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Interactive video content playback

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ABSTRACT

Users sometimes play online content, e.g., video and video advertisements, without paying attention to the content. In such instances, the viewership metrics for the content may be inaccurate. This disclosure describes an online content platform that hosts interactive content, such as video and video advertisements. Video content and advertisements are divided into multiple parts and users are provided with interactive options to select the next part to view. Video content is stored as a graph, with nodes corresponding to content parts, and edges corresponding to valid paths to view the video. Interactivity in this manner can provide increased engagement, better content monetization, opportunities for content innovation. Advertisements served to an engaged and interactive user can be a premium offering to advertisers on the content platform.

KEYWORDS

- Interactive content
- Interactive ads
- Video ads
- Viewer count
- Content delivery

BACKGROUND

Advertisers may not be able to determine whether users are actively viewing online ads. Consider skippable video ads. In some instances, users may not skip these ads even if they are not interested in the advertised content. For example, users may become busy, be distracted with

other activities (e.g., a phone call), not take the time and effort to skip, or may have accidentally played the video.

In such cases, since the video ad is played, the advertiser may be informed that the ad has been viewed, even though the user has not actively viewed it. Moreover, users may feel less engaged when there is no interaction with a video and such lack of interaction lowers the chances of retaining the user attention, which is important for video ads to be effective.

DESCRIPTION

The described techniques render content (e.g., video and/or audio content) that users can seamlessly interact with, leading to better user engagement and experience as well as more opportunities for content monetization. Also, confirmation of user interaction enables online platforms that host such content to provide advertisers with confirmed viewership as a reliable estimate of return on investment (ROI) on the content.

To provide an interactive experience, a content provider, e.g., a video creator or a video ad provider, divides the video into various parts in accordance with a plot. At the end of each part, different content plot options are presented to the user interactively for selection. These options can be presented interactively through a visual or audio user interface. For example, the video can include a segment where an actor from the video speaks to users and asks them to select a content option. Alternatively, content options can be provided on the screen for a user to select via a touch screen or pointing device after viewing the available plot options. Other user interfaces for content selection, e.g., textbox, voice input, text input, toggle, check-box, gesture, swipe, etc. are also possible.

Content creators upload videos or audios onto an online content platform along with different content options and junctures at which various plot options are to be presented to users.

The online platform processes and stores the content as a graph, with nodes representing content parts, and edges representing connections to other parts of the content. The content options at each juncture are represented as child nodes on the graph relative to the content part node that precedes the juncture.
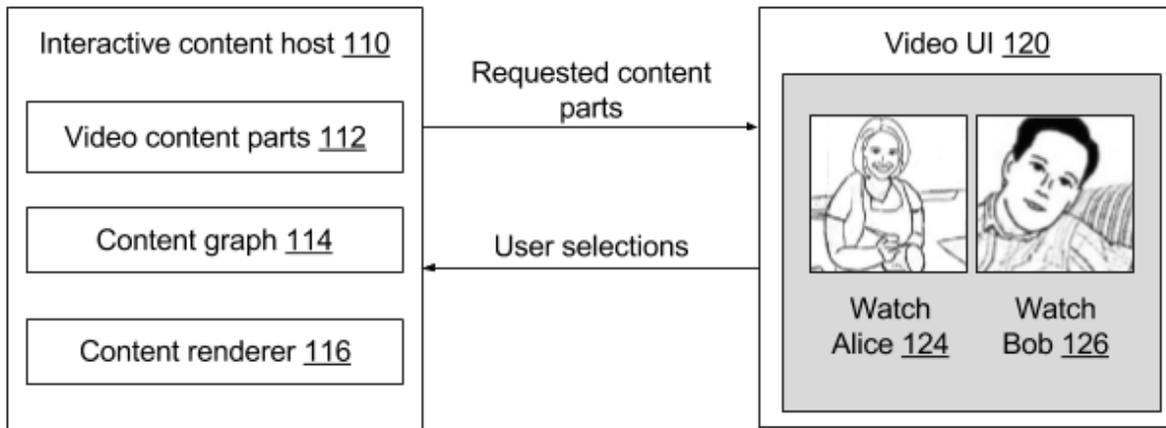
Fig. 1: Interactive video playback

Fig. 1 illustrates interactive video playback, according to techniques of this disclosure. An interactive content host (110) receives video content from a video creator, e.g., a production studio, an individual video creator, an advertiser, etc. The received video content includes video content parts (112) and plot junctures. The content host stores the video content parts and a content graph (114) that utilizes the plot junctures that describe connectivity between the content parts. The content host includes a content renderer (116) that provides requested content parts to users.

As illustrated in Fig. 1, a video UI (120) is provided to users. In the example illustrated in Fig. 1, the user has played a part of the content and the video player has reached a particular juncture. At this juncture, the user is provided with options, e.g., "Watch Alice" (124) and "Watch Bob" (126) respectively, to continue watching the video with the character Alice or with

the character Bob. The user selections are communicated to the content host, and the content renderer provides the requested video parts to the user. The content is dynamically rendered and streamed. The upcoming content options in the video are buffered in advance. This enables the user to choose from any option from the different options available at each juncture, and provides a seamless transition. This interactive approach can lead to better user engagement, longer content viewing time and a larger viewer base.

Online platforms can also leverage advertiser targeting parameters (e.g., user profile and preferences) to match relevant interactive content with corresponding users when the users provide content for such use of user data. With user permission, such parameters can include one or more of location, time, device type, etc. The parameters can be analyzed to match and select from available content and advertisements. The targeting and matching can be performed using various technologies, including machine learning, and can incorporate user feedback. These techniques can also be used for 360-degree video content.

The techniques described herein enable determination of whether a user is actively involved with a video or advertisement, and provides a true watch count for the video or advertisement. Increase in user engagement with provision of interactive content can increase watch time and user base. Advertisements served to an engaged and interactive user can be a premium offering to advertisers on the content platform.

Further to the descriptions above, a user may be provided with controls allowing the user to make an election as to both if and when systems, programs or features described herein may enable collection of user information (e.g., information about a user's social network, social actions or activities, profession, a user's preferences, or a user's current location), and if the user is sent content or communications from a server. In addition, certain data may be treated in one

or more ways before it is stored or used, so that personally identifiable information is removed. For example, a user's identity may be treated so that no personally identifiable information can be determined for the user, or a user's geographic location may be generalized where location information is obtained (such as to a city, ZIP code, or state level), so that a particular location of a user cannot be determined. Thus, the user may have control over what information is collected about the user, how that information is used, and what information is provided to the user.

CONCLUSION

This disclosure describes an online content platform that hosts interactive content, such as video and video advertisements. Video content and advertisements are divided into multiple parts and users are provided with interactive options to select the next part to view. Video content is stored as a graph, with nodes corresponding to content parts, and edges corresponding to valid paths to view the video. Interactivity in this manner can provide increased engagement, better content monetization, opportunities for content innovation. Advertisements served to an engaged and interactive user can be a premium offering to advertisers on the content platform.