# GNG1103

# **Design Project User and Product Manual**

# **Deliverable K – User and Product Manual**

Submitted by:

EmpathyFlix F.3.2

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April 17th, 2022

University of Ottawa

# **Table of Contents**

Table of Contents i	ii
List of Figures	v
List of Tables v	'i
List of Acronyms and Glossaryvi	ii
1 Introduction	1
2 Overview	2
2.1 Cautions & Warnings	4
3 Getting started	5
3.1 Configuration Considerations	7
3.2 User Access Considerations	7
3.3 Accessing/setting-up the System	7
3.4 System Organization & Navigation	7
3.5 Exiting the System	7
4 Using the System	8
4.1 The Interview – Sample scenario	8
4.2 The Template	8
4.2.1 Template Story	8
4.2.2 Template Immersion	9
5 Troubleshooting & Support	9
5.1 Error Messages or Behaviors	9
5.2 Support	9
j	ii

6	Pro	duct	Documentation	)
	6.1	Sub	system A: Narrative Content	)
	6.1	.1	BOM (Bill of Materials)	)
	6.1	.2	Equipment list	l
	6.1	.3	Instructions	l
	6.2	Sub	system B: Visual Simulation11	l
	6.2	.1	BOM (Bill of Materials) 11	ł
	6.2	.2	Equipment list	2
	6.2	.3	Instructions	2
	6.3	Sub	system C: Communicative Element	3
	6.3	.1	BOM (Bill of Materials)	3
	6.3	.2	Equipment list	1
	6.3	.3	Instructions14	1
	6.4	Sub	psystem D: Main Menu15	5
	6.4	.1	BOM (Bill of Materials) 15	5
	6.4	.2	Equipment list	5
	6.4	.3	Instructions16	5
	6.5	Tes	ting & Validation16	5
7	Co	nclus	sions and Recommendations for Future Work	)
8	Bit	oliog	raphy21	ł
9	APP	ENE	DICES	2
A	PPEN	DIX	I: Design Files	2

# List of Figures

Figure 1: EmpathyFlix Main Menu
Figure 2: Flowchart Summary of EmpathyFlix 4
Figure 3: Opening EmpathyFlix
Figure 4: Description of the Simulation
Figure 5: Scene from the Template Simulation
Figure 6: Creating a Script in Unity
Figure 7: Making a Button in Unity15
Figure 8: Percent of University of Ottawa Students who took the Prototype 3 Survey 16
Figure 9: Emotions felt by users who took the Prototype 3 Survey 17
Figure 10: How strongly the users felt their emotions on a scale of 1 (not strong) to 10
(very strong) while partaking in Prototype 3 Survey
Figure 11: How immersed users felt on a scale of 1 (not immersed) to 10 (very immersed)
while partaking in Prototype 3 Survey
Figure 12: How clear users found the audio in Prototype 3
Figure 13: How easily the users could read the subtitles in Prototype 3

# List of Tables

Table 1. Acronyms	. vii
Table 2. Glossary	. vii
Table 3: Bill of Materials for Subsystem A	. 10
Table 4: Bill of Materials for Subsystem B	. 12
Table 5: Bill of Materials for Subsystem C	. 13
Table 6: Bill of Materials for Subsystem D	. 15
Table 7: Referenced Documents	. 22

# List of Acronyms and Glossary

### Table 1. Acronyms

Acronym	Definition
VR	Virtual reality
EDI	Equity, Diversity, and Inclusion

### Table 2. Glossary

Term	Acronym	Definition
Virtual	VR	The use of computer modeling and
Reality		simulation that enables a person to
		interact with an artificial three-
		dimensional (3-D) visual or other
		sensory environment. [1]
Equity,	EDI	A term used to describe policies and
		programs that promote the
Diversity,		representation and participation of
and Inclusion		different groups of individuals,
		including people of different ages,
		races and ethnicities, abilities and
		disabilities, genders, religions,
		cultures and sexual orientations. [2]

# **1** Introduction

The client, Professor Anis from the University of Ottawa, has asked for an immersive tool that fosters diversity and inclusion with VR technology. A user should be able to walk in someone else's shoes and experience situations as if they were a different person by choosing a different profile from themselves.

