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Computer Graphics 2, Comp 4280

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Project: Short Report

- OLD TITLE: Draw, Produce, Interact
- NEW TITLE: Spawn, Switch, Interact

Note: I had to change my project concept “slightly” for various reasons which will be further explained in my presentation + presentation slides (which can be seen through my GitHub)

1. What My Project Attempts to Solve:

- My AR interactive shape project app was originally just going to be a fun interactive app that anyone can use. To be honest, there really was no problem I was trying to solve when I first came up with this idea. However as time goes on, I noticed that my interactive AR shape app can potentially be used to help young audiences learn about shapes through fun interactions on their tablets or mobile phones whenever and wherever they want.
- Many parents nowadays let their kids use tablets and mobile phones to watch videos and learn about things. Since many young kids use mobile devices now, I found it important to create my app on mobile devices.

2. Project Goal:

- Mobile AR Interactions have become popular in computer graphics lately. Users want a sense of immersion when interacting with apps, so I wanted to create an application on mobile devices, primarily phones and tablets, where users are able to draw, create, and interact with the shape of their choice whenever and wherever they are. Although the app can be used by anyone, it is aimed more towards the young audiences since it can be a fun new learning experience for them.
- Think something a bit similar to Pokemon GO. The camera on my app shows the real life environment. Then users use their fingers to draw any shape they want on the screen. Once a shape is drawn, the app attempts to identify it then converts it from 2D to 3D. The 3D shape can then be interacted through multiple ways, it can be rotated, dragged around, and would have had physics applied to them as well.

3. Alternative Approach to Solving My Problem:

- An interactive shape application for kids can be created on other devices like desktops, laptops, and virtual reality. Desktop and laptops are simple and would allow kids to draw and interact with shapes through a mouse. Virtual Reality takes it another step further and lets users interact and draw shape through a virtual space.

4. Chosen Approach + Why I Chose It

- I chose to stick to my original idea and decide to still create the shape interactive app on mobile phones and tablets. This is because mobile devices are portable and everyone practically has one. Once again my goal is create a shape interactive app where it can be used anywhere, anytime without the need for internet, and mobile devices (mainly mobile phone and tablets) fit this description very well. Plus with the addition of AR on mobile phones, it would make the interactive more fun and engaging, especially for kids.
- An app I am making can obviously be done on desktops and VR, but there are obviously some limitations to making it on those platforms. Desktop for one requires the internet. It also lacks immersive interaction since users are only using a mouse to interact with the shapes. This can sometimes discourage young audiences from focusing and learning. Virtual reality on the other hand requires expensive set ups and not everyone has one. Plus virtual spaces are limited and only allow users to interact and do things at a certain spot.