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Generating Ideas & Designing Solutions (SCTC 3185)

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Identify and Define a Problem

Adaptability is easily one of the most powerful strengths that humanity has, through its dynamic changes in sense manipulation. Throughout history we've always been able to curate our senses or environment to solve a problem or to create a context for a tool to survive. I want to continue speaking broadly about this "sensual manipulation", because it harps at the foundation of what our problem and solution can stem from. In a primitive context, sense manipulation was fundamental to surviving the vast and harsh landscapes of the African savannah or the Siberian tundras during early human existence. Humans had to use sense manipulation to their advantage to create a context so that they may survive. One of the first critical sense manipulation tools was fire, which created the context of warmth, cooking, and protection from predators. While fire may be a natural entity that can come to existence through natural forces, like a wild fire or a tree being struck by lightning, fire in this controlled context, allowed humans to use it to their advantage. Now you may be thinking that this term of "sense manipulation" is just another word for a tool, which you would be correct. But I want to emphasize the word sense, and the implication that the word can have when we manipulate our environment on a fundamental level through the manipulation of sight, hearing, smell, taste, and touch. Additionally I would also like to use the word "trick" when describing this behavior. Trick is a funny word, because when it comes to its use of being something that could be negative, like tricking someone for money, or being something positive like a joke to ease the mind or to push

someone to do something that's best for their own good. While that latter statement may be morally gray for some people to think about, I think it's a worthy cause to explore that trickery of the mind through sense manipulation.

Let's look at this "sense manipulation" in a modern context. Within our current society filled with generally expected capitalistic and market driven decision making, sense manipulation has turned away from the use of generating tools to generating wants or "needs". The amount of examples are omnipresent with the field of marketing in every facet of our lives, the use of social media to manipulate our perception of what is real, and general exploitation of human sense for the use of wealth rather than something substantial like a tool or piece of technology. Through the development of the modern implications of "sense manipulation" with an emphasis on non-tool creation, we have seen the emergence of subcultures that are looking to break away entirely from this physical reality that we are all present in.

Virtual reality aka VR, has always been a subconscious want for humans ever since our early existence. What I mean by this is that VR relies on the idea of going somewhere else from where you currently are. This has always been a key element of early human cultures, whether it be wanting to go to Heaven or being enlightened in another dimension with Buddha, the idea of VR has always been a part of our lives. It's just that now with our modern technology we are able to make that jump of "going somewhere else" a reality.

Mental health across the world has been on a negative downward trend at an astronomical level for decades now. We have seen this collectively with the rise of social media and how it negatively affects younger or more impressionable generations. Additionally we have seen this in combination with one of the most impactful pandemics in human history with COVID and how it generates a deeper sense of isolation and as a result produces an individual who can not

function socially when thrown back into society. This dramatic drop in societal function has created an environment where people can not collectively (emphasis on collective), function at all. In the case of depression, which is one of the most common mental disorders in the US (NIMH, 2022), it can produce the occasional result of suicide which is another leading cause of death in the US (NIMH, 2022). When we look at the general philosophy of suicide it stems on the want to be removed from your pain and suffering in your current reality, by killing yourself. But what would happen if we fundamentally changed the environment or context that a person is living in so that they are able to live and properly function in a collective manner? This is at the heart of what I plan to solve.

To put it in more blunt terms, the core problem is that people currently in society cannot function with the reality they are living in. This problem is applicable to all variations of this central problem, whether it be being depressed, feeling unfulfilled in life, feeling lonely or isolated, etc. All these problem variations stem from the same result that our current reality is becoming or feeling like we can't do anything to change it. While this problem is broad and immensely complex, I want to focus my attention on providing the tools or context for people to enter an environment where people are comfortable in a virtual space so that they can heal and eventually turn back to their physical reality with a more healthy perspective.

The current established method to treat these issues, whether it be suicide, depression, general anxiety, severe ADD/HD is to seek professional medical attention, specifically therapy. One of the meta goals of therapy is to create an environment where the individual is comfortable with what they can share in a physical space with another person across the room. This is a good starting point for solving this problem but it shows many flaws when it comes to asking the question of why people DON'T go to therapy. If we look at the conditions that people have when

they go into physical therapy (not the physical type for body treatment), there's certain implications that mental disorders can impose on the individual to divert them from seeking help in the first place. A great example is the problem of anxiety, specifically social anxiety and how it breeds the urge to stay away from social situations completely to protect oneself. While this may be an extreme example to prove a point, it shows a general problem that the physical space that people interact with in therapy is insufficient to solve the individual's needs in the best way possible.

My solution is to create a limited customizable VR "therapy room" for an individual to interact and create a comforting context to make VR therapy the most effective treatment possible. This will be done by using the philosophy of "sense manipulation", to alter the individual's sight and hearing senses. I will talk about these in more detail later. The reason why I have not included the other senses, taste, touch, or smell, is because current affordable technology is not available for these senses to use towards this solution. While there are haptic feedback based chest and hand pieces, they are still in the early stages of development and cost thousands of dollars to reproduce. For my solution I will focus on the elements of hearing, in the context of generating a calming environment that the individual can control for themselves. Additionally, the use of VR is obviously manipulating the individual's sight, it needs to be altered to a certain context for the individual to be fully comfortable in the space. This "certain context" will include the ability for the individual to manipulate the colors of certain objects in the room (such as a wallpaper or rug on the ground) to generate an environment they feel the most connected to. While the entire focus of this solution is based on the individual, it serves the meta-purpose of tricking the user into making conversation, engagement, and connectivity with the therapist immensely easier.

Fortunately a lot of my statements/solutions above have already proven to be fruitful in the purpose of solving this problem. For example there was a study about “Examining the potential of virtual reality to deliver remote rehabilitation”, that essentially confirms that VR can be used as an effective substitute for video call based therapy. The study compares the general effectiveness of each technology within the context of therapy by offering both VR and Skype-based therapy sessions with over 30 individuals. According to the study, “client experiences in VR were generally superior to those in Skype” (Shiva, 2020). In the discussion tab of the study, they talk about the implications of what VR can do to serve an individual within a therapeutic setting. For this study, VR’s quintessential element is making the individual feel like they were “there” and in the same space as the therapist. Speaking past the study, social media, the internet, online spaces, and everything in between give a sense of masking to an individual to fully indulge in an avatar that is not themselves but something that they can bend to their will. VR can be used to the most extreme degree to take advantage of this avatar morphing to solve an endemic problem throughout the world. While there is room for improvement on the hardware and software side of this solution, we cannot ignore the implication that VR can have on individuals who simply need support and a context for them to heal and thrive back in the physical world.

Works Consulted

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