



SweetTooth

VR Sweets for diabetes-prone populations

SweetTooth is a VR application for individuals who have diabetes, or are prone to have diabetes because they have a 'sweet tooth,' which means the tendency for craving for a sweet snack. The application coupled with sugary perfume can transform a boring snack, like a whole wheat cookie with no added sugar, into an experience that could satiate one's 'sweet tooth' by engaging the user into a state of sensory distortion, which means that the user's senses may be tricked and render the user to think that the user is consuming a sweet snack.

Background



Sensory distortion dates back to the Joseon dynasty. There is a story where people would look at a salted fish hanging from the ceiling and pretend that they were eating the fish alongside their meal to save resources. Their eyes and their nose could be partially satiated as they would look at the fish and faintly smell the fish.



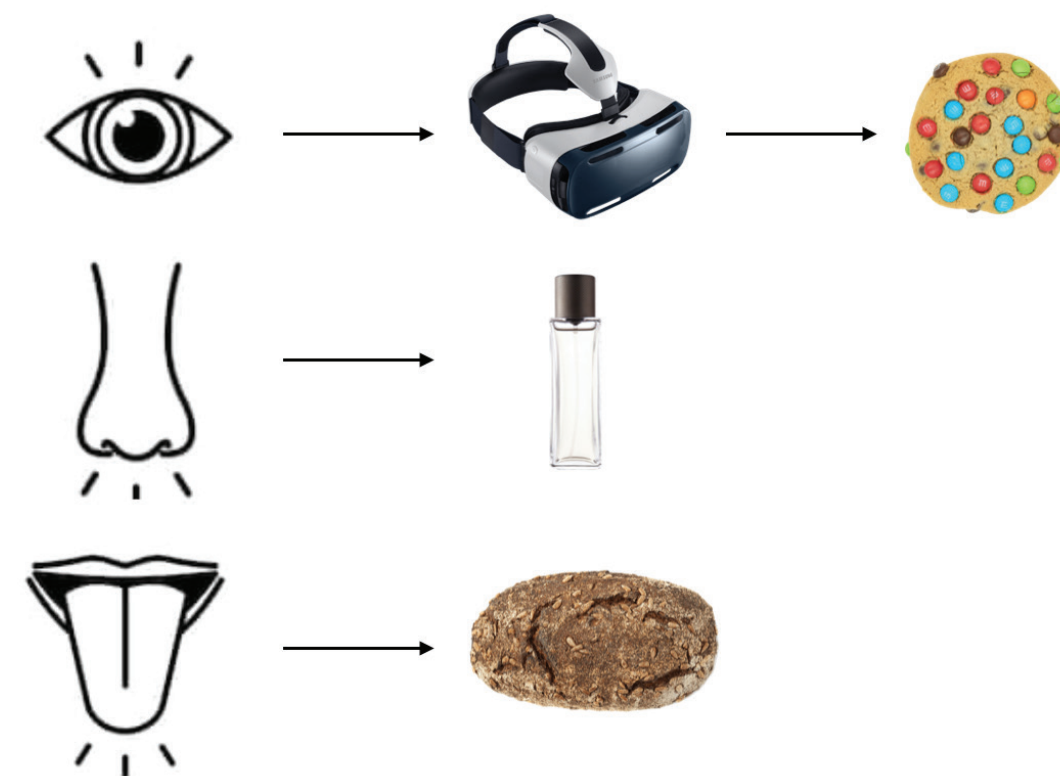
In 2019, "mukbang," which means the broadcasting of a person who consumes food for the viewers, is popular. People usually view a person consume a large amount of food and comment that they are satiated by watching someone else consume such a large meal. They say their appetite grows when they see "mukbang," and many users choose to consume meals when looking at "mukbang."

Existing Research



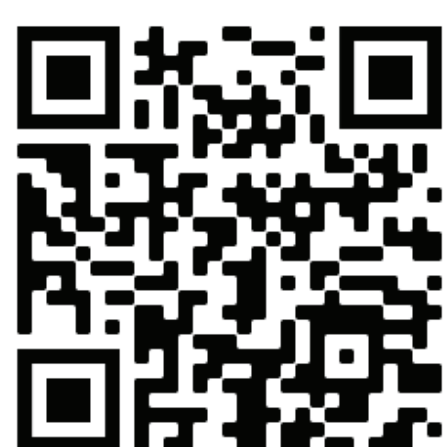
According to "Playing with senses in VR: Alternate perceptions combining vision and touch," 96% of the participants lifted their real finger when a virtual finger was pointed at; (A) is the image of a 6-digit hand, which adds a non-existent finger to the user's visual perception of the user's hand. (B) is the photo of the researcher conducting the experiment. This experiment proves that advanced sensory distortion is possible in the VR.

Diagram



People can view a virtual sweet snack via VR gear, smell a sugary perfume, and then eat a whole wheat snack simultaneously; this would render a sensory distortion as the user would think that the user is consuming a snack that is sweeter than the actual product that the user is having.

Survey



Please scan the the QR code above to participate in a survey about your perceptions on my work in progress. Your responses are anonymous and will be only used for research. A gift-card will be given to three randomly chosen participants on December 14th, 2019. Thank you!

Instructions & Future Work



In order to experience my work in progress, download the "VRdirect" app and input the following code: "pqbcpl." Then plug your phone into the VR gear, find a sweet snack, spray the perfume, and munch on a whole wheat cookie. Scan the QR code to view the video of the SweetTooth VR app. I wish to work on an AR version of this app and add on haptic feedback so that the experience is more immersive based on the feedback I garner.