Real-time interaction with television content

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ABSTRACT

Techniques described enable users to - based on another person's advice or order, or because they have received information or had an idea - to act in real-time on media content, e.g., television content, that they watch. The techniques can lead to a more connected, engaged, and informed television audience. For example, while viewing a news channel on a smart television, a call to action option is incorporated such that on a user command (e.g., a voice command such as saying “action!”), a user is presented with various options such as contact the host or channel through social media and email. In another example, users can browse related news topics and stories or access additional information about the host and channel.

KEYWORDS

- Smart television
- News channel
- Lawmakers
- Media content
- Call to action
- Virtual assistant

BACKGROUND

Cable television networks and other media outlets stream media content around the clock. The volume of information is significant and it is sometimes difficult for users to recall.

Television does not provide users with the ability to act on content of interest in real-time. For example, a user may be interested in interacting with a media presenter, e.g., news or talk show anchor, channels, or producers, e.g., via social media, e-mail, etc.
DESCRIPTION

Techniques described allow users to act on television shows in real-time by using a command (e.g., a voice command “action!”). For example, upon invoking the command, the user is presented with options for interacting with the producer or anchor of the show or contacting the channel or station. Such call to action options are updated in real-time based on the content so that users can follow-up on the content immediately. Users can also browse information regarding shows, show hosts and channels, as well as related media content and topics.

Benefits of present techniques include a connected, engaged, informed, and involved audience that can lead to potentially more views of the corresponding media content. Also, instead of watching television passively, this technology makes viewing content more exciting, fun, and educational. The audience can, for example, engage with the anchor of the show or a producer of the show via social media, contribute to discussions about the content, and take other actions on items of interest.

Moreover, these techniques allow an audience to contact their lawmakers via similar actions taken above. The potential benefits of this is that the audience, if they would like to immediately voice an opinion about an on-going news event, have the capability to inform their respective lawmaker(s) of their personal opinions on the subjects being shown on television. For example, if the newscast is about a story about immigration in the audience member’s geographic location, e.g., state, municipality, city, village, etc., the audience member can utilize the technology to command a real-time action be taken on the news presented. For example, requests can be made of the lawmakers to follow a particular course of action (e.g., start, stop, continue, etc.) based on what the user has just seen on television, resulting in the viewer feeling more connected to their country and to their civic responsibilities and to lawmakers.
Also, based on user permission to measure such activity, advertisers can measure the size of audience that interacts with the content in real-time and monetize such content by targeting the audience with advertisements of particular interest. For example, the user is enabled to send or post a social media communication using the call to action while viewing media content.

![Smart Television 102](image)

**Fig. 1: Smart television with calls to action**

Fig. 1 illustrates a smart television (102) that is currently showing “PBC News with Alice.” Command options are presented for the viewing user to interact with the news anchor Alice via email or social media, e.g., by speaking the command “action!” For example, the command options include options to contact the presenter Alice via social media and email, options to contact the television channel PBC, and options to show information and related news for the content that is currently being presented. The action can include enabling the user to contact the news station, to browse show information and related news, etc. while watching the news show. For example, a virtual assistant that enables the options to be presented on command is integrated with the smart television. The user is therefore able to act on the news.
instantaneously, is more involved, and has a more interactive viewing experience. The techniques can be implemented as part of a smart television or media playback device.

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

Techniques described enable users to act in real-time on media content, e.g., television content, that they watch. The techniques can lead to a more connected, engaged, and informed television audience. For example, while viewing a news channel on a smart television, a call to action option is incorporated such that on a user command (e.g., a voice command such as saying “action!”), a user is presented with various options such as contact the host or channel, or their lawmakers through social media and email. In another example, users can browse related news topics and stories or access additional information about the host and channel.