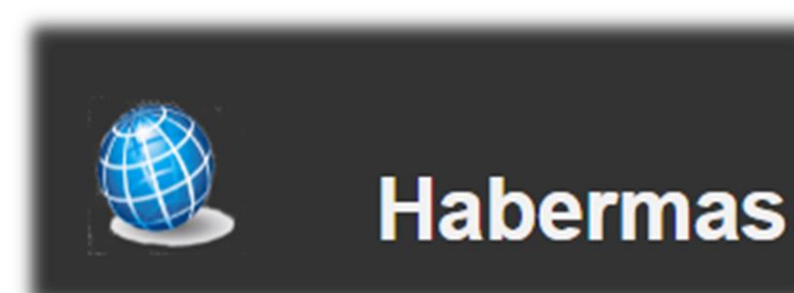


Abstract

For this project, we created a web application that allows users to conduct ethical risk assessments for various proposed AI technologies. The application will allow businesses to create potential scenarios that may arise as a result of implementing these technologies and assess the potential ethical harms associated with these scenarios.

Introduction

Habermas is an online collaborative tool that allows users to evaluate the likelihood and severity of ethical harms that could potentially arise in a given scenario. First, a user can create a project relating to AI technology and then create intended and/or unintended use cases for that specific project. The user can then create potential scenarios that may arise as a result of a particular use case and assess the ethical risks of each scenario. Lastly, the user can create mitigations for each scenario that can mitigate the severity of ethical harms that occur in the scenario.



Research Question(s)

- How do we create a web application that is easy to use and allows for user collaboration?
- How will we collect and store user opinions on ethical harms associated with a given scenario?
- How will we utilize and present the data we collect?

Materials and Methods

In order to create Habermas, we created a PHP-based website to allow for storing and retrieving information in a database. The frontend of the website is built using HTML and CSS. The database we used to store user information is a MySQLi-based database which allows for both procedural and object-oriented programming. The website and database are hosted using Windows Server.



Results

Overall, we were able to create a dynamic web application and database that collects and stores user-created projects, use cases, scenarios and mitigations, as well as ethical harm assessment data. The web application implements a form that allows users to rate the severity and likelihood of various ethical harms that may occur for each created scenario. In addition, we created a comment system that allows users to share their thoughts and opinions on the projects, use cases, scenarios, and mitigations created by others. The application also utilizes an algorithm that aggregates users' ethical harm assessment data and displays the data in the form of a chart.

