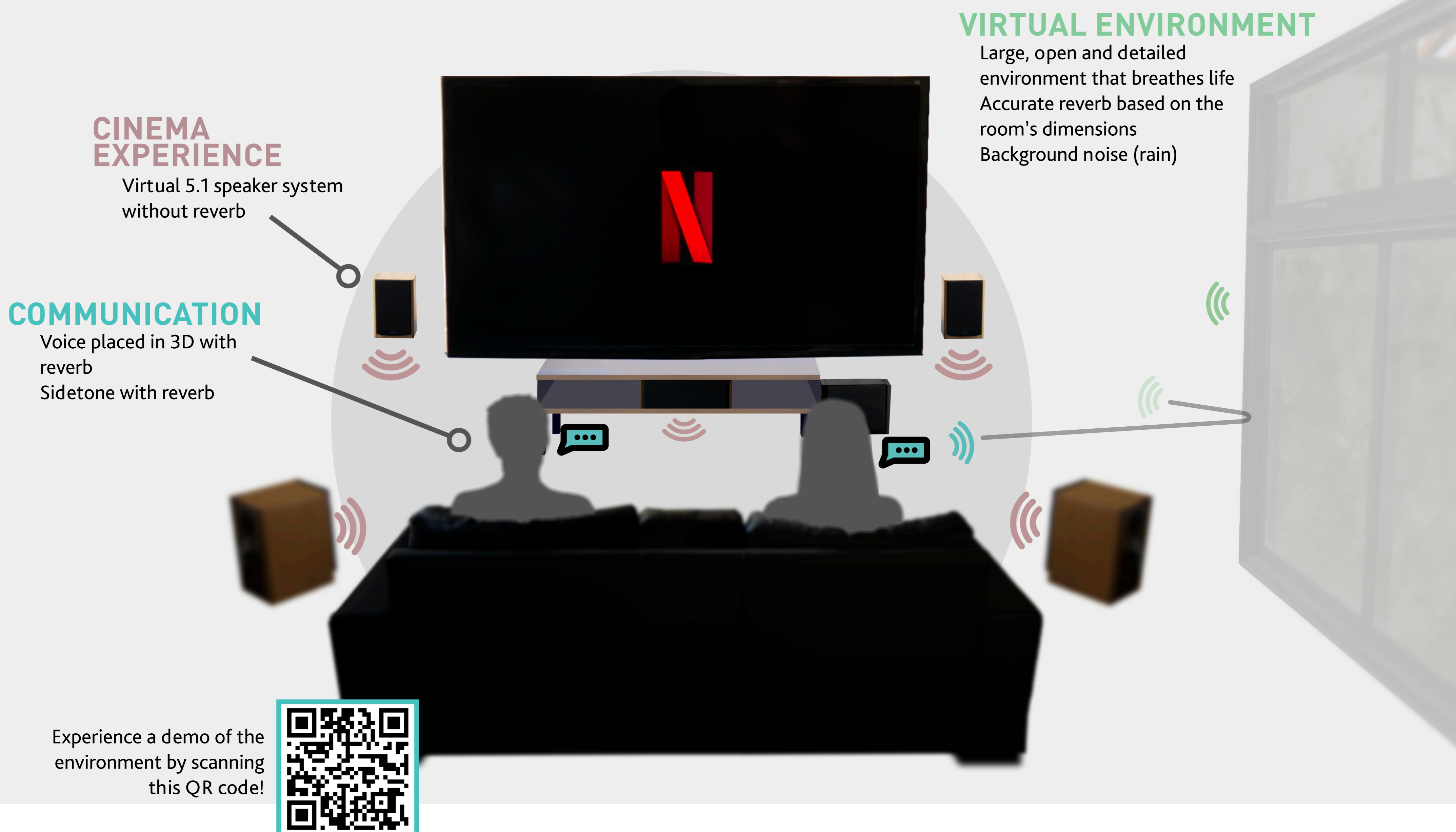


Defining the sound experience in Social VR

Social VR is a way of communicating with other people through Virtual Reality (VR) by integrating participants in the same environment and enabling them to interact with each other. This graduation project focused on the design of an immersive sound experience during a Social VR session between friends watching TV together.



Companies and content creators have mostly focused on the visual side of VR. However, sound has the ability to improve the immersivity and perceived quality of a visual display and virtual simulation in general. In social VR, it is especially important to be immersed.

The purpose of this project was to evaluate current implementations of the sound experience in Social VR and to improve that experience through user testing.

RESEARCH

A literature research was done, Social VR demos were tested, questionnaires were made, and two prototypes were developed and tested. The first prototype was made for a basic and passive Social VR experience. The second one was a more advanced prototype in which two users could speak with each other, watch TV, interact with buttons and see each other's avatar.

MAIN FINDINGS

- Users expect the experience to feel like real life, with realistic visuals and sounds. The experience should be relaxing, immersing, and give the sense of being together.
- Hearing yourself speak in VR through your headphones (sidetone) improves the experience and presence.
- Users expect a home cinema experience for the TV, which can be done with a virtual 5.1 speaker setup without reverb.
- Adding reverberation and spatialization to the voices improves co-presence and realism.
- The reverberation of the room should be accurate as users could sense when it did not match their expectations.
- The environment should be a reasonably large size for a living room, it should be open and detailed, and breathe life. It should also have a suitable background noise such as rain.