This User Manual provides information on how to utilize EmpathyFlix, a platform to make immersive tools in VR.

This document will summarize:

- How to use this product
- Warnings when using this product
- How to troubleshoot problems a user may encounter while using this product
- How to create a simulation in EmpathyFlix
- The results of EmpathyFlix's effectiveness
- Possible future implementations

# 2 Overview

The problem statement for this project is that the solution should be "...an immersive experience to educate a wide range of people on implicit [and explicit] bias towards minority groups and improve inclusivity by experiencing life through their eyes." Bias and discrimination towards minorities has always been a prominent issue in North America, and when the pandemic happened, the tensions amongst the population exploded. Hate crimes and ignorance had become noticeable and frequent, so a possible solution is a tool for EDI training and education to increase a user's empathy to improve people's understanding of each other.

The fundamental needs of the user are:

- 1. A way to "walk in someone else's shoes" (raise awareness)
- 2. The tool lets the user to experience scenarios that partake about a certain topic where implicit bias was present
- 3. The user feels empathy for the virtual character as the user experiences different situations
- 4. The solution is relatively cheap and is \$50 or less
- 5. The solution has VR experiences that are 3D and as immersive as possible.
- 6. The tool can demonstrate negative and positive experiences that a virtual character goes through
- 7. Able to experience a character's thoughts and emotions while living through difficult situations
- 8. Education about microaggressions that minority groups experience
- 9. Learning about the challenges minority groups face, their own biases, and ways that they can spread awareness.
- 10. In the simulations, the user can walk around and interact with the virtual world around them
- 11. The VR experience needs to be accessible (to deaf, blind, etc. users)
- 12. Simulations are offered options in other languages
- 13. The program is easy of use (how easy is the UI/game, clear instructions)
- 14. The quality of the simulations is good (clear audio, good video quality, etc.)



Figure 1: EmpathyFlix Main Menu

EmpathyFlix is an expandable platform to create an abundance of EDI training tools instead of a singular simulation. A simple template is included as an example that future creators can follow, and a video recording is used in the template instead of 3D models. Using a video recording provides a faster and cheaper alternative for EDI tools while still maintaining higher immersivity and realism compared to 3D models.

When using EmpathyFlix, the user will first see the main menu with a VR headset, as shown in Figure 1, and the simulations available that they can select to experience using a VR controller. There is also an "About" and "Other Links" buttons. Selecting the first button, the user can read about EmpathyFlix, how to use it, and create their own EDI simulation. The other button allows the user to learn more about an issue covered in a simulation.

When the user selects a simulation, there will be a description of the experience, the button to start the simulation, and the exit button to leave and go back to the main menu. Depending on how a creator makes their simulation, the user interface will vary, but the most conventional method is through a user clicking options/ buttons in the simulation. The image below is a diagram that summarizes how EmpathyFlix should work.



Figure 2: Flowchart Summary of EmpathyFlix

The user will always be able to exit a simulation if they feel uncomfortable, which is located at the bottom righthand corner.

## 2.1 Cautions & Warnings

EmpathyFlix is used with a VR headset and controllers, so depending on a user's sensitivity, they may get motion sick or nauseous quickly. This especially important if a simulation has a lot of shaking or moving, which is ill-advised for this reason for most creators using this platform.

Furthermore, this product does use technology that can cause eye-strain if used excessively without proper breaks. It is advised for users to take breaks after 30 minutes of putting on the VR headset.

Also, because the goal of EmpathyFlix is to show the point of view of many discriminated minorities and groups, the topics of these simulations are sensitive and may trigger users. It is the responsibility of the users or their guardians to determine what they can experience since currently this product is designed for University of Ottawa students. So, all users should be of the appropriate age for its usage. Therefore, all users are strongly advised to read the descriptions of each simulation, and creators are strongly advised to appropriately warn users in the description if there is disturbing content in their simulation.

Although EmpathyFlix is not responsible for users and creators who ignore these warnings, poorly warned or inappropriate simulations will have the creators penalized and possibly banned depending on the severity and number of occurrences.

