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(54) Title: REAL-TIME ONLINE AND OFFLINE CHORUS METHOD, DEVICE, AND MEDIUM

(54) 发明名称: 一种线下线上实时合唱方法、设备及介质

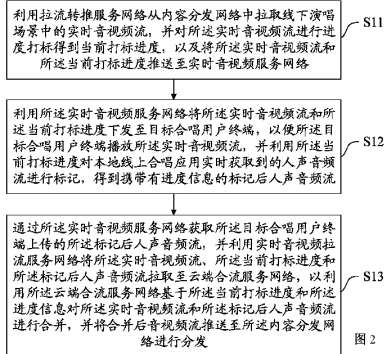


图 2

- S11 Use a stream pull-to-push service network to pull a real-time audio and video stream in an offline singing scenario from a content distribution network, perform progress annotation on the real-time audio and video stream to obtain a current annotation progress, and push the real-time audio and video stream and the current annotation progress to a real-time audio and video service network
- S12 Use the real-time audio and video service network to issue the real-time audio and video stream and the current annotation progress to a target chorus user terminal, such that the target chorus user terminal plays the real-time audio and video stream and uses the current annotation progress to annotate a human voice audio stream which is acquired by a local online chorus application in real time, so as to obtain an annotated human voice audio stream carrying progress information
- S13 Use the real-time audio and video service network to acquire the annotated human voice audio stream uploaded by the target chorus user terminal, and use a real-time audio and video stream pulling service network to pull the real-time audio and video stream, the current annotation progress and the annotated human voice audio stream to a cloud confluence service network, such that the cloud confluence service network is used to combine the real-time audio and video stream and the annotated human voice audio stream on the basis of the current annotation progress and the progress information, and push the combined audio and video stream to the content distribution network for distribution

(57) Abstract: A real-time online and offline chorus method, a device, and a medium, relating to the technical field of communications. The method is applied to a cloud server, and comprises: a stream pull-to-push service network pulls an offline real-time audio and video stream and generates a current annotation progress, and a real-time audio and video service network issues the real-time audio and video stream pushed by the stream pull-to-push service network and the current annotation progress to a target chorus user terminal, such that the target chorus user terminal plays the real-time audio and video stream and uses the current annotation progress to annotate a local human voice audio stream so as to obtain an annotated human voice audio stream; and the real-time audio and video service network acquires the annotated human voice audio stream, and uses a real-time audio and video stream pulling service network to pull the real-time audio and video stream, the current annotation progress and the annotated human voice audio stream to a cloud confluence service network, such that the cloud confluence service network combines the real-time audio and video stream and the annotated human voice audio stream, and pushes the combined audio and video stream to a content distribution network for distribution. Real-time online and offline chorus can be achieved.

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— 包括国际检索报告(条约第21条(3))。

(57) 摘要: 一种线下线上实时合唱方法、设备及介质，涉及通信技术领域，应用于云服务器，包括: 拉流转推服务网络拉取线下的实时音视频流并生成当前打标进度，实时音视频服务网络将拉流转推服务网络推送的实时音视频流和当前打标进度下发至目标合唱用户终端，以便目标合唱用户终端播放实时音视频流并利用当前打标进度对本地的人声音频流进行标记得到标记后人声音频流; 实时音视频服务网络获取标记后人声音频流，利用实时音视频拉流服务网络将实时音视频流、当前打标进度和标记后人声音频流拉取至云端合流服务网络，云端合流服务网络合并实时音视频流和标记后人声音频流，将合并后音视频流推送至内容分发网络进行分发。能够实现线上线下实时合唱。