Script for Demo Video

Paragraph 1: Welcome to FeelingPlus project. Our project presents a novel system design of an AR application called *FeelingPlus* which can be used as a learning tool for children to better understand the underlying meaning behind texts on storybooks. It aims to create a learning space for young learners by providing expressive audio effects and an interactive first-person view of story characters to facilitate perspective taking with multi-language options, thus helping children with implicit story comprehension. Perspective taking is a social-cognitive ability to recognize and understand another's point of view. The concept of implicit story comprehension involves the understanding of characters' feelings and causal relations in the story. The target age group for this project is children between 5 and 8 since it is a peak period to develop an understanding of others' perspectives. To achieve our goal, we have built three features into this application, including emotional and customized audio synthesis, interactive role-play, and multi-language access.

Paragraph 2: Here is our demo for FeelingPlus application using the storybook called "The Crocodile and the dentist". First, you can easily click on a website link through mobile phone or tablet. Then you will be able to use our application. Face the camera towards the target page on the storybook, you will see our interface. On the left-hand side and right-hand side you will see the crocodile icon and dentist icon respectively. Gently click on the icon, you will see three options: audio, video, and translation.

Paragraph 3: Clicking on the animation button, you will see our 3D animation of dentist or crocodile created via a modeling software called Blender with the version of 3.3.1. To show this is a very scary dentist and that is why crocodile says, "I am scared", we add "fire" inside of dentist's eyes. There is also a 2D video extracted from YouTube to explicitly explain why the crocodile is scared. It is because the dentist is about to use a sharp tool and it might hurt. The video is embedded through JavaScript.

Paragraph 4: The audio function leverages voice conversion technique to generate an expressive and emotional voice. It tells what is the underlying meaning behind the simple text "I am scared".

Paragraph 5: Next, when you click on dentist icon, you will see a video showing the crocodile is about to bite him. This explains why the dentist also says, "I am scared".

Paragraph 6: The application also provides multi-language translation for English and Chinese. Applying automatic translation from English to 132 other languages and multilingual voice conversion, developers can synthesize speech in any language without restrictions.

FeelingPlus:
A Design of Augmented Reality as a Learning Tool for Young Learners' Perspective-Taking and Implicit Story Comprehension

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