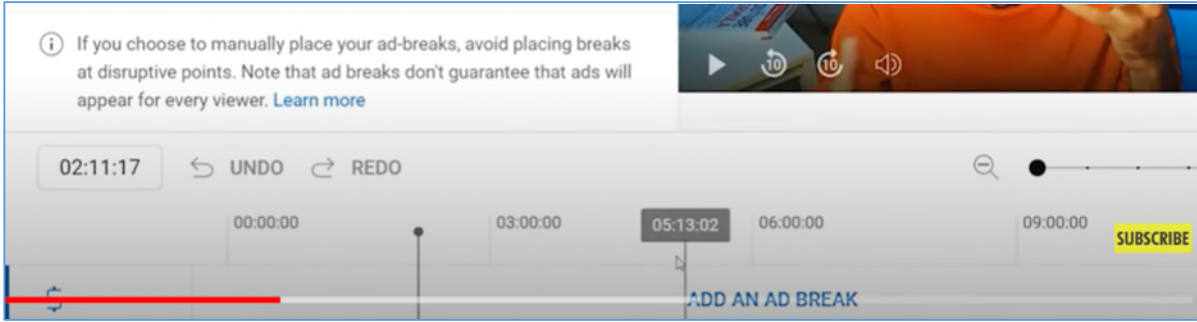
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publisher to receive video content;	Monetisation Choose how you want to earn money from your video Monetisation Select Type of ads ? https://www.youtube.com/watch?v=Nz43xdsf_i0 MECHANICS OF GOING LIVE Monetizing your live streams Advertising revenue: Get ad revenue from display, overlay, and video ads. More about monetization Each feature has its own set of eligibility requirements on top of subscriber and view count requirements. https://kstatic.googleusercontent.com/files/6a52d1116197cb18ec9e18691e2b31b25676f7f4d8b37ad74fb56526034674aad137626f3331e9fc925a08dd9f3e1085a4b1a4e532f4e1fabec98ffd5e50f56d

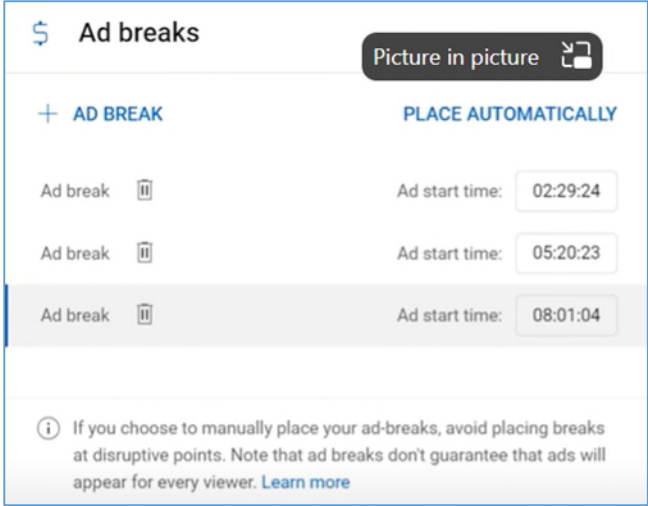
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detecting a trigger signal within the video stream, wherein the trigger signal is indicative of a temporal mark injected into the video stream by the content publisher;	Google detects trigger signals in a video stream indicative of a temporal mark injected by a publisher, for example trigger signals that indicate temporal marks for advertisements, such as during YouTube live streaming events. As one example, Google’s YouTube inserts triggers for mid-roll ads including during live streams, or a video creator can manually insert triggers for ads. As shown below, Google instructs creators to avoid placing breaks at disruptive points, indicating the ad breaks correspond to trigger signals indicative of temporal marks (such as at 05:13:02 below). 

