

Voice Commands to Control TV and STB

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Introduction

Using remote control to surf channels in TV and STB is a common practice. This gesture does not provide a pleasant experience to all kind of TV users. A new trend has begun, which enables users to interact with electronic devices with voice commands. Just tell your STB which channel to watch and the STB tunes to that channel right away. It will be much easier than any other interaction mechanisms for humans as this is the natural way humans interact with rest of the things in the world.

Details

Voice command interpretation is error-prone and this practice to control electronic devices is not yet accepted by the mass. However, researches are going on to improve on this interaction method. TV and STB hardware and software vendors can utilize this to deliver sophisticated user interaction tools for TV.

Receiving and Interpretation Unit

The voice receiving and interpretation unit can be put into STB as today STB controls every aspects of viewing television. Alternatively, receiving unit can be put into remote

control and interpretation unit can be put into STB. In both the approaches the interpretation unit can act as front end module and can be integrated into existing system as plug-in.

Intelligence

The interpretation unit might require users to talk in a particular accent. This is very less user friendly because not all the people can talk in a particular accent due to physical limitations and practices. However, the unit can learn gradually from mistakes and make improvement everyday on understanding user's accent. So, it has to be an intelligent unit. Alternatively, interpretation unit can work with stored voice to map to commands. This is a common practice in mobile device for speed dial.

Accessibility

While watching a movie in dim light if user gets a call in mobile phone, reducing volume or making TV mute with remote becomes difficult and takes time. Also, people with low vision, partially disabled, paralyzed, having difficulties handling remote control would get tremendous benefit from voice command control facility.

Cost Factor

Supporting this feature in STB will cause increase of cost in hardware and software manufacturing and essentially the cost of STB unit will increase. Therefore, the way of optionally including voice command recognition unit with STB should be available.

Case Studies

Case Study 1: Voice command for channel zapping

Just say 'Next' or 'Previous' to STB and STB zaps the channel for you. Another way could be, tell the channel name (e.g. Sony) and STB immediately tunes to that channel. Yet another way could be, tell the channel number (e.g. 201) and STB will jump to that channel.

Case Study 2: Voice command controlled EPG

The user interface of STB is EPG. The whole EPG user interface can be enabled for controlling using voice commands. For example, while watching a channel just say 'Record' and STB starts recording the show. To add the current channel to favorite channel list just say "Add to Favorite".

Conclusion

There is a huge opportunity of using this medium of interaction with electronic devices. We must explore this and add value to end users.