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Meeting room personalization

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ABSTRACT

Hardware for teleconferencing and videoconferencing is installed in meeting rooms. Typically, such hardware has several settings, e.g., microphone sensitivity, speaker volume, display contrast, etc. Such settings are manually entered or changed upon entry of participants in a meeting. Settings change frequently based on the preferences of different users of the meeting rooms. Each change requires participants to perform manual actions during a meeting. It is also possible that multiple meeting participants in a room disagree on settings.

Techniques of this disclosure enable automatically setting meeting room equipment parameters based on user preferences. Personal meeting room settings are stored locally on a mobile device of meeting participants. These settings are automatically applied to meeting room equipment when a user is present in the meeting room. Further, the techniques can automatically resolve conflicting settings across multiple participants. Settings for meeting room equipment are seamlessly personalized for meeting participants.

KEYWORDS

- Video conference
- Meeting room
- Proximity detection
- Accessibility
- Personalization

BACKGROUND

Video conferencing technologies provide a convenient way for geographically separated teams or individuals to meet. For a productive meeting over video conference, several audio-

visual settings need to be set optimally. Examples of such settings include microphone sensitivity, speaker volume, display contrast, use of screen-reader, pairing with personal listening device, locations of relevant folders, projector parameters, etc.

Typically, video conference or meeting room settings are manually configured. Given the importance of equipment settings for a productive meeting, users often test components of video-conferencing equipment in advance of a meeting. Presenters who do not test or set up their video-conferencing systems until start of meeting often find that due to lack of appropriate setting of equipment parameters, the video conferencing system does not deliver an optimal experience, e.g., low or inconsistent volume, inaudible speech, incorrect camera position, etc. Users often budget time to tune settings ahead of the meeting to ensure a good video conferencing experience.

Further, users often have personalized settings for their own convenience. For example, a blind user may have a setting to enable the screen reader by default. Another user might want increased contrast, or a voice interaction feature turned on. Presently, users with certain preferred settings need to manually change the meeting room settings each time they join a meeting from a meeting room. This can involve finding an in-room controller and navigating menus to select the desired options which is a burden on the users. There is also the possibility that two or more users have settings preferences that conflict. Currently there is no automatic mechanism to resolve conflicting user requirements.

DESCRIPTION

Techniques of this disclosure provide automatically set meeting room and equipment parameters based on user preferences and obviate the need for manual tweaking of settings. A mobile application enables users to store video-conferencing or meeting room preferences. When

a user permits, the user's entry or continued presence in a meeting room is detected, e.g., by proximity sensors. After detecting that the user is present, preferences from the mobile application are applied to equipment in the meeting room.

Conflicts between users over settings are resolved by rules that establish priority. For example, a blind user's request for a screen-reader can coexist with another user's request for pairing a personal listening device. However, a blind user's preference for a screen-reader is considered of a higher priority than a non-blind user's preference for no screen reader. When a user leaves the room, the settings can revert to a default state.