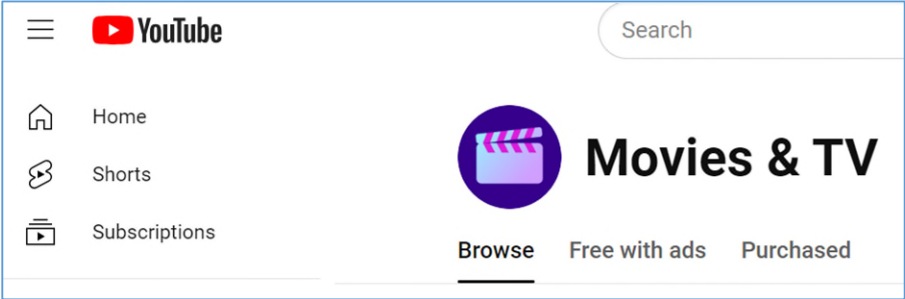
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	 https://www.youtube.com/watch?v=Nz43xdsf_i0 Insert mid-roll ads Insert mid-roll ads for a live stream: 1. Open YouTube Studio. 2. Click Create > Go live. 3. Start a live stream now from the Stream tab or schedule a live stream from the Manage tab. 4. From the top, click Edit > Monetization. 5. Make sure Monetization is set to On. 6. Choose your live ad settings: a. Let YouTube insert ads for you: YouTube serves mid-roll ads to viewers at opportune moments during a live stream and you choose the frequency level of ad breaks: i. <u>Conservative</u>: lowest frequency and lowest earnings potential ii. <u>Balanced</u>: mid-level frequency and medium earnings potential iii. <u>Aggressive</u>: highest frequency and highest earnings potential iv. <u>Note</u>: We still let you know when an ad is about to display for viewers, in case you want to skip it

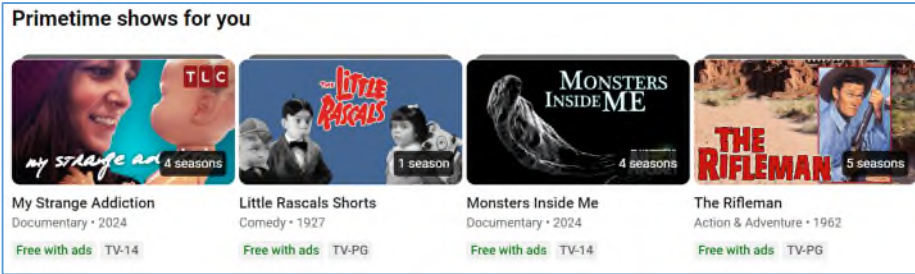
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	b. Choose how ads appear: You can manually select each mid-roll ad break OR choose the amount of time you want to pass between ads. If you choose to set timed ads, you can choose between 6, 12, 18, 24, or 30 minutes. i. <u>Note:</u> Your earnings potential may be lower than when you let YouTube insert ads for you. 7. Click Next and continue setting up your live stream. Notes: • It is not guaranteed that all viewers will get a mid-roll ad. If no ad runs, viewers will continue to watch your live stream. • If a viewer skips the ad or the ad ends, they will rejoin the live stream. Delay a mid-roll ad If you choose to let YouTube insert mid-roll ads for you, you can delay mid-roll ads during important moments when you don't want viewers interrupted. In the Live Control Room, go to the top right and click Delay ads (\$). Mid-roll ads are delayed from displaying for viewers for 10 minutes. A 5-second countdown will surface in the LCR for you before ads resume. https://support.google.com/youtube/answer/7385599?sjid=2366353019137992062-NC As another example, Google detects a trigger signal in a video stream when showing episodes of TV shows “Free with ads” using YouTube. 

