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TELEVISION SETTINGS MANAGEMENT

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ABSTRACT

A television settings management system can automatically manage television settings using one or more electronic devices associated with a user. The system receives a request to configure settings for a television. The system also receives a request to associate the configured settings with a particular user device. Based on the received request, the system associates the television settings with the user device. Further, whenever the system detects presence of the user device in a vicinity of the television, the system applies, to the television, the television settings associated with the user device.

PROBLEM STATEMENT

A television (TV) enables TV viewers to watch various programs by processing broadcast signals containing the programs. Because of differences in users, technological knowledge, and changing tastes for consuming content, there are opportunities to more effectively set different channels or TV environments, e.g., standard volume states, image states, or sound effects for individual users. In addition, conventional TV systems have employed a method where a user environment is accessed through an On Screen Display (OSD) technique while the TV is turned on. Every user who wants to watch the TV turns on the TV and sets a preferred environment or selects a prestored user environment. However, this conventional user environment setting could be more intuitive and optimum. Firstly, it is inconvenient for every user who wants to watch the TV to manually set a customized environment as it takes time and

knowledge of how to set it. Secondly, it is necessary to have a separate menu for security reasons because not all users can be allowed to change and configure TV settings.

DETAILED DESCRIPTION

The systems and techniques described in this disclosure relate to a television settings management system. The system can be implemented for use in an Internet, an intranet, or another networked environment. The system can be implemented locally on a client device or implemented across a client device and server environment. The client device can be any electronic device capable of handling videos such as television, computer, set-top box, etc. Televisions can be of any technology type such as LED TV, CRT TV, LCD TV, Plasma TV, etc.

Fig. 1 illustrates an example method 100 for associating television settings with user devices. The method can be performed by a system that manages television settings, for example, the television settings management system. The television settings management system can be pre-stored in a memory of a TV by a manufacturer of the TV or can be uploaded to the TV using over-the-air (OTA) transfer. Alternatively, or additionally, the television settings management system can be pre-stored in a memory of a set-top box, connected to a TV, by a manufacturer of the set-top box or can be uploaded to the set-top box using OTA transfer.

The television settings management system receives (102) a request to configure settings for a television. The system can receive a request to configure settings for television from a user directly or indirectly. The user can initiate configuring settings for the television via television's on-board controls or a remote control associated with the television. The user can also initiate configuring settings for the television via a mobile device or an application on the mobile device that can control television settings and operating modes. The system can receive the request to

configure settings such as volume control, audio equalizer settings, settings associated with particular channels, locking of channels, closed caption preferences, color, brightness, contrast, default channel when television is switched on, etc.

Further, the system receives (104) a request to associate the settings with a user device. The user can request to associate the configured settings with their device. Alternatively, or additionally, the user can request to associate the configured settings with multiple devices such as smartphone, smartwatch, tablet, and laptop. Alternatively, or additionally, the user can request to associate the configured settings with one or more of their online account IDs or email IDs logged-in on their device(s). User's online account IDs can correspond to one or more of user's email, social profile, or the like.

Based on the received request, the system associates (106) the settings with the user device or user ID. The system can associate settings pertaining to multiple users with their respective user devices. The system can associate the configured settings with one or more of device ID, bluetooth ID, NFC ID, wireless ID, email ID, etc. pertaining to the user's device(s). The system can create and store a mapping table including configured settings mapped with the associated user devices and/or associated device IDs. The user can change or or remove settings as desired. The changing or removing settings can require some authentication such as a password from the user.

Fig. 2 illustrates an example method 200 for managing television settings. The method can be performed by the television settings management system. The system detects (202) presence of a user device in a vicinity of a television. The system can detect the presence of the user device by detecting one or more of device's device ID, bluetooth ID, Wi-fi ID, NFC ID,

wireless ID, email ID, sonic token, etc. When the user device is in the vicinity of the television, the television can communicate with the user device using known wireless technologies and request the associated ID. After the user device communicates its device ID to the television, the television checks if it has pre-configured settings associated with the detected user device's ID in its memory. These are the settings that were pre-configured by the user (Fig. 1). In an example, the television can detect that a user device is connected to the same Wi-fi network as the television and determines that the user device in the vicinity of the television based on the detection. On determining that the setting associated with the user device is present in the television's memory, the system applies (204) the television setting associated with the user device.

