Deliverable B: Needs Identification and Problem Statement

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Introduction

From conception, the ethical question of artificial intelligence (AI) has endured significant inquiry, near proportional to that of its very technological capacity. Contemporarily, the matter of autonomous AI weaponry or *Killer Robots* has been subjected to said inquiry, as the vigorous pace of technological advancements suggests the once abstract concept may reside no further than beyond the horizon. Regardless of its proximity, the residual theoretical nature of the threat posed by *Killer Robots* hinders its perceived urgency, impeding progress towards tangible political action. Furthermore, the precise threats posed by Killer Robots are not fully understood, contributing to the persistent political ignorance despite the growing concerns of autonomous AI weaponry breaching humanitarian laws, with no legal framework to govern it. These growing concerns of a plausible future orients this design process, looking from within and extrapolating beyond to idealize a precautionary awareness, in hopes of upholding the integrity of international law, and the safety of all civilians.

Project Overview

Mines Action Canada needs our team to create a minute-long video of a VR environment showing the consequences of autonomous weapons. This video's goal is to persuade those in power that autonomous weapons will cause untold problems. It should evoke urgency among decision-makers to make changes before the potentially devastating consequences of autonomous weapons come about. The video should show what civilians would do when their city is occupied by "killer robots". What are the ethical concerns, and who is this going to affect the most?

Raw Data	Interpretations	Groupings/ Rating
Clear and concise video	Do not focus on making a complicated video, focus on being concise and effective	3 - Simplicity
One minute video length	Be strategic in what is put in the video, as to convey the story within the length	
Make people feel something (fear, inspiration, urgency, etc.)	Emotions provokes action. If people feel like it really is a problem, they will act as such.	
Target audience: Decision-makers	Apply pressure to people in power	5 - Provoke urgency
Focusing on the storytelling	Focus on cultivating empathy and urgency amongst the audience rather than showcasing technical innovations	
Interactive VR environment	Make use of VR technology, such that the environment is functional and interactive	1 -VR Experience
VR Walkthrough Video	The video should consist of a minute walkthrough of the VR environment (makes it more accessible for showcasing)	
Civilian adaptations	Showcase plausible protective adaptations against Killer Robots	4 - Technological Adaptations
Adaptation over threat	Do not focus on showing robots or the threat itself, rather the result of this threat in changing our way of life	
Cater to random people's knowledge	Video should appeal to a general audience, and should include adequate context to be easily understood with needing background knowledge	3- Universal
General video environment	Everyone should be able to identify with the environment, such that the reality of the situation becomes tangible	
Accessibility	Video should not include flashing or explicit imagery	
General video content	Explore showcasing adapted life for differing socioeconomic backgrounds	

Deliverable B

*Rating scale: 1 – Least Important, 5 – Most important

Problem Statement

        Mines Canada asked us to create a VR experience where the individual could experience a world in which autonomous weapons are widespread, to instill a sense of urgency in the politicians and diplomats who hold the power to stop the development of these weapons. To do this, the video will show how people adapt to the threat by changing their lifestyles, clothes and behaviour.

Benchmarking

        To gain a better understanding of how autonomous weapons are interpreted and displayed, we looked at multiple examples in different industries. In Hollywood, we have movies such as iRobot and shows like Black Mirror that both have depictions of autonomous weapons. These visuals show robots that went astray and became 'evil', pushing the narrative of killer robots. Secondly, we looked at AI software that regular day-to-day people might use, which are ChatGPT and Snapchat AI. Although these two are regulated by code, they are both autonomous in the sense that they can conversate with a user without the need for supervision. These forms of AI are generally liked by users as they are useful and pose no threat. But that is not the case. In an article by Shelby Hiter, she delves into the safety and privacy dangers of these AIs. Sometimes the developers do not include proper privacy protections and people's data can get leaked, or there can be a bug in the AIs code which can also cause a data leak. In general, the depictions in AI today are varied but share a common theme of mistrust.

Unknowns/Concerns

- How to ensure that autonomous weapons comply with the rules of war, such as distinction, proportionality, and necessity, and respect human dignity and rights.
- How to assign accountability and responsibility for the harm caused by autonomous weapons and provide legal and ethical oversight and regulation.
- How to address the potential bias and discrimination that AI systems can exhibit, especially when they affect life-and-death decisions and human security.
- How to ensure the predictability and understandability of AI systems, and avoid the risks of malfunction, hacking, or loss of control.

Conclusion

        In conclusion, Mines Action Canada's, goal is to persuade decision-makers to avoid the use of autonomous weapons. Their concern revolves around the consequences that AI military robots could pose to civilians and civilian objects. Mines Action Canada has tasked us with creating a VR environment that depicts living in a world where autonomous weapons are employed, and how humans would adapt to such scenarios. The main aspects that the clients mentioned are provoking urgency, technological adaptation, universality, and simplicity. Some unknowns and constraints that we face include addressing biases, preventing autonomous weapons, and avoiding the risks associated with malfunctioning autonomous weapons. Based on the users' benchmarking research, it is evident that contemporary AI exhibits a theme of mistrust and a lack of privacy. Our goal is to construct a VR experience that aligns with the criteria, aiming to assist Mines Action Canada in inspiring the world to advocate for the ban of autonomous military robots, ensuring the safety of civilians.

References

Hiter, S. (2023, September 20). *Ai and privacy issues: What you need to know*. eWEEK. https://www.eweek.com/artificial-intelligence/ai-privacy-issues/