Explore — Impact of Computing Innovations Written Response Submission Template

Submission Requirements

2. Written Responses

Submit one PDF document in which you respond directly to each prompt. Clearly label your responses **2a–2e in order.** Your responses must provide evidence of the extensive knowledge you have developed about your chosen computing innovation and its impact(s). Write your responses so they would be understandable to someone who is not familiar with the computing innovation. Include citations, as applicable, within your written responses. **Your response to the first four prompts (2a–2d) combined must not exceed 700 words.**

Computational Artifact

2a. Provide information on your computing innovation and computational artifact.
- Name the computing innovation that is represented by your computational artifact.
- Describe the computing innovation's intended purpose and function.
- Describe how your computational artifact illustrates, represents or explains the computing innovation's intended purpose, its function or its effect.

(Approximately 100 words)

Insert response for 2a in the text box below.

The technological innovation that I chose was Android Auto. Android Auto is a new program designed by google for cars and now native to android phones [1] to be able to translate the features used on someones android phone to the car's in dash head unit. Now the information is not just mirrored to the car, the program takes the 3 big things that most people want to use their phones for in the car, Phone calls, navigation from google maps, and streaming music from music services like pandora and google play music and translates them in a way that it can work with minimal distraction on a car's display. The artifact illustrates it purpose by showcasing that all you have to do with android auto is cable your phone to the car and the program will allow you to put your phone's maps, music, and phone capabilities in the in dash screen.

2b. Describe your development process, explicitly identifying the computing tools and techniques you used to create your artifact. Your description must be detailed enough so that a person unfamiliar with those tools and techniques will understand your process.

(Approximately 100 words)

Insert response for 2b in the text box below.

The development process was a rather straight forward process. I started off with an image found online showcasing the technology in a 2015 Hyundai Sonata. I then took the image and put it into adobe photoshop where I put in a brief explanation of the innovation into the photo. Then I used photoshop's tool to add a backshadow on the text to give a more prominent look so it's easier on the reader to see. I then exported the photo as a png.

Computing Innovation

2c. Explain at least one beneficial effect and at least one harmful effect the computing innovation has had, or has the potential to have, on society, economy, or culture.

(Approximately 250 words)

Insert response for 2c in the text box below.

With any technology, there are some positives and negatives to it. Android auto is no exception. With the positives, Android auto has the ability to cut down on driver distraction due to the fact that the device that people are notorious for using while driving, is no longer being juggled in someone's hand and is now on a car screen with voice controls used from the voice button on the steering wheel[4], that can help reduce distraction in the car and prevent distracted driving accidents. Also, the innovation has the ability to put an end to the issue with cars infotainment screens of today which are updates. By utilizing the cloud being able to have a constantly updated navigation system and app connected system without the need of having to go to the dealer and be charged for the service of updating a car which can be 100's of dollars to do[3]. But while there are many positives to something, there are some negatives that lurk within. One is that the program depending on the vehicle you have can be cumbersome to those not familiar with there car system. In the case of many german cars such as mercedes benz and audi, Those vehicles don't have touch screen, which Android auto is optimized for and will need to be controlled through the turn, click, and kick controllers of the Mercedes COMAND system and Audi MMI system.[2].

2d. Using specific details, describe:

● The data your innovation uses.
● How the innovation consumes (as input), produces (as output), and/or transforms data.
● At least one data storage concern, data privacy concern, or data security concern directly related to the computing innovation.

(Approximately 250 words)

Insert response for 2d in the text box below.

The data that Android auto is using, is the data from your smartphone. The program is able to connect with your phone and import the data from sources like google maps, your phone book, streaming apps, and notifications that show up on the phone and output to the screen in the car. There have been security concerns not from the program itself, but the potential for hackers to get control of the program and possibly get control of the car like what happened with a chrysler vehicle and two hackers were able to fully control the car from miles away.[5] There have also been some privacy concerns about the use of the program having access to location tracking which can broadcast where you are at any given time from having your phone in the car.

References

2e. Provide a list of at least three online or print sources used to create your computational artifact and/or support your responses to the prompts provided in this performance task.

● At least two of the sources must have been created after the end of the previous academic year.
● For each online source, include the permanent URL. Identify the author, title, source, the date you retrieved the source, and, if possible, the date the reference was written or posted.
● For each print source, include the author, title of excerpt/article and magazine or book, page number(s), publisher, and date of publication.
● If you include an interview source, include the name of the person you interviewed, the date on which the interview occurred, and the person's position in the field.
● Include citations for the sources you used, and number each source accordingly.
● Each source must be relevant, credible, and easily accessed.

(Note: No word count limit for this answer)

Insert response for 2e in the text box below.

[1]Ziegler, Chris. "You Don't Need an Android Auto-compatible Car to Use Android Auto Anymore." *The Verge*. The Verge, 18 May 2016. Web. 10 Jan. 2017.
http://www.theverge.com/2016/5/18/11698274/android-auto-app-update-phone-dash-google-io-2016

[2]Reports, Consumer. "Apple CarPlay and Android Auto: Pros and Cons." *Consumer Reports*. N.p., n.d. Web. 12 Jan. 2017.
http://www.consumerreports.org/cars-apple-carplay-android-auto-car-infotainment-apps/

[3]"Should You Update Your In-Car Nav System for the Holidays?" *Consumer Reports*. N.p., 4 Dec. 2015. Web. 12 Jan. 2017.
http://www.consumerreports.org/cro/news/2015/12/should-you-update-your-in-car-nav-system-for-t

[4]CNETTV. "CNET On Cars - Road to the Future: Android Auto Launches." *YouTube*. YouTube, 16 June 2015. Web. 19 Jan. 2017.
https://www.youtube.com/watch?v=C9J-0AXhquo&t=170s

[5]"Hackers Remotely Kill a Jeep on the Highway-With Me in It." *Wired*. Conde Nast, n.d. Web. 19 Jan. 2017.
https://www.wired.com/2015/07/hackers-remotely-kill-jeep-highway/