



# AN XR APPROACH TO SCHOOL REFUSAL

## COMMUNICATING XR IN A PROFESSIONAL CONTEXT

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Module 1: Communicating XR in a professional context



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# XR TECHNOLOGIES

XR technologies are technologies that can add a computationally mediated experience to our physical world.

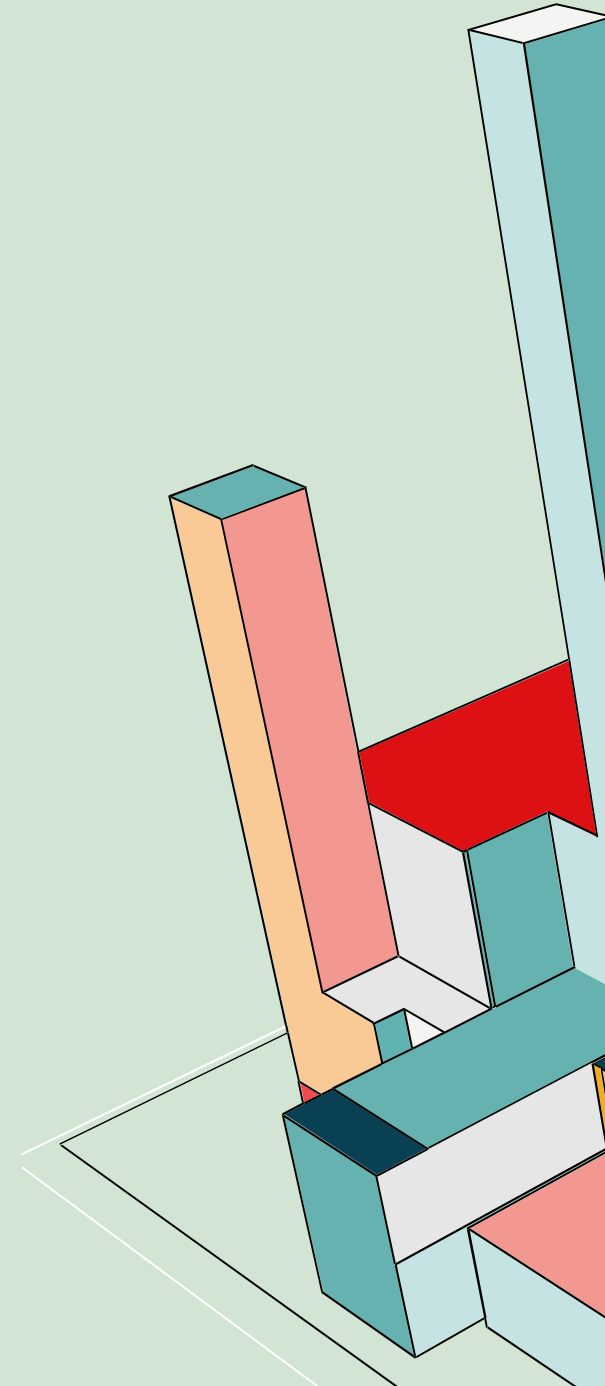
In what follows, I will argue that the use of “virtuality” -using computer simulations to alter someones experience of their surroundings, will benefit our company significantly, and I will present a solution to a current problem in our field of work.

The problem that I will address, is what we call “School Refusal”  
-the fact that a child refuses to go to school for a longer period of time.

This is a growing challenge in Denmark, and especially in our field as we work with children with different kinds of neural and social diversities.

XR technologies include both virtual reality (VR), augmented reality (AR) and what we call mixed reality (MR), but for this project I will be focusing on VR and MR -technologies.

For hardware and software is this particular case, I’m considering the Meta Quest 3 VR headset, and Cinema 4D and Unity to build the virtual worlds.