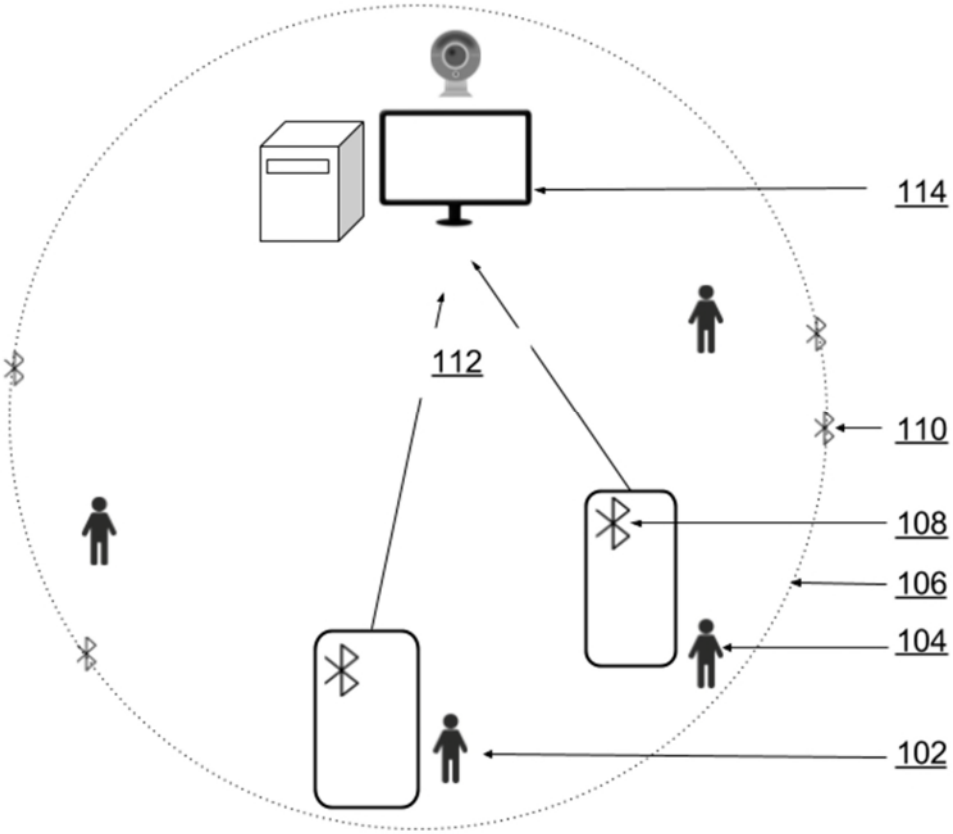

Fig. 1: Automatic personalization of meeting-room parameters

Fig. 1 illustrates the automatic setting of meeting-room parameters. Users 102 and 104 are in a meeting room (106). Based on user consent, their presence is detected by proximity detecting technology, e.g., Bluetooth low energy (BLE) sensors, ultrasound sensors, etc. using

hardware within the users' smartphones (108) and/or hardware in the meeting room (110). Once a user's presence is detected, preferred settings for the user are obtained, e.g., retrieved from the user's smartphone (112). The preferred settings are then applied to the meeting room, e.g., the settings of the video-conferencing equipment are adjusted based on the user preferences (114).

