DEVELOPING A GESTURE-BASED GAME FOR DEAF/MUTE PEOPLE USING MICROSOFT KINECT

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ABSTRACT

It is essential to get disabled people involved and connected to each other and to the rest of the society. Games can be used for this purpose as well as encouraging them to be active physically. However, many of the current interactive games interact with users through voice commands which could be a problem for the deaf/mute people. Microsoft Kinect opens a new aspect for the gaming industry. This hardware can interact with players through a 3D vision and sound detector. This means players can use their body movements as well as their voice commands to control the game environment. The aim of this paper is developing a Kinect gesture-based game suitable for deaf/mute people. The Microsoft Kinect SDK for windows is used to develop a game which recognize the gesture command and convert the sign to the text commands in the game (in this instance Microsoft Shape game). Therefore, the deaf/mute player can enjoy taking part in this interactive game. Conclusions are drawn on how researchers can adapt and develop the new game environment which is understandable and compatible with deaf/mute peoples’ abilities.

KEYWORDS

Interactive game, Microsoft Kinect SDK, gesture recognition, deaf/mute people.