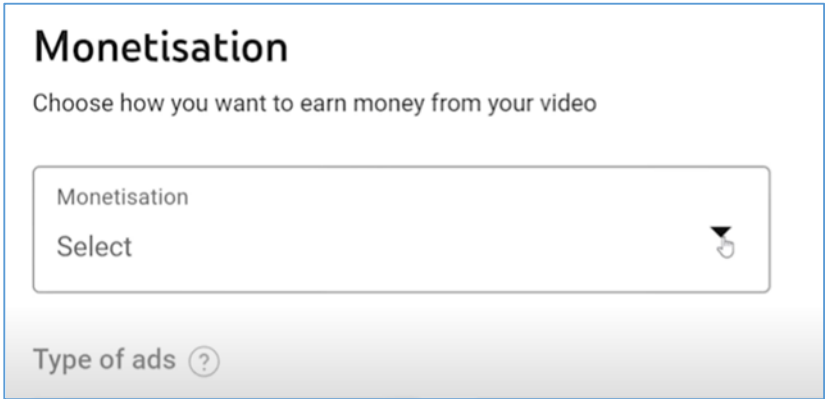
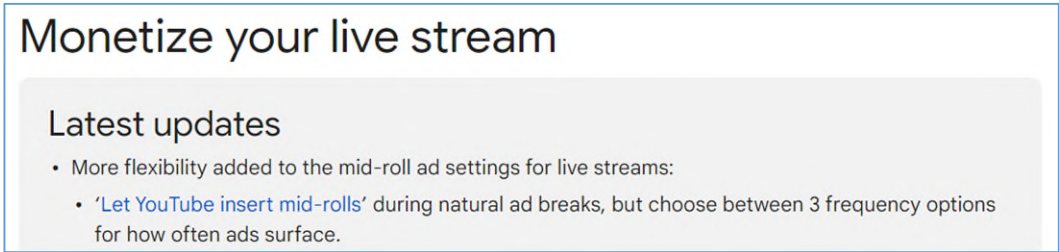
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	 https://www.youtube.com/feed/storefront?bp=ogUCKAY%3D
processing the trigger signal to determine whether to modify delivery of the video stream to the client; and	Google's YouTube processes the trigger signal to determine whether to modify delivery of a video stream, for example to show an ad. Ad personalization Google makes your ads more useful on Google services such as Search and YouTube (including portions of YouTube TV). You can control what info we use to show you ads by visiting your ad settings. https://support.google.com/youtubetv/answer/7126139?hl=en#zippy=%2Clive-tv%2Cad-personalization Delay a mid-roll ad If you choose to let YouTube insert mid-roll ads for you, you can delay mid-roll ads during important moments when you don't want viewers interrupted. In the Live Control Room, go to the top right and click Delay ads. Mid-roll ads are delayed from displaying for viewers for 10 minutes. A 5-second countdown will surface in the LCR for you before ads resume. https://support.google.com/youtube/answer/7385599?sjid=2366353019137992062-NC#YTinsertmid

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if necessary, modifying delivery of the video stream in accordance with the processing of the trigger signal,	If necessary, Google’s YouTube modifies delivery of the video stream in accordance with the processing of the trigger signal, for example to insert a personalized ad if the live stream includes ads.  https://www.youtube.com/watch?v=Nz43xdsf_i0  https://support.google.com/youtube/answer/7385599?sjid=2366353019137992062-NC
wherein processing the trigger signal comprises querying a data repository having information	Google’s YouTube processes the trigger signal including querying a data repository with information related to a content programming schedule associated with the content publisher. As one example, Google queries a repository with information related to ad breaks. As another example, Google queries a repository with information related to an ad schedule from a creator, as shown further below.

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related to a content programming schedule associated with the content publisher.	Ad breaks + AD BREAK PLACE AUTOMATICALLY <table> <tr> <td>Ad break</td> <td>Ad start time: 02:29:24</td> </tr> <tr> <td>Ad break</td> <td>Ad start time: 05:20:23</td> </tr> <tr> <td>Ad break</td> <td>Ad start time: 08:01:04</td> </tr> </table> If you choose to manually place your ad-breaks, avoid placing breaks at disruptive points. Note that ad breaks don't guarantee that ads will appear for every viewer. Learn more https://www.youtube.com/watch?v=Nz43xdsf_i0 Create an ad schedule An ad schedule allows you to display ads or change bids during certain times. You can create a maximum of 6 ad schedules per day for each campaign in your account.	Ad break	Ad start time: 02:29:24	Ad break	Ad start time: 05:20:23	Ad break	Ad start time: 08:01:04
Ad break	Ad start time: 02:29:24						
Ad break	Ad start time: 05:20:23						
Ad break	Ad start time: 08:01:04						

