January 2022

Providing Real Time Feedback to a Presenter Delivering an Online Presentation

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ABSTRACT

During such presentations, a presenter does not have the same kind of visibility of audience members and their physical reactions as during an in-person presentation. Audience reactions are useful feedback to the presenter regarding the quality of the presentation and help the presenter adjust their delivery to keep the audience engaged.

This disclosure describes techniques to provide real time feedback and coaching to presenters delivering online presentations via a video conferencing product. The purpose of the feedback is to help presenters become aware of various aspects of presentation delivery connected to audience engagement, thus enabling them to make appropriate adjustments while delivering the presentation. The feedback is derived via automated analysis of the audio and/or video stream, performed with appropriate user permissions. Feedback generated from the analysis is provided via the video conferencing user interface (UI) in suitable visual or text formats. Such real time feedback can enable presenters to make appropriate adjustments that enhance their online presentation delivery.

KEYWORDS

- Online presentation
- Presentation feedback
- Presentation coaching
- Video conferencing
- Audience engagement
- Audience reaction
- Eye contact
- Filler word
- Vocal variance
- Speech cadence
- Body language

BACKGROUND

An important use case for video conferencing applications is to deliver real time presentations to an online audience. During such presentations, a presenter does not have the same kind of visibility of audience members and their physical reactions, such as gaze, gestures, etc., as during an in-person presentation. Audience reactions are useful feedback to the presenter regarding the quality of the presentation and help the presenter adjust their delivery to keep the audience engaged. For instance, a presenter can enhance the quality of the presentation by appropriately adjusting various aspects of the delivery, such as speech cadence, vocal variety, gaze, use of filler words, e.g., "ummm," "ahh," etc. Some software products employ artificial intelligence (AI) techniques to enhance presentation delivery for purposes such as converting the spoken speech to text, determining the target of the presenter's gaze, etc. However, such products do not provide real time feedback and/or coaching to presenters.

DESCRIPTION

This disclosure describes techniques to provide real time feedback and coaching to presenters delivering online presentations via a video conferencing product. The purpose of the feedback is to help presenters become aware of various aspects of presentation delivery connected to audience engagement, thus enabling them to make appropriate adjustments while delivering the presentation.

With appropriate permission from the presenter and the presentation audience in the video conference, automated analysis of the audio stream of the presentation is performed to generate feedback. Such audio analysis can generate feedback about one or more aspects of the speech such as cadence, variance in vocal parameters (e.g., tone, volume, etc.), number or frequency of utterances of filler words, use of inappropriate terms, etc. Presenters are provided

the option to customize the analysis to specific needs and domains by specifying the extraction

of additional aspects, such as user-specified terms. With appropriate user permissions, the video

stream of the presentation can additionally be analyzed to generate further relevant information

such as extent of eye contact with the camera, position of the face and body within the camera

frame, facial expressions, gestures, body language, etc.

Results of the analysis of the audio and/or video of the presentation are made available to

the application used for presentation delivery. The information can then be shown within the user

interface (UI) of the application in any suitable visual format, such as tables, gauges, emojis, star

ratings, etc. The presenter can view the displayed feedback to determine whether to make

