

GNG 1103 Team 02 – Deliverable B: Needs Identification

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Introduction:

Mines Action Canada is employing the students of GNG 1103 to produce a VR video displaying the potential future of lethal autonomous weapons. Our task is to design an environment equipped with strategies for civilians to defend themselves from these autonomous weapons. During the first meeting, we asked questions to help us get a better sense of direction. This document will contain the client's needs and our interpretations of them. As well as a problem statement. We will also benchmark other designs that might meet our client's needs.

Client Needs:

Questions	Client Responses/Requests	Interpreted Needs	Priority
<i>What things should we avoid?</i>	<ul style="list-style-type: none">• <i>Avoid mentioning specific countries</i>• <i>Keep graphic content to a minimum</i>• <i>Should be able to show to a large audience.</i>• <i>The product will be put online</i>	<ul style="list-style-type: none">• <i>Avoid singling out specific groups of people.</i>• <i>Graphic content should be kept at a minimum.</i>	4
<i>What is the scale of the environment?</i>	<ul style="list-style-type: none">• <i>The experience can be as large or small as you like</i>• <i>Don't be too ambitious</i>	<ul style="list-style-type: none">• <i>The environment size should be reasonable to the time provided</i>• <i>So long as you can experience it in one minute.</i>	4
<i>What is the ideal duration of the experience?</i>	<ul style="list-style-type: none">• <i>It should be a one-minute video.</i>	<ul style="list-style-type: none">• <i>The video should be within one minute</i>	3

<p><i>Because the desired product is a video, is VR functionality necessary?</i></p>	<ul style="list-style-type: none"> • <i>There should be some technical aspects to your design.</i> • <i>Ideally it should be a 3D VR environment</i> 	<ul style="list-style-type: none"> • <i>The application of precise engineering principle to get optimal solution.</i> • <i>It should be immersive and realistic</i> 	<p>5</p>
<p><i>Can we depict changes that the government would make instead of the citizens?</i></p>	<ul style="list-style-type: none"> • <i>You can show how citizens adapt to the changes, but you may show another perspective also</i> 	<ul style="list-style-type: none"> • <i>Video can entail other modifications that are not done by the citizens</i> 	<p>2</p>

Problem Statement:

An immersive Virtual Reality environment is needed by Mines Action Canada to portray an unidentifiable city defending itself from autonomous weapons with low tech, nongraphic solutions, while being size appropriate for a one-minute experience.

Benchmarking:

In the review of a VR product for the U.S Navy the designing company InstaVR detailed aspects of their product that could prove useful for our client, Mines Action Canada.

The first striking resemblance was the duration of their videos, as highlighted in the report, “Very few individuals will get to experience the adrenaline rush of flying inside the cockpit of such a remarkable military aircraft. It was important for the videos to be short. The average for each of the five videos is approximately one minute.” This quote is referring to the fact that given products like these can be overwhelming to new users, it is vitally important to have a concise video, one that won’t lose the interest of the viewers or go over the top. This speaks to the importance of keeping our product short and concise while also informative.

Moreover, the report outlined an aspect of the product that our client may choose to explore. The report detailed how a narrative was used to guide the user throughout the video. This was outlined as the report read, “The user can then choose to explore four additional short story threads. Each is accompanied by a Commanding Officer narrative.” This quote explains how InstaVR implemented a backstory to enrich the experience for the

user. Given that many members of the U.S Navy who witnessed the video were new to VR, they found someone talking them through the environment allowed them to obtain a deeper understanding of what was actually happening.

Given the similarities between the product outlined in this report and the one we have been tasked with designing for Mines Action Canada, it can be assumed that our clients may benefit from a background narrative in the video. This is a topic we can further explore with our client to attempt to produce the best possible product.

Left of creative (US navy) - instavr tradeshow exhibition client use case (2018) InstaVR. Available at: <https://www.instavr.co/customer-stories/left-of-creative-us-navy> (Accessed: 28 January 2024).

Conclusion

In conclusion, our client Mines Action Canada, is seeking a one-minute-long video to illustrate a city that has implemented low tech solutions to defend themselves against autonomous weapons. This city must be unidentifiable and therefore cannot include images representing a specific city or culture. The video's purpose is to portray defense strategies to people who can create change. With that being said, there should be little to no explicit graphics, and the image of battle with the autonomous weapons is not the intention of the product. The environment should be immersive and realistic, and the design should also include some technical aspects. It was made clear that the environment does not need to be huge, but rather small and detailed.

These needs can be summarized in our problem statement, an immersive Virtual Reality environment is needed by Mines Action Canada to portray an unidentifiable city defending itself from autonomous weapons with low tech nongraphic solutions, while being size appropriate for a one-minute experience.

After benchmarking similar products, our team identified an area of the design where improvements can be made. This possible new aspect of the product is a narrated background to guide users through the video. This topic will be mentioned to Mines Action Canada at our next client meeting.

After empathizing with our clients our team developed a list of their needs and organized them based on importance. We developed a problem statement and explored new possibilities through the benchmarking of similar products. We are now in a good position to progress to the next stage of our design process.

