GNG1103 Deliverable B

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# Abstract

The following document provides the reader with information that will be used to develop an application that educates the user on climate change. The document includes both client needs and a problem statement, which were collected during the client meeting on January 21st, 2025. The document also describes the “National Geographic Explore VR” and does some benchmarking (both technical and user) on the product to collect insight on how our team could create a successful application. Finally, the document highlights any unclear information that will be addressed in later client and group meetings.

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# 1 Introduction

On January 21st, 2025, our first client meeting was held. The purpose of the meeting was for our team to gather information for later use during product development. After the meeting, our team organized the information we gathered into four groups. These groups include client needs, problem statement, user benchmarking, and unknown information. This document goes into detail about these four groups and is intended to be used to create a successful product for the client.

# 2 Client Needs

From the notes taken during the client meeting, our team created the following list of needs:

## 2.1 Overall Product Needs

1. Includes an immersive XR software
2. Includes a survey

## 2.2 XR Software

1. Bilingual software
2. One to three minutes long
3. Accessible to as many users as possible
4. The software tells an educational story on climate change
5. The software is interactive: the user will interact with the story being told

## 2.3 User Survey

1. Bilingual
2. Three closed answer questions
3. Presented to the user preceding and following the XR software experience
4. Extrapolates data regarding the users change in perspective after the XR software experience
5. Able to identify individual entries that may skew the data results

# 3 Problem Statement

Using the client needs above, our team came up with the following problem statement:

The client requires a brief (1-3 minutes), immersive extended reality (XR) experience that educates the users about a potential consequence of climate change through interactive, engaging, informative, and feasible storytelling, The experience should begin and end with an identical, 3 closed-answer question survey to examine the user’s emotional response and perspective.

# 4 Benchmarking

## 4.1 National Geographic Explore VR

National Geographic Explore VR is an app that allows users to explore two locations, Antarctica and Machu Picchu, Peru. The simulation is described as interactive and immersive. (1)

## 4.2 User Benchmarking

The Reviews of the product are mostly positive. Users seem to enjoy the immersive aspect of the software. The positive reviews mentioned the sound effects, the visuals, and the feeling of “really being at the locations” that are offered. The software appeals to adults and children alike, since users may choose how they explore. The negative reviews mention technical difficulties, price, the single user aspect, and that only two locations are offered.

## 4.3 Technical Benchmarking

The relevant technical aspects of the product are as follows:

1. Single user: Only one person can experience the software at a time.
2. Interned connection: Not required
3. Languages: English, French, German, Japanese, Korean, Spanish
4. Description: Offers two locations in a VR experience

## 4.4 Benchmarking Application

Using the information collected from the user and technical benchmarking, our team came up with the following points:

1. A multiple user software should be taken into consideration to reach a larger audience.
2. Users really enjoy the immersive experience that VR offers, describing it as both fun and realistic. This includes visuals and sound effects.
3. The no internet aspect of the product will make it more accessible
4. The app must be tested prior to release to avoid technical difficulties

# 5 Unknown Information

After creating a list of needs, creating a problem statement, and doing some benchmarking, our team came up with the following additional questions:

1. Is a multiple user simulation a mode that we can/should consider?
2. What are the benefits of VR versus AR, and which one should be used?
3. Should we offer a wide range of decisions to ensure that users remain engaged?

6 Conclusion

The app that our team has been assigned to create should educate the user on the effect of climate change. We have established that this software must be accessible, immersive, and interactive. The logistics of the app will be developed further after meeting again with the client and asking our additional questions as well as considering the different XR options.

# 7 References

1. Games, V. (2022). National Geographic Explore VR. Meta.com; Vertigo Games. https://www.meta.com/experiences/national-geographic-explore-vr/2046607608728563/?srsltid=AfmBOooTRRvxWMAYFV4ZRZ\_ZPiiGbqEBE4s7qn8Ya-o3-1ZlSiQzRUOl