

# Augmented Reality Ears for the Hearing-Impaired People

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This paper presents an idea of an augmented reality based system helping the hearing-impaired to perceive the speech of people within the surrounding environment. Our approach expects only two small-sized pocketable devices, namely video glasses and a mobile device to detect speaking people and augment the video feed from the glasses with bubbles presenting what the people say identifying the speeches with the people as well. The main contribution of our approach is identifying multiple speakers at a time helping the hearing-impaired perceive their environment and the conversations much more easily.

## Augmented Reality Ears

**Augmented Reality Ears** is an innovative example of how can technology help people who are not that lucky.

With our solution people with serious hearing disabilities or impairment can “hear” again.

Speech - To - Text  
Companion  
Augmented Reality  
Experience  
Speaker Recognition

Speech Assignment  
Virtual Environment  
Perceive  
Convenience  
Ears  
Mobile  
3D

According to World Health Organization about 278 million people worldwide had moderate to profound hearing impairment.

Augmented Reality Ears almost literally **brings their hearing back** with the use of augmented reality. Both video and audio feed are sent from the video glasses to the mobile device, where they are processed by **identifying individual speakers** using combination of inputs and their speeches are presented back as text bubbles through the video.

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