adjustments such as changing the pace of delivery, increasing the variations in tone, etc.
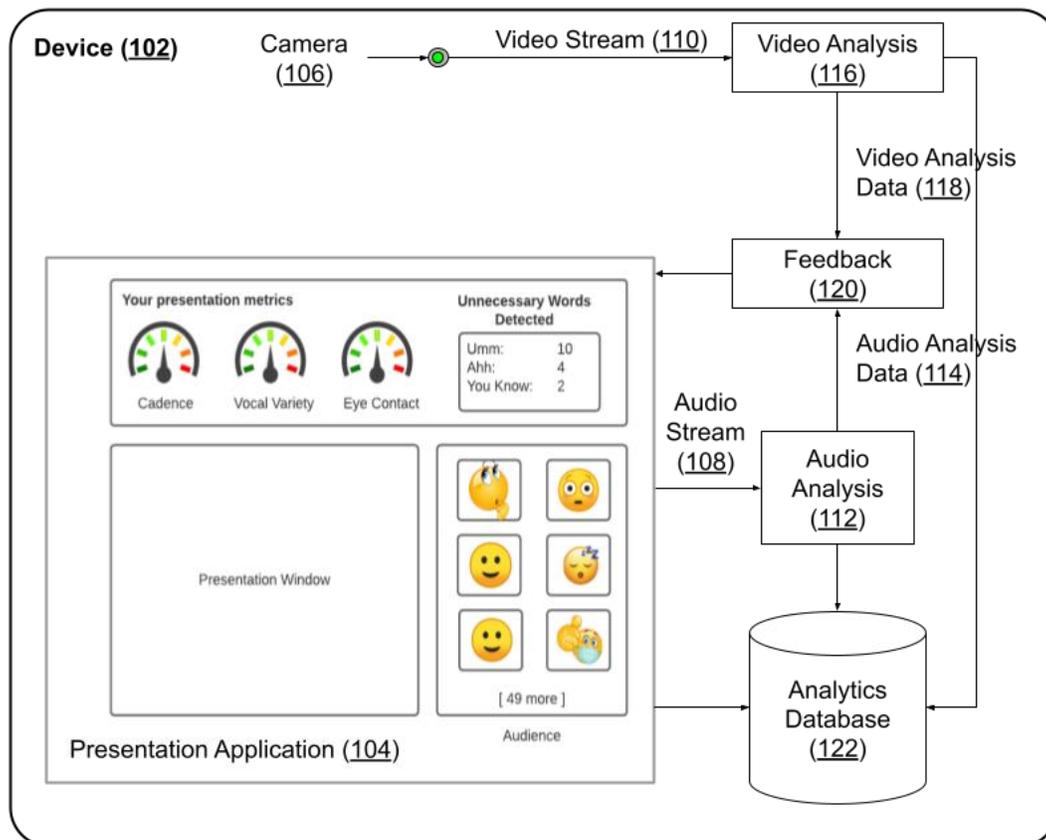
Fig. 1: Displaying real-time feedback on online presentation delivery

Fig. 1 shows an example of operational implementation of the techniques described in this disclosure. A presenter is delivering an online presentation using a presentation application (104) via a device (102) equipped with a camera (106) used to capture video of the presenter. With permission, the audio (108) and video (110) streams of the video conference are extracted for audio (112) and video (116) analysis, respectively. The results of the corresponding audio (114) and video (118) analysis are used to derive feedback (120) in real time. The feedback is displayed within the UI of the presentation application. With appropriate permissions, the audio and video analysis as well as analytics of user interaction with the displayed feedback can be stored in an analytics database (122).

Analysis of the audio and/or video streams can be performed on the user device as shown in Fig. 1, or with specific user permission, on an external device such as a video conferencing server or other server with access to the video conference. Results of the analysis can be made available to the presenter via the video conferencing application using any suitable format, such as a streaming protocol, application programming interface (API), etc. Further, with user permission, the results can be delivered to other applications or platforms besides the one used for presentation delivery. The feedback can be shown in graphical form (as shown in Fig. 1) or in alternative forms, such as text.

With appropriate permissions, the techniques described herein can be implemented to support delivery of online presentations within any video conferencing application, platform, or service. The techniques support online presentations designed for various purposes such as meetings, distance education, marketing, sales, etc. Implementation of the techniques can enhance the user experience (UX) of online presentation by enabling presenters to make appropriate real time adjustments that enhance their online presentation delivery.

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 online presentations, audio/video delivered during a video conference, profession, or a user's preferences, 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. 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 techniques to provide real time feedback and coaching to presenters delivering online presentations via a video conferencing product. The purpose of the feedback is to help presenters become aware of various aspects of presentation delivery connected to audience engagement, thus enabling them to make appropriate adjustments while delivering the presentation. The feedback is derived via automated analysis of the audio and/or video stream, performed with appropriate user permissions. Feedback generated from the analysis is provided via the video conferencing user interface (UI) in suitable visual or text formats. Such real time feedback can enable presenters to make appropriate adjustments that enhance their online presentation delivery.