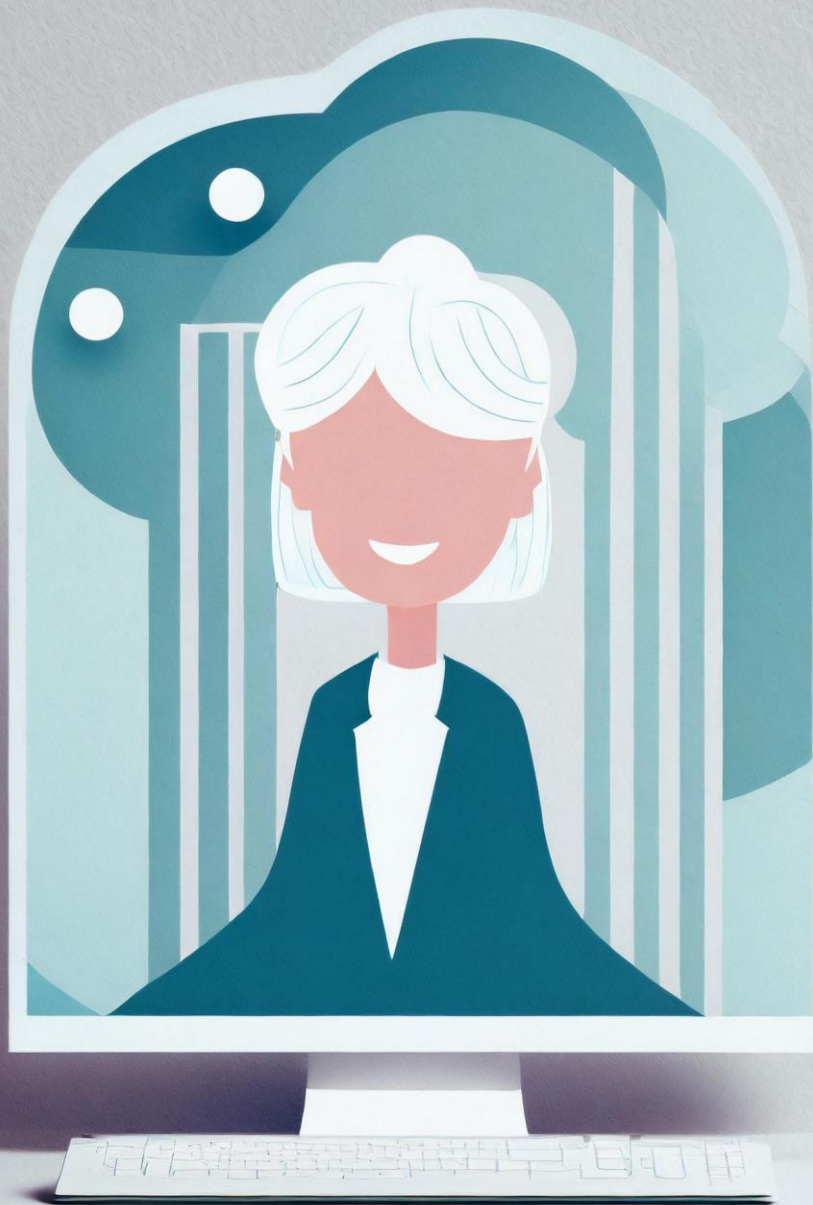
# PROFESSIONAL CASE PART 1: THE VR EXPERIENCE

VR experiences are a great way to immerse yourself into a different world. With a design that can be either photorealistic or entirely based on the creator's imagination -or anything in between, the creator is able to immerse the user into this world via goggles. Through recent years the VR technology has grown significantly better, and it is now possible to invite users to digitally mediated worlds even through their smart phones.

The home students in our work field are often terrified to visit a new school, but through VR experiences we are now able to simulate this experience as we meet these children in their homes, thus giving them a fully controlled and safe first encounter with their new school.

For reference, VR is already being used for exposure therapy all over the world, because of the ability to create realistic simulations in smaller steps and safe environments\*





# VIRTUAL IDENTITIES

Virtual identity is a collective term that refers to a variety of different ways that users can create identities on a computer, and most often in socially engaging apps or games. A virtual identity lets the user define a character that may or may not be similar to the users physical identity.

Professor Harrell uses the term blended identity to describe the kind of virtual identities that are not entirely driven by the computer. A blended identity adds one or more aspects of the users physical identity to personalize the virtual identity. This can be achieved for instance by changing the appearance of an avatar in a game, but it could also be in aspects such as behavior, or the ability to express personal preferences.

It's important to notice that communicating through virtual or blended identities contains as many challenges through bias of social, economic, racial, etc. kind, as in the physical world.

This is a matter of great importance, but it is too large a subject to be thoroughly covered here.

## PROFESSIONAL CASE PART 2: THE VIRTUAL IDENTITY

Through the use of a blended identity, the child will be able to visit our school on their own terms.

One way would be to allow the child to build an avatar, before the virtual school visit.

This way the visitor will be able to adjust just how much of their physical identity they want to invest into each visit.

At the same time we could create a virtual identity for the school representative, to meet the child in the virtual surroundings. This could be through an avatar that would look comforting or familiar to the child for instance via an avatar that looks like a friendly cartoon character.

The use of virtual identities opens a world of possibilities for connecting with these children.





## **PROFESSIONAL CASE PART 3: THE MR EXPERIENCE**

For the next step it would be obvious to invite the child to our school through a mixed reality experience.

The child could visit the physical buildings, and perhaps see the school representative's virtual identity -the comforting avatar presenting the new and unknown surroundings.

This approach would be referred to as an experience of "immediacy" although experienced in MR, because to the user -the child visiting school, it would appear as if the school avatar is in fact in the room with them.

# COMPUTATIONAL MEDIA

My goal with this brief assignment was to illustrate how the computer can serve as a media and not only as a tool.

By media I mean something that connects different worlds and/or people.

In this illustrated professional case the computer and the XR technology is used as a media between the child and the school representative, allowing the child to overcome an overwhelming experience.

I hope soon to be able to build a prototype of this exact example of computational mediation, as I believe that XR technologies holds an enormous potential to benefit thousands of children, and at the same time solve some of the current issues we are facing as an educational company.

