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Automatic Detection and Rectification of Audio Quality Problems in Media Content

ABSTRACT

This disclosure describes techniques for automatic detection and rectification of audio quality problems in media content. Per techniques of this disclosure, audio quality problems are detected automatically at a time of creation or upload of media content. The audio track of the media content item is analyzed for its sound properties, e.g., volume, frequency, etc. to identify audio quality problems. A user interface with an option to rectify the detected audio quality problems is provided to the user. Based on received user selection, one or more filters that rectify the audio quality problems are applied to audio of the media content item.

KEYWORDS

- Audio quality
- User generated content
- Hiss
- Wind noise
- Media content
- Audio filters

BACKGROUND

Media content such as videos, podcasts, etc. is increasingly created using personal computing devices, e.g., mobile phones. The quality of such content, e.g., audio quality, video quality, etc., can have high variability when compared to professionally created media content. For example, audio quality in a video clip that is shot by a user on their mobile phone can be affected by sounds such as wind noise, hisses, etc. that are picked up by the device microphone.

DESCRIPTION

This disclosure describes techniques for automatic detection and rectification of audio quality issues in media content. Per the techniques, audio quality problems are detected automatically in media content items at a time of creation or upload of the media content. A user interface that includes an option to rectify the detected audio quality problems is provided to users. The UI allows users to rectify audio quality problems without having to manually analyze the content to detect the audio quality issues and without the need for professional editing software and/or professional grade equipment.

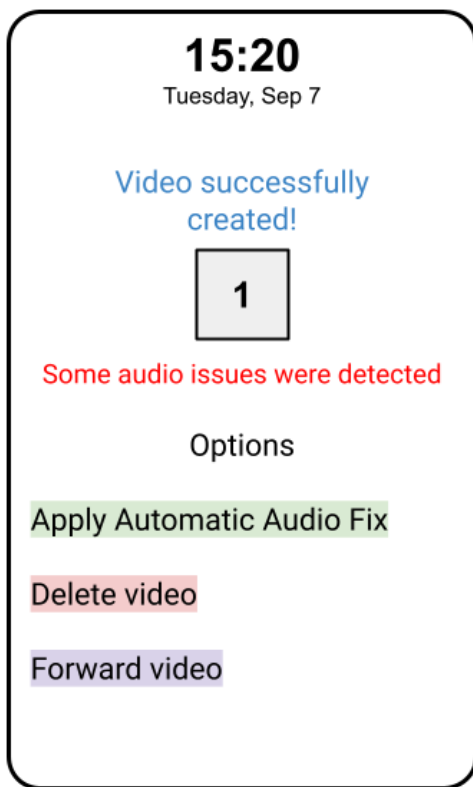


Fig. 1: A user-interface enables one-click audio quality rectification

Fig. 1 depicts an example user interface utilized that enables a user to rectify audio quality issues in media content, per techniques of this disclosure. In this illustrative example, a

user has just created a media content item, e.g., a video clip. Based on analysis of audio tracks in the video clip, one or more problems with the audio quality of the media content item is automatically detected. As seen in Fig. 1, a notification is provided to the user that audio quality of the media content item can be improved. The user interface includes an option that can be activated via a single click or tap operation to rectify the identified audio quality issues. Based on user selection, the identified audio quality issues are automatically rectified.

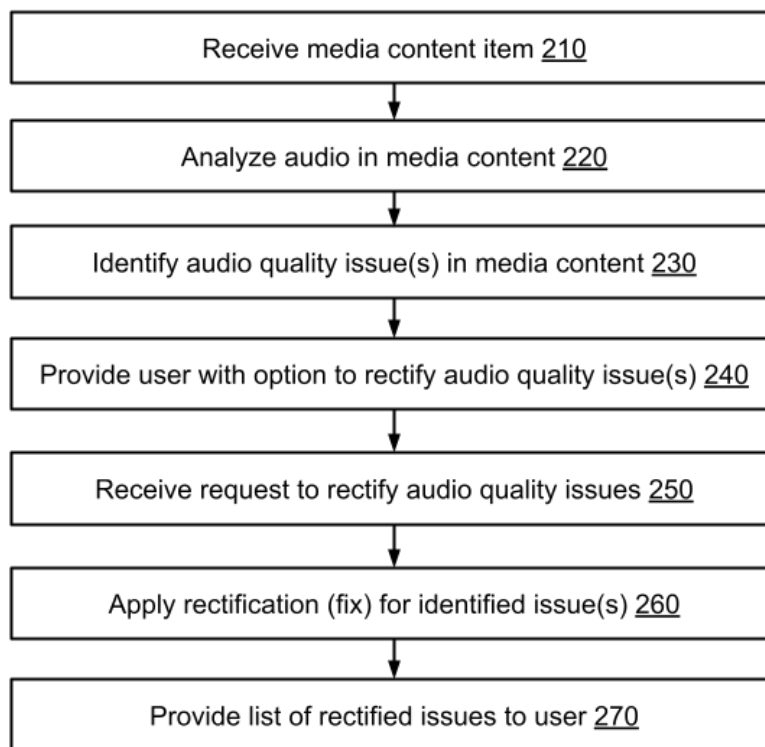


Fig. 2: Workflow for auto-detection and rectification of audio quality problems

Fig. 2 depicts an example workflow for automatic detection and rectification of audio quality problems in a media content item, per techniques of this disclosure. A media content item is received (210) at a computing device. The audio track of the media content is analyzed (220). A determination may be made as to the type of audio in the media content, e.g., whether the track includes voice, music, ambient sounds, etc. Based on the type of the audio, the track is analyzed

for its sound properties, e.g., volume, frequency, etc. Audio quality problems such as high and low tones that meet a predetermined threshold, noise, hisses, pops, background noise, low frequencies, unstable volume of voice, etc. are identified (230).

The user is provided (240) with an option to rectify the identified audio quality issues. The option can enable a one-click or one-touch selection by the user. A request is received (250) from the user to rectify audio quality problems. The audio track is rectified (260). For example, one or more filters are applied to rectify (fix) the identified audio quality problems. A list of audio quality problems that were addressed is provided (270) to the user.

Techniques of this disclosure can enable users to seamlessly create high quality media content on the go using their personal computing devices, e.g., mobile phones. Higher quality content can help generate a larger audience for the content and enable higher viewer retention.

CONCLUSION

This disclosure describes techniques for automatic detection and rectification of audio quality problems in media content. Per techniques of this disclosure, audio quality problems are detected automatically at a time of creation or upload of media content. The audio track of the media content item is analyzed for its sound properties, e.g., volume, frequency, etc. to identify audio quality problems. A user interface with an option to rectify the detected audio quality problems is provided to the user. Based on received user selection, one or more filters that rectify the audio quality problems are applied to audio of the media content item.