

GNG 1103

Deliverable B

Needs Identification, Problem Statement and
Benchmarking

Team #F3.3

Bennett Gibson [300127904]

Joshua Kayanja [300113403]

Liel Ilatov [300231485]

Sophie Thomson [300257162]

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Faculty of Engineering — University of Ottawa

Introduction

The School of Engineering Design and Teaching Innovation (SEDTI) is an organization at the University of Ottawa overseen by the Faculty of Engineering. Hanan Anis, the head of SEDTI, is very concerned about the discrimination that many people face on a day-to-day basis, both in their personal and professional lives. Hanan wants an immersive way to educate masses of people about the struggles these people face, to hopefully eliminate the stigmas that cause the discriminatory actions, both conscious and subconscious. She has challenged us to develop a virtual reality game/system that will make people more aware, and more empathetic to those affected.

We were introduced to a panel of five people, of different races, religions, sexuality, and disability. We heard some of their experiences and asked them questions to guide us to a solution. It is our job to choose one or two of these issues, and move forward with developing a virtual reality system. Firstly, we must interpret the needs for our system, to develop a problem statement. Then we can continue with benchmarking, before developing our first prototype.

Client Statements/Observations

Table 1: Interpreted need analysis according to the clients' statements. Each interpreted need is evaluated on a scale of 1 (least important) to 5 (most important) based on their priority.

Customer statements	Interpreted Need	Importance
Create an immersive experience for people to know what it's like being in someone else's shoes	Develop a way of understanding an individual's life experiences via virtual reality (VR)	5
Must make a person empathize with others struggles	Educate the user on different races, religions, sexualities and disabilities, and appreciate their differences	5
Must be easy to maneuver around the program	Users can go through the experience with minimal help, regardless of familiarity with technology	3
Easy to use and relatable for all ages	Appropriate for all ages	2
Should have wide-reaching, widespread applications and uses	Easy to access, can be implemented in most schools, businesses or homes	5
Experience must be affordable (low cost)	Reasonable cost for businesses/schools/homes to purchase	1

Problem Statement

A design project created to educate individuals on current injustices against race, gender, sexuality, disabilities, and individuals of all backgrounds through an immersive experience. This project will provide a solution that promotes equity, diversity, and inclusivity.

Benchmarking

Table 2: Outlining similar products that are related to the problem being addressed.

	Equal Reality	Wee You-Things	The Diversity Gap
Description	A VR inclusion and diversity training module was created for the workplace. They have developed a wide variety of VR environments that are aimed to promote positive behavioural changes. Their VR library allows individuals to experience and rehearse difficult situations to be better prepared and to understand how to react and overcome hardship. https://equalreality.com/	A friendly, positive phone application designed for young kids to learn to appreciate differences in people. It encourages them to ask questions and allows the kids to create their own character and become part of the story. https://weesociety.com/products/wee-you-things-app	A Podcast series that aims to create a world where all people are seen, heard, respected, and given what they need to thrive, through thoughtful conversations and authentic storytelling. https://anchor.fm/bethaney-wilkinson
Customer expense	\$100+	\$5	\$0
Age Range	14+	3-7	14+
Needs met	<ul style="list-style-type: none">- VR experience- Educates to increase empathy and inclusivity	<ul style="list-style-type: none">- Easy to use and access- Promotes diversity and differences to reduce discrimination	<ul style="list-style-type: none">- Engaging- Provides personal experience

Conclusion

After the first client meeting, the team has discussed the problem at hand and created a list of needs that were interpreted from the panel of individuals that face injustices. In the future weeks, the team will continue to assess these needs to design an immersive experience that educates the user and promotes the importance of EDI.

References

Diversity inclusion training in virtual reality. Equal Reality. (2021, September 10). Retrieved January 28, 2022, from <https://equalreality.com/>

Wee You-Things App. Wee society. (2022). Retrieved January 28, 2022, from <https://weesociety.com/products/wee-you-things-app>

Wilkinson, B. (2020, December 29). *The Diversity Gap • a podcast on Anchor*. Anchor. Retrieved January 28, 2022, from <https://anchor.fm/bethaney-wilk>