# **3** Getting started

First, the platform will be opened by clicking on its file, as shown below. The user does not need to have Unity to access or run this file.



Figure 3: Opening EmpathyFlix

Then the main menu will appear, as shown in Figure 1. Once a simulation/ experience is selected by the user, a description of the of the simulation will appear as shown in the figure below.

It's the morning of your job interview. You're an a teaching position at a new school. From wha your potential employers seemed thrilled to me previous experiences. There could have been position, yet you made it to the first round of fa of phone interviews. It almost seemed too easy All you have to do is go in there and convince to candidate they're going to get. (You will get two You meet your interviewer Selena at a coffee s You get settled. You notice she seems a bit off somehow you still need to make this interview (Make sure sound is turned on, and hit escape	tyous, but can t you gathered bet you, express hundreds, may ice to face inter y. This job wou them what you to options on the shop whom you f, not the smile work. Good lue key to end inter	't help to feel a bit excited. You app over the phone and email convers ising their interest in your skill sets vbe even thousands of applicants for vriews after passing through three ild fits you so well given your exper already believe, that you're the be e left and the right of the screen) i've spoken to on the phone many to y bright person you met on the pho ck! eraction at anytime)	lied to ations, from or this tise. st times. ne. Yet
	Start!	Mute	Exit

**Figure 4: Description of the Simulation** 

There will be a start button to begin the simulation, and this is shown in the figure below. There is also an exit button at the bottom righthand corner of figures 1 and 4.



**Figure 5: Scene from the Template Simulation** 

Pressing the exit button in at any point will take the user back to the main menu shown in Figure 1.

## 3.1 Configuration Considerations

There is a working build, however it does not run in VR mode unfortunately. This mode works perfectly on a screen, but no VR headset.

We do have an unbuilt version that can run a sample VR scene. To run it you need a Unity Editor version 2019.4.35f1 to run the unbuilt version. A VR system needs to be set up, with the Steam VR plugin installed on the computer. From there, the Unity Editor can be opened to run the program.

## **3.2** User Access Considerations

For users who have impaired hearing, subtitles are automatically offered in the simulation, and for visually impaired users, the experience has audio output. Motion (like point and click) is needed to interact with the platform, but interaction is not necessary to finish the experience. The platform is only in English for now.

### 3.3 Accessing/setting-up the System

For built version in non-VR mode, simply have The Interview 3.0 folder on your desktop and you'll be able to run the program.

For unbuilt VR mode, simply open Unity Editor version 2019.4.35f1, under projects tab click open, then find the EmpathyFlix folder, click select, when it appears in your projects tab, double click it to start the program.

## 3.4 System Organization & Navigation

The system starts with a main menu. It displays all experiences, and has a few other buttons like settings, and about info. The idea is to allow additional experiences to be added to the main menu, but a simple user-friendly method to do this has not been implemented yet. When accessing an experience, the steps are very straight forward, buttons with instructions present itself all along the experience.

## 3.5 Exiting the System

There will be an exit button located at the bottom right corner of the simulation, which will always stay in the same location. The user can click this button to exit a simulation, submenu, and the main menu, as shown in Figure 1 in the Overview section.

# 4 Using the System

### 4.1 The Interview – Sample scenario

The Interview 3.0 is a scenario that is meant to show how EmpathyFlix platform and template works. In this scenario, you are first greeted by a blue screen with words, showcasing the introduction and overview of what this scenario is to get the user up to date with what it's about. This screen also allows the user to pick what settings they prefer to run the encounter with. Then when the interview scenario starts, there are options respond to the interviewer (though voice implementation hasn't been done yet).

### 4.2 The Template

Now the idea of this specific product is set a platform with a template to allow the creation of more scenarios. The Interview 3.0 example scenario gives a good example of the various elements we have in our template. For this template there are two sections: The story effects, and the immersive effects.

#### 4.2.1 Template Story

The story must be written in a compelling, powerful, and relatable way. A bad story could lead to a mediocre experience in the simulation and could possibly lead to confusion. At the end of the day, story telling is more an artform than a science, therefore there is no single perfect formula to make an excellent story. But after doing some trial and error with survey feedback, here are a few pointers that could help make an immersive story.