Fig. 3 illustrates a pictorial representation of method 200 for managing television settings by the system. Fig. 3 shows an exemplary room 300 with a television 302 placed in the room. The television has pre-configured settings for user device 304. The television 302 detects that user device 304 is in the vicinity. The television detects the user device's presence in the room using a communication link 306. The communication link 306 can be a Bluetooth link, an RF link, a WiFi link, an Optical link, or any other wireless link. On detection of the user device, the television obtains a device ID and identifies stored (pre-configured) settings associated with the user device and applies those settings to the television. Alternatively or additionally, the television displays a message "User device A detected, Applying settings for user device A" while applying the settings associated with the user. Alternatively, the television displays a message "User device A detected, would you like to apply settings for user device A? [YES] [NO]" The message provides a visible cue to the user that settings have been changed as per his

preference. Moreover, when the television detects multiple devices with pre-configured settings in its vicinity, the television can provide a prompt on the television screen for a user to select one of the multiple devices whose settings the user would want to be applied to the television.

DRAWINGS

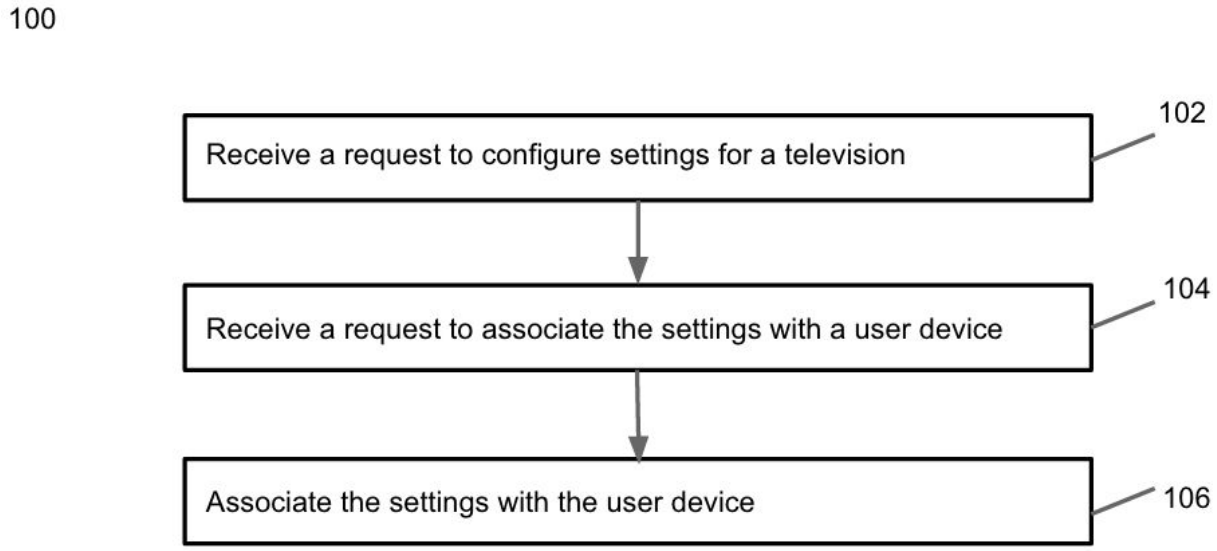

Fig. 1

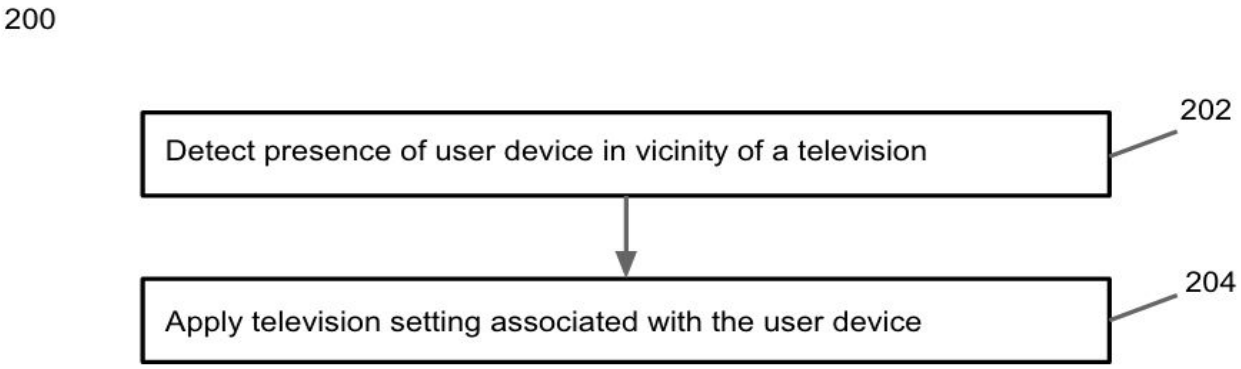

Fig. 2

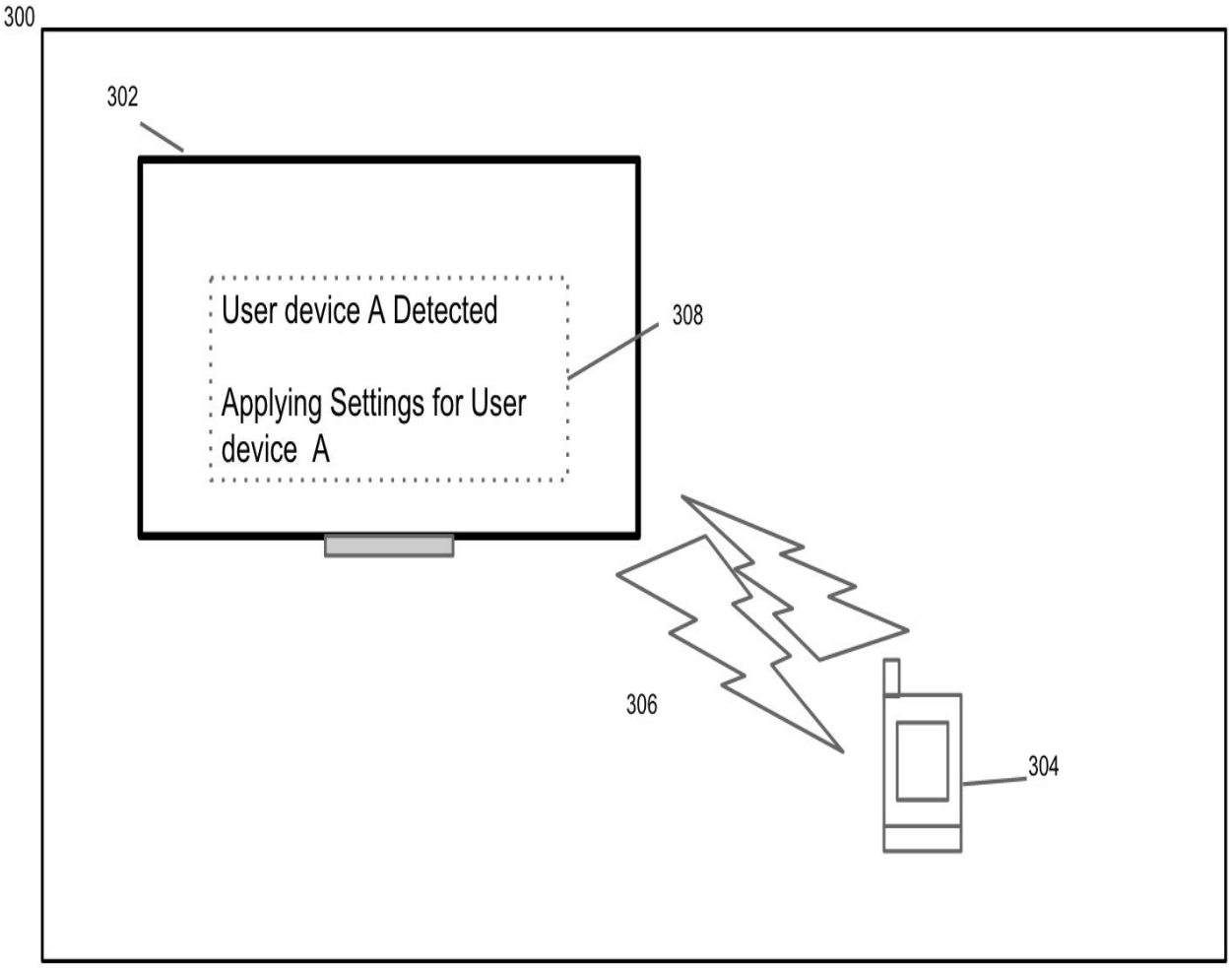
300
302
User device A Detected
Applying Settings for User device A
308
306
304

Fig. 3