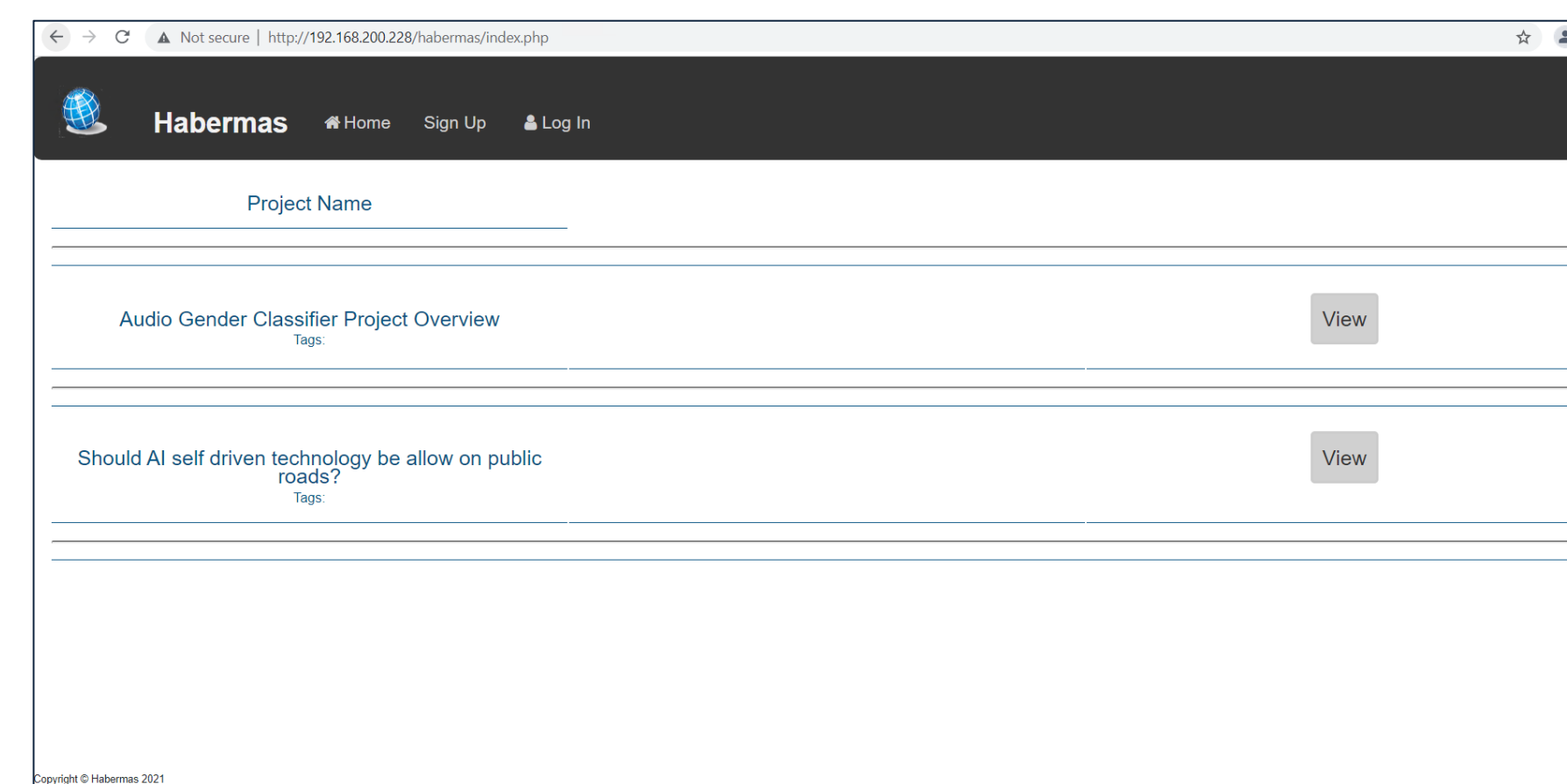


Figure 1: Index page of the Habermas website

	0 - none	1 - minimal	2 - minor	3 - moderate	4 - severe	5 - very severe
Representational Harm:	0	0	0	0	0	0
Allocational / Economic Harm:	0	0	0	0	0	0
Parasitic / Exploitative Harm:	0	0	0	0	0	0
Product Exclusion / Emotional Distress:	0	0	0	0	0	0
Environmental Harm:	0	0	0	0	0	0
Physical/Bodily Harm:	0	0	0	0	0	0
Denial of Rights/Liberties, Discrimination, and Bias:	0	0	0	0	0	0
Change to Social/Political Infrastructure or Dynamics:	0	0	0	0	0	0

Figure 2: Excerpt of the Habermas ethical harm assessment form

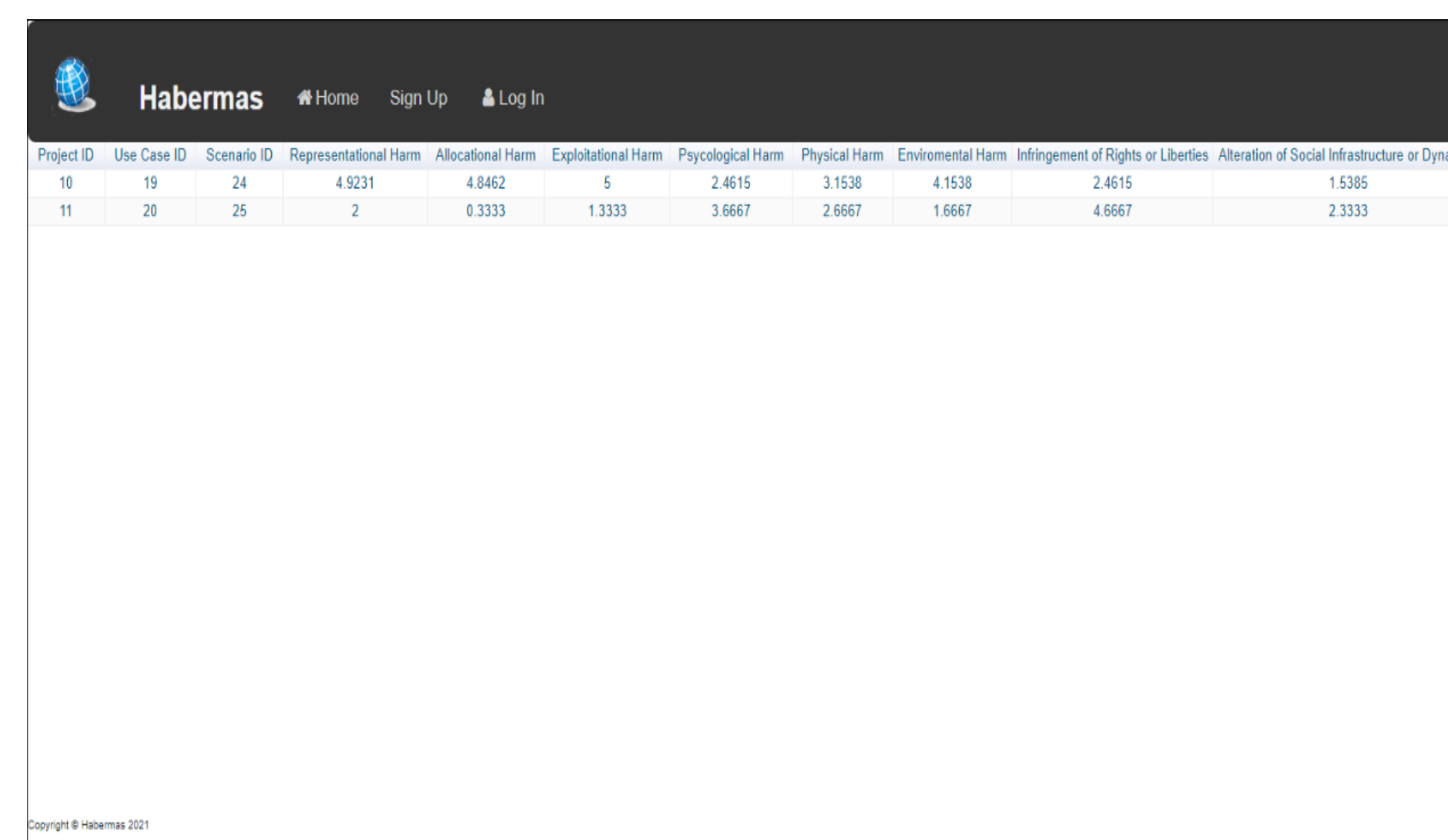


Figure 3: Chart displaying aggregated ethical harm assessment data for two different scenarios

Conclusions

In conclusion, the Habermas web application can help businesses and individuals analyze and discuss the potential ethical impacts various AI technologies can have on society. It also allows users to collaborate on finding ways to mitigate the harmful impacts associated with AI.

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References

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