- **First person scenario.** No telling in third person like "Thomas went to the grocery store". For the user to feel like they're the character, they need to be told the story from their perspective.
- **Ideally gender neutral.** In our example scenario, we tried as much as possible not to reveal the gender of the interviewee. This worked great as users automatically associated the gender of the interviewee with their real-life gender, another indication that the user is in the shoes of the character.
- **Based off a real-life scenario.** The best story for relatability is to keep it realistic. And the best way to find realistic stories is to be inspired by someone else's real life events.
- **Topic/Theme that is common/relatable.** Lastly it is best to pick an activity that can be relatable. For example, we pick an interview activity, as people have plenty of experience going to job interviews and getting rejected, with a fear of finding out the reasons for getting rejected might be absurd.
- **Keep it short.** Make sure the scenario is direct in what it's trying to hit. The entire scenario shouldn't take longer than 2-5 minutes.

#### 4.2.2 Template Immersion

A good story is great, but to fully get immersed, a few more details are needed:

- Audio: Make sure to have quality audio for the scene, especially for the main voices. Our example scenario is not a good example as we didn't have access to a professional microphone. Some background noises are very important to allow for more immersion. Our example scenario has an added coffee shop background noise, but make sure it's not overpowering the main voices.
- Video: The video is the most important as well as the most difficult. Quality video is crucial, as without it the user will have a hard time feeling immersed. Therefore, you'll want live action of either a real event or with actors. First decision will be to decide if 2D screen experience or a Stereoscopic experience is wanted.
  - **2D screen:** This experience isn't as immersive, as it will be played on a computer or TV screen. But it's also a lot easier to access since not many people have VR headsets. To record a good video, you can use any camera to record. Once you have your camera, you can record real live events, or get some actors to re-enact a scene.
  - **Stereoscopic 180 degrees:** Is a lot trickier, but much more immersive. There is a camera called the Vuze 180-degree stereoscopic camera that can record stereoscopic video for VR headsets. But other variants can be used as well. Make sure to keep the camera steady when recording.
- **Interaction:** Lastly the interaction bit is not as important, but it could assist with some immersion. Our example went with a simple dialogue choice pick, but ultimately whichever choice you choose doesn't affect the interaction.

Once all is done, all that's left is to plug it into the platform. Unfortunately, our current build doesn't have this implemented yet, but it would be something in the future.

# 5 Troubleshooting & Support

## 5.1 Error Messages or Behaviors

There is one error currently is that the PanoramicBeta shaders used to make the stereoscopic is outdated and therefore a build cannot be made with it. Therefore, the unbuilt version can run in VR, while the built version cannot.

## 5.2 Support

If there are any questions regarding how to do certain things, like add videos to Unity, etc. There are plenty of YouTube guides that explains these concepts. That is how we learned how to make this.

# 6 **Product Documentation**

We wished to make a system that could teach empathy to users. Therefore, we made a product called EmpathyFlix.

Our latest build consists of a sample scenario we made off a template we designed. We have three objects in this project: A built version, an unbuilt version, and a template. The built version of our latest build is for PC only. The unbuilt version is to allow further editing of the platform and to run the VR mode. The template is included in this product manual.

The platform builds were made using Unity Editor version 2019.4.35f1. It consists of a main menu, with options to start some of the scenarios. We've included a sample scenario to showcase how our template works.

The template explains the best way to make a story, and how to present it. The template is made through lots of research and surveys to determine what were the best attributes. It has two components: The story and the immersion.

## 6.1 Subsystem A: Narrative Content

#### 6.1.1 BOM (Bill of Materials)

The final cost of the subsystem and its production is \$0.00 CAD.

