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.

My Computational Artifact is about the Self driving car Car and it explains the purpose and the function of the Self Driving Car. The purpose of the Self Driving Car is to make the roads safer for people that needs to get to their destinations but are unable to drive. The function to help achieve the purpose is by using sensors and cameras to see certain type of objects that might be in the way and The Self Driving Car tries to use the best solution to get to the destination with the safest route.
(Word Count 95)

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.

In my Artifact i use Google slides and found pictures from a few Google images. Images
(1) https://www.wired.com/images_blogs/autopia/2014/01/01-bmw-autonomous-drift.jpg
The picture of the Self Driving Car
(2)http://cdn.citylab.com/media/img/citylab/legacy/2014/04/27/screenshot_right%20turn.png
The self driving car Point of View
(3 http://newsroom.aaa.com/wp-content/uploads/2015/03/Teens-Crash-Causation.jpg The graph or statistics of the Driving issues
After i found the images i went and found information about the Self-Driving Car and put it into the text box to explain the purpose of the self-driving car.
(106 words)

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.

One beneficial effect it has on society is that the Self Driving Car makes the roads more safe for people who can't necessarily drive for example a Drunk Person and they are unable to drive but still needs to get home on their own so they will use a autonomous car or computer's software to drive them to their destinations. Another reason why Self Driving Car is great/beneficial for society, is that .this Car can reduce the amount of deaths and injuries per year, most of these accidents are caused by distractions, nearly 30,000 people died and 2 million people have been injured and 94% of those accidents are from human error(3). A harmful impact it has on economy is that the car might have failures in weather conditions for example heavy rain or hail. The car might crash in extreme weather conditions and when it does crash the driver will have to pay for any expenses that the car might have cost. Another negative effect on society is that this car is relying on an accurate mapping system through GPS so if the software for GPS don't see a road the car will not go through the road to go to your destination and will waste even more time. Adding on to the GPS system to go to you destinations the reason why this is harmful is that GPS is not always accurate and sometimes take you to the wrong destinations or somewhere else.
(248 word count)

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.

(2) The autonomous car or self driving car uses data, for example cameras and sensors to inspect the current situations and how the car would proceed to come up with a solution to be safe but at the same time get to the driver's destination also the camera can show you the surrounding cars if you driving manualing on the dashboard. In addition they is more inputs and outputs to the self driving car, (2)The lidar unit on top of the car and it takes the images on the road the way it gets this information is that there is a spinning laser to gain the photos. Then sends the photos to the Main computer,usually in the trunk, and analyze the photos,(2) compare it to the stored map to access current conditions so you can get to your destination safest and shortest in the possible time. A data storage concern is that you have to maintain your Hard Drive and make sure that there is enough storage to use Self-Driving mode because it uses photos and videos and sends it to the Main Computer and if not maintaining your own car, the self-driving mode will see signs of failure and errors could cause a person's life or end up injured. (213 word count)
Total Word COUNT:662

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. http://www.yaleclimateconnections.org/2016/04/electric-cars-pros-cons-and-unknowables/

Author: Bud Ward. "Self-Driving Cars: Pros and Cons, and Unknowables," Sources: U. of Michigan Transportation Research Institute. Date Posted: Apr, 4, 2016, Date Viewed: Jan, 20 ,2017

2. http://www.nytimes.com/interactive/2016/12/14/technology/how-self-driving-cars-work.html Author: Guilbert Gates, Kevin Granville,Anjali Singhvi, and Karl Russel, "When Cars Drive Themselves." Sources:Tesla, General Motors, Ford, Fiat Chrysler, Honda, Volvo, Date posted: Dec, 14, 2016, Date viewed: Jan, 3, 2017. Date Viewed: Jan, 20, 2017

3. https://www.youtube.com/watch?v=WBjY3QGNdAw ,Author Veritasium/Derek Muller, "The Real Moral Dilemma of Self-Driving Cars", Sources:(BMW, Ted-Ed, BBC Newsnight), , Date posted: Jan, 19, 2017 , Date viewed: Jan, 20, 2017