# **Written Response:**

#### 2. A.

My innovation of choice, reflected in my artifact, is the innovation of AR, or augmented reality. Augmented reality is the projection of virtual objects into the real world. My artifact has a basic diagram of how AR functions in regards to its basic components. Below the diagram, I include images of existing programs that utilize AR, and descriptions of the programs' practical use of AR. Further below, the artifact show the other practical uses of augmented reality and their different real-world applications (recreation, business etc.).

#### 2. B.

I used the application Google Drawings to create my artifact. I used images of the parts of an iPhone to create a diagram on how AR functions. Below, I show the real world applications of AR by displaying a screenshots of programs that utilize AR accompanied by text (with color contrasting the background) Below that, I include additional applications that AR can accomplish.

### 2. C.

Although the exact date that augmented reality software was created is unknown, the term "augmented reality" was coined in the 1990's. Since then, the popularity of AR software applications has increased dramatically. The wild popularity of Pokemon GO in 2016 can attest to the fact that AR can greatly augment an app's immersion. An increased feeling of immersion is one of the factors that propelled the popularity of Pokemon GO. The most beneficial effect of this innovation is a heightened feeling of realism of interactions between the virtual and the real world. One potentially negative effect of this innovation is that heightened sense of realism. This virtual realism could cause those who interact with this technology for the purpose of social interaction to lose touch regarding what is real and what is fictitious.

# 2. D.

AR technology takes the input from a camera, and sends the data to a processor containing the AR software. From there, the software discerns spatial cues from the image such as horizon lines or right angles. Then, the 3D object that the AR program is meant to display is superimposed on top of the image and positioned to appear in an upright position. Finally, the completed image is sent to a display, whether it be a monitor or smart phone screen.

## 2. E.

- 1. http://www.augment.com/how-augmented-reality-works/
- 2. <a href="https://www.darfdesign.com/arki.html">https://www.darfdesign.com/arki.html</a>
- 3. <a href="http://www.ikea.com/ms/en">http://www.ikea.com/ms/en</a> US/rooms ideas/splashplanners new.html
- 4. <a href="https://www.tractica.com/newsroom/press-releases/mobile-augmented-reality-app-downloads-to-reach-1-2-billion-annually-by-2019/">https://www.tractica.com/newsroom/press-releases/mobile-augmented-reality-app-downloads-to-reach-1-2-billion-annually-by-2019/</a>
- 5. <a href="https://www.tractica.com/newsroom/press-releases/mobile-augmented-reality-market-to-reach-1-9-billion-unique-monthly-active-users-by-2022-according-to-tractica/">https://www.tractica.com/newsroom/press-releases/mobile-augmented-reality-market-to-reach-1-9-billion-unique-monthly-active-users-by-2022-according-to-tractica/</a>