Item	Description	Unit	Quantity	Singular Item Cost (\$)	Total Cost (\$)	Link
Narrative of simulation	A narrative that can be originally created or be based off a real story	unit	1	0 (free but must give credit)	0 (free but must give credit)	<u>Link</u>
Survey	Must be created to tailor to the information that the creator wants to know about the effect of the storyline	videos	1-3	0 (free)	0 (free)	N/A

Table	3:	Bill	of	Materia	ls for	Subsystem A	
Labic	••	Dun .	UL.	1 Iuter Iu	10 101	Dubby Stelli 11	

#### 6.1.2 Equipment list

The equipment needed for this subsystem are:

- A narrative based on real story or a person from the minority group to be heavily involved with the narrative's production [3]
- A way to create and send the surveys to others (e.g. writing it by hand and sending it to testers, using a laptop to do it digitally, etc.)
- People who are willing to give feedback and test the narrative's immersive and empathyinducing abilities

#### 6.1.3 Instructions

First, a story must be created. It can either be entirely inspired by a certain person or minority group or based on true story. If it is the former, there will need to be multiple discussions or involvement of the person from that minority group to make sure that the narrative, to some degree, accurately represents the experiences of being in that minority group. If it is the latter, credit must be explicitly given to the person or group that the narrative is based on.

After creating the story, the narrative will be tested via a survey to ensure it provokes empathy within the reader. The number of people required to verify its effectiveness is determined by the simulator's creator, but it is highly recommended that the larger the number, the better. Sample survey questions to gauge the readers thoughts and emotions are listed below.

- Which character do you most identify with?
- Do you feel like a bystander to this situation?
- Why do you feel or do not feel like a bystander?
- How did you feel reading this story?
- Do you think this happens often nowadays?
- Were you aware these situations are still happening around you?
- Do you think you could have done something differently in this situation?

## 6.2 Subsystem B: Visual Simulation

#### 6.2.1 BOM (Bill of Materials)

The final cost of the subsystem and its production is \$0.00 CAD.

Table	4:	Bill	of	Materials	for	Subsystem B
1 4010	••	~	•••	1714CCI IMID	101	Subsystem D

Item	Description	Unit	Quantity	Singular Item Cost (\$)	Total Cost (\$)	Link
Unity text assets	Text assets like textMeshPro	unit	1	0 (free)	0 (free)	<u>Link</u>
180 stereoscopic footage of scenario	Can be obtained by finding existing recordings	videos	3-4	0 (free)	0 (free)	YouTube videos will have different links
Steam VR plugin	A plugin to make Unity work with VR	unit	1	Free if we can borrow one	Free if we can borrow one	<u>Link</u>

#### 6.2.2 Equipment list

The equipment needed for this subsystem are:

- Unity game engine
- A desktop or laptop to use the game engine
- Videos (can be filmed by a creator themselves or taken from a place like YouTube)
- Assets needed to make the simulation (e.g. videos, images, etc.)

#### 6.2.3 Instructions

First, the Unity game engine needs to be available on a computer. In Unity itself, there will be an assets folder that should be filled with the assets needed to make a simulation. Then, a creator will need to write the scripts or find scripts online for the visual assets to be implemented in the system. A script can be created in Unity by clicking the Assets window, going to create, and then selecting C# script. This is shown in the figure below.



Figure 6: Creating a Script in Unity

It is recommended that creators use a text editing software (like Visual Studios or Sublime) when creating a script to make it easier when troubleshooting the code. It is also recommended that creators test out if their visual elements can induce motion sickness via using a VR headset and having many different users try it out. There are also the recommendations in Cautions and Warnings section.

## 6.3 Subsystem C: Communicative Element

#### 6.3.1 BOM (Bill of Materials)

The final cost of the subsystem and its production is \$0.00 CAD.

#### Table 5: Bill of Materials for Subsystem C

Item	Description	Unit	Quantity	Singular	Total	Link
				Item Cost	Cost	
				(\$)	(\$)	

Product Documentation

Unity text assets	Text assets like textMeshPro	unit	1	0 (free)	0 (free)	<u>Link</u>
Audio clips	Can be obtained by finding existing recordings or can create them	unit	1-4	0 (free)	0 (free)	Different audio clips will have different links

#### 6.3.2 Equipment list

The equipment needed for this subsystem are:

- Unity game engine
- A desktop or laptop to use the game engine
- Audio assets (voice recordings, music clips, etc)
- Assets needed to make the simulation (text assets, scripts, etc.)
- Subsystem B is already created

#### 6.3.3 Instructions

First, Subsystem B must be created to start making Subsystem C. This is because Subsystem C is based on Subsystem B. Then the audio must be synced with the visuals, which can be done on a video editing software. This new file can then be imported into Unity as an asset.