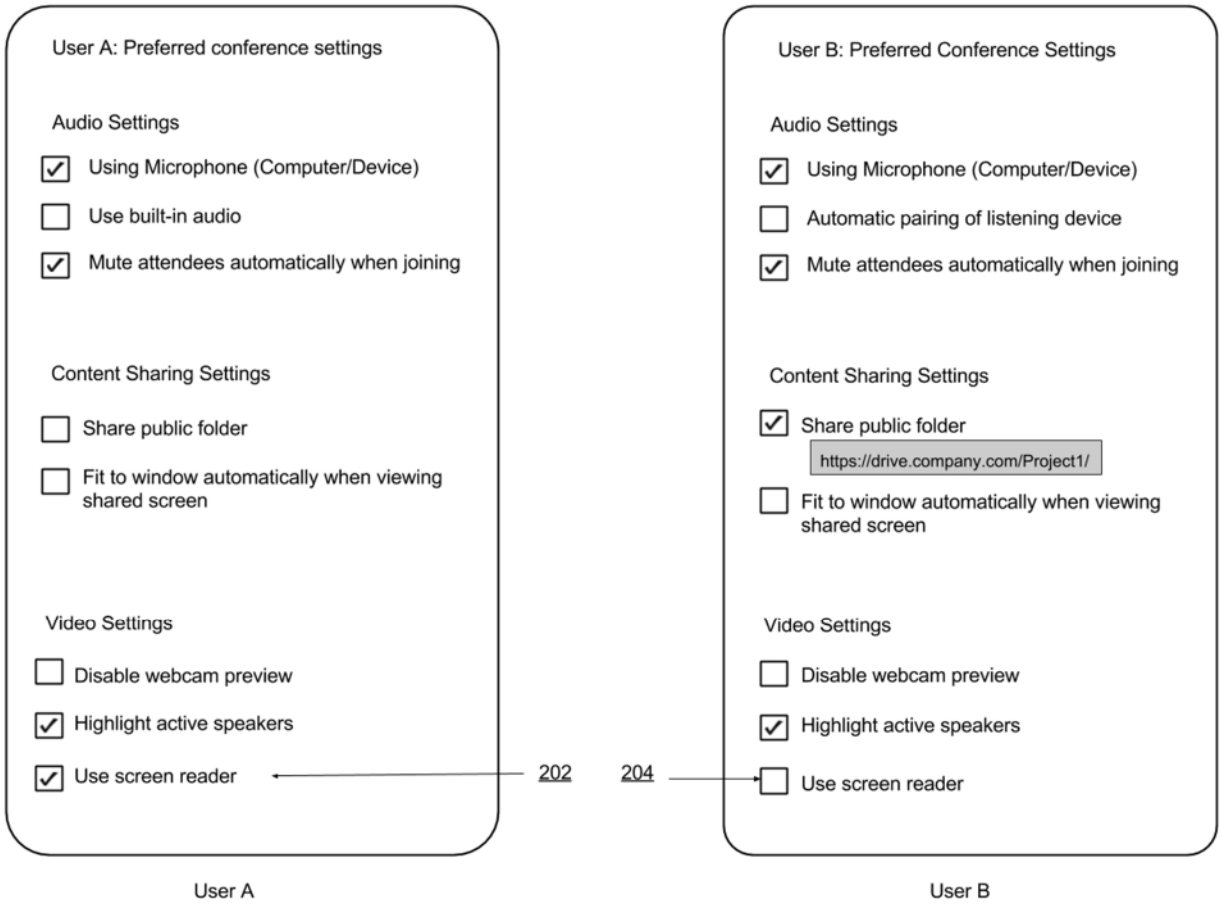

Fig. 2: Example mobile application used to set meeting room parameters

Fig. 2 is an illustrative view of a mobile phone application that can be used to set meeting room parameters. User A has indicated that she wishes to use the in-built microphone, mute attendees automatically upon joining, highlight active speakers, and use a screen reader. The preferences are automatically uploaded and applied to the meeting room equipment when user A is present or enters a meeting room. Similarly, User B has indicated that he wishes to use the

built-in microphone, mute attendees upon joining, share his public folder from the indicated URL, and highlight active speakers. The preferences are similarly applied to the meeting room equipment when user B is present.

Per techniques of this disclosure, conflicts between user preferences are resolved by rules that establish priority. For example, in Fig. 2, user A wishes to use a screen reader (202) while user B does not (204). In this case, the screen reader for the meeting room is switched on based on the preference of user A, e.g., based on the preference being associated with an accessibility need. When user A leaves the meeting room, the screen reader is automatically disabled. When all users leave the meeting room, the meeting room reverts to default settings.

The mobile application can present different user interfaces (UI) to different users. For example, a service executive entering a meeting room could utilize a UI different from the UI presented to a meeting participant. For example, the UI presented to the service executive can offer options to order food for a meeting, whereas such an option would not be available to other types of users.

Techniques of this disclosure enable a user to carry meeting-room settings to different meeting rooms. The techniques also resolve settings conflicts amongst users and present a user interface tailored to the roles of the meeting participants.

The techniques disclosed herein are implemented specifically upon a user's preference. Users are provided with options to restrict access to their preferred meeting room settings. For users that choose to restrict access to settings, only those settings that the user permits access to are utilized. Users may change or remove preference settings at any time, and can designate meeting rooms or other users that can access their settings.

In situations in which certain implementations discussed herein may collect or use personal information about users (e.g., user data, information about a user's social network, user's location and time at the location, user's biometric information, user's activities and demographic information), users are provided with one or more opportunities to control whether information is collected, whether the personal information is stored, whether the personal information is used, and how the information is collected about the user, stored and used. That is, the systems and methods discussed herein collect, store and/or use user personal information specifically upon receiving explicit authorization from the relevant users to do so. For example, a user is provided with control over whether programs or features collect user information about that particular user or other users relevant to the program or feature. Each user for which personal information is to be collected is presented with one or more options to allow control over the information collection relevant to that user, to provide permission or authorization as to whether the information is collected and as to which portions of the information are to be collected. For example, users can be provided with one or more such control options over a communication network. 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. As one example, a user's identity may be treated so that no personally identifiable information can be determined. As another example, a user's geographic location may be generalized to a larger region so that the user's particular location cannot be determined.

CONCLUSION

Meeting room settings, e.g., settings for video conference equipment, typically need to be manually configured by users present in the meeting room. Preferred settings for a meeting room vary across users and are prone to change. This disclosure describes techniques that can

automatically adjust meeting room settings based on available preferences of users that are present in the room. A mobile application that enables a user to specify their preferred settings is provided. The techniques automatically resolve conflicts in settings from multiple users. Meeting room equipment can revert to a default state when users exit and switch to a user-preferred state when a user is present. The techniques also improve accessibility, e.g., for blind or mute users, who may require atypical audio-visual settings that are cumbersome to set manually.