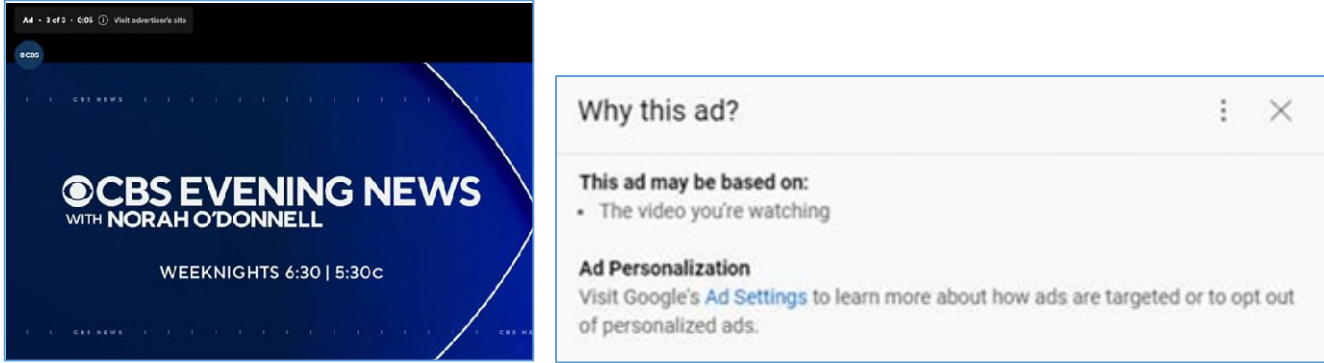
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	Ad personalization Google makes your ads more useful on Google services such as Search and YouTube (including portions of YouTube TV). You can control what info we use to show you ads by visiting your ad settings. https://support.google.com/youtubetv/answer/7126139?hl=en#zippy=%2Clive-tv%2Cad-personalization Channel level settings for mid-roll ads Monetized channels without rights management can set mid-roll ad defaults for future live streams at the channel level. Channel level settings let you choose monetization settings that will be the default for any newly created live streams. To choose your channel level settings: Open the Live Control Room > In the bottom-left corner, click Settings ⚙. Live stream ad revenue You can view a breakout of your ad revenue from live streams and live replays in YouTube Analytics. To view your ad revenue breakout for live streams, select the Live filter. https://support.google.com/youtube/answer/7385599?sjid=2366353019137992062-NC#channel_settings_midroll

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3. The computer-implemented method as in claim 1, further comprising: receiving a response from the data repository that includes synchronization information for modifying, if necessary, the delivery of the video stream to the client, the synchronization information further including at least one of geo-filtering information and	Google further includes receiving a response with synchronization information for modifying the delivery of the video stream to a client, such as an end user, including at least geo-filtering or advertising information. For example, a data repository can provide information that causes YouTube to modify an advertisement that is shown or to discontinue showing a video stream, for example due to location information obtained by YouTube. Personalized advertising Google provides translated versions of our Help Center, though they are not meant to change the content of our policies. The English version is the official language we use to enforce our policies. To view this article in a different language, use the language dropdown at the bottom of the page. Personalized advertising is a powerful tool that improves advertising relevance for users and increases ROI for advertisers. Because it works by employing online user data to target users with more relevant advertising content, it can provide an improved experience for users and advertisers alike. https://support.google.com/adspolicy/answer/143465

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advertisement information.	
7. The computer-implemented method as in claim 1, wherein processing the trigger signal comprises: applying proximity parameters associated with the client to the trigger signal in order to determine whether to modify the delivery of the video stream to the client.	Google processes a trigger signal including applying proximity parameters to determine whether to modify delivery of a video stream. For example, YouTube applying the parameters to determine whether to show an advertisement and/or which advertisement to show, or to block or discontinue content based on a location, for example. Personalized advertising Google provides translated versions of our Help Center, though they are not meant to change the content of our policies. The English version is the official language we use to enforce our policies. To view this article in a different language, use the language dropdown at the bottom of the page. Personalized advertising is a powerful tool that improves advertising relevance for users and increases ROI for advertisers. Because it works by employing online user data to target users with more relevant advertising content, it can provide an improved experience for users and advertisers alike. https://support.google.com/adspolicy/answer/143465

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