The option buttons can be created by right clicking the Hierarchy window, going to UI, and then selecting Button. This is shown in the figure below.



Figure 7: Making a Button in Unity

Then when a script is created, it can be dragged onto an option button for the script to effect it. This step can be repeated as many times as necessary for the options.

## 6.4 Subsystem D: Main Menu

### 6.4.1 BOM (Bill of Materials)

The final cost of the subsystem and its production is \$0.00 CAD.

#### Table 6: Bill of Materials for Subsystem D

Item	Description	Unit	Quantity	Singular Item Cost (\$)	Total Cost (\$)	Link
Unity text assets	Text assets like textMeshPro	unit	1	0 (free)	0 (free)	<u>Link</u>

#### 6.4.2 Equipment list

The equipment needed for this subsystem are:

- Unity game engine
- A desktop or laptop to use the game engine
- Assets needed to make the simulation (e.g. text assets, scripts, etc.)

#### 6.4.3 Instructions

The buttons for the main menu are created the same way as the option buttons from Subsystem C. The process in Figure 6 should be followed.

## 6.5 Testing & Validation

Our third prototype was built to test our video simulation in Unity. The prototype was tested via a survey, which was sent to individuals prompting them to take part in the simulation, and then answer a few questions. We wanted to make sure that the audio, subtitles, and visuals were clear, as well as if our narrative still promoted empathy with the users. The results are listed below.

Are you a current student at the University of Ottawa?

8 responses





It is seen in Figure 8 that the majority, 75%, of people that took our survey were students at the University of Ottawa which was important as they are our target users.

What emotions did you feel after this experience? 8 responses



#### Figure 9: Emotions felt by users who took the Prototype 3 Survey

It is seen in Figure 9 that not only did users feel empathetic towards the interviewee, but also anger, frustration, and sadness.





# Figure 10: How strongly the users felt their emotions on a scale of 1 (not strong) to 10 (very strong) while partaking in Prototype 3 Survey

It is shown in Figure 10 on a scale of 1 to 10, where 10 is very strongly and 1 is not strongly, that the average is 7.9 which demonstrates that our narrative provoked strong emotions.

Then the users were asked "What specific parts of this experience made you feel the above emotions?" The responses are shown below.

#### **Product Documentation**

- "The interviewer's body language and facial expressions, tone of voice. seemed like the interviewer didn't care to give me a chance"
- "The interviewer didn't seem to care about my responses, and she didn't pay attention to me. she would be looking away most of the time and seemed careless"
- "The fact that I was looked down upon and my potential was disregarded due to my disability. Even the fact that I was continuously interrupted and not taken seriously"
- "When she underestimated my ability of doing a job at which I have more than 10-year experience"
- "When the interviewer began to belittle the interviewee's ability to handle her class, while being told that the interviewee had 10 years of experience"
- "The interview was a little frustrating as time for responding was short and the interviewer did not seem very invested in the interview. I do feel a bit bad for her though since it's clear she was not doing well however allowing that to impact an interview is less than stellar."

Listed above are direct quotes from users. It is clear that using video footage of real people allowed for clear facial and body language that provoked the feelings of anger, empathy, frustration, and sadness within our users throughout the simulation.



How immersed did you feel in this experience? 8 responses

# Figure 11: How immersed users felt on a scale of 1 (not immersed) to 10 (very immersed) while partaking in Prototype 3 Survey

Figure 11 demonstrates on a scale of 1 to 10, where 10 is very immersed and 1 is not immersed, that the average is 6.8 which demonstrates that when users have access to a VR headset, the immersion will increase, rather then watching a 2D video.

Was the audio clear and easy to understand? <sup>8</sup> responses



Figure 12: How clear users found the audio in Prototype 3



Figure 13: How easily the users could read the subtitles in Prototype 3

As shown in Figure 12 and Figure 13, that overall, the subtitles and audio were clear to the users.

# 7 Conclusions and Recommendations for Future Work

If given more time to work on this project, there would be a variety of additional features added. Firstly, given that many University of Ottawa students, and Canadians in general, speak French, the template simulation would have also been available in French. We would have also incorporated different points of views within the simulation, for example, a bystander that could intervene during the interview, or the perspective of the interviewer. Additional templates depicting true stories of other minority groups such as (race, gender, religion, etc) would have also been included. It is important to note that our interview simulation could also be expanded to other minority groups as it is a relatable story not exclusive to individuals using wheelchairs.

# 8 Bibliography

- [1] H. Lowood, "Virtual reality," *Encyclopædia Britannica*. [Online]. Available: https://www.britannica.com/technology/virtual-reality. [Accessed: 17-Apr-2022].
- [2] L. Rosencrance, "What are diversity, Equity and Inclusion (Dei)?," SearchHRSoftware, 02-Mar-2021. [Online]. Available: https://www.techtarget.com/searchhrsoftware/definition/diversity-equity-and-inclusion-DEI#:~:text=Diversity%2C%20equity%20and%20inclusion%20(DEI)%20is%20a%20term%20used,religions%2C%20cultures%20and%20sexual%20orientations. [Accessed: 17-Apr-2022].
- [3] D. Manderson, "Does my wheelchair make you uncomfortable? how my disability may have cost me a job.," USA Today, 08-Oct-2018. [Online]. Available: https://www.usatoday.com/story/opinion/voices/2018/10/08/disability-access-job-interviewteacher-discrimination-ada-ableism-accommodation-column/1501095002/. [Accessed: 17-Apr-2022].

# **9** APPENDICES

# **APPENDIX I: Design Files**

Summarize the relationship of this document to other relevant documents. Provide identifying information for all documents used to arrive at and/or referenced within this document (e.g., related and/or companion documents, prerequisite documents, relevant technical documentation, etc.).

Include all design files in MakerRepo. Also provide the MakerRepo link to your project.

Document Name	Document Location and/or URL	Issuance Date
Deliverable A:	Deliverable A: Team Contract	April, 17, 2022
Team Contract	(amazonaws.com)	
Deliverable B:	Deliverable B: Needs Identification and	April, 17, 2022
Needs	Problem Statement (amazonaws.com)	
Identification and		
Problem		
Statement		
Deliverable C:	Deliverable C: Design Criteria and Target	April, 17, 2022
Design Criteria	Specifications (amazonaws.com)	
and Target		
Specifications		
Deliverable D:	Deliverable D: Conceptual Design	April, 17, 2022
Conceptual	(amazonaws.com)	
Design		

#### Table 7: Referenced Documents

Deliverable E -	Deliverable E - Project Schedule and Cost	April, 17, 2022
Project Schedule	(amazonaws.com)	
and Cost		
Deliverable F:	Deliverable F: Customer Feedback and	April, 17, 2022
Customer	Prototype I (amazonaws.com)	
Feedback and		
Prototype I		
Client meet 3	Client meet 3 pitch Slideshow	April, 17, 2022
Pitch Slideshow	(amazonaws.com)	
Deliverable G:	Deliverable G: User Feedback and	April, 17, 2022
User Feedback	Prototype 2 (amazonaws.com)	
and Prototype 2		
Deliverable H:	Deliverable H: User Feedback and	April, 17, 2022
User Feedback	Prototype 3 (amazonaws.com)	
and Prototype 3		
Design Day	Design Day Slideshow (amazonaws.com)	April, 17, 2022
Slideshow		
Deliverable J:	Deliverable J: Final Presentation	April, 17, 2022
Final	Slideshow (amazonaws.com)	
Presentation		
Slideshow		

The Interview 3.0	MakerRepo Project Files	April, 17, 2022
Zip		
MakerRepo Link	GNG1103-F32-Immersive Experience	April, 17, 2022
	Tool   MakerRepo (makerepo.com)	