Question 1:

As a GT student, I use Udacity a lot both on my computer and mobile device. From the perspective of a processor, I am quite satisfied with the interface. This is because the interface enables me to learn by watching the videos at my convenience. In addition, my basic expectations such as the ability to fast forward, rewind the videos are met. I can also watch them in any sequence I want and can keep track of percentage completed. Moreover, I can log in and log out of the interface as expected, barring any technical glitches. The interface also provides a catalog of the courses available that I can search through easily. The time taken for key tasks such as load, log in, log out, navigate measure up comparatively to similar interfaces like Udemy, Coursera, Edx.

From the perspective of the predictor I expect the interface to be available all the time, except for any pre-scheduled maintenance. Moreover, accessing the interface shouldn't consume significant hardware resources – i.e. having the interface open with a video running shouldn't prevent me from accessing the web browser, MS Office or other such applications. I also want to be able to watch the videos in full screen model seamlessly which the interface facilities well.

From a processor point of view, I'd like to have live support available all the time. This is important to address key questions without having to send an email and wait 24 hours for a response. To add, the opportunity to talk to someone presents a good customer focused business model. As a predictor, I would expect the videos to play continuously even in full screen mode. However, I have noticed that the size of the screen reverts back to a reduced size from full screen when the videos are played automatically. In addition, some course content displays the total amount of video time and the remaining time left while some don't display such information. The interface should automatically accommodate this feature as it will help me plan ahead the time required to watch the videos. Moreover, I'd love to be able to make notes or bookmark some videos as I watch them, because the primary goal is to learn and not to just watch the videos, so any feature that facilitates learning should be available.

Question 2:

As an active iPhone user I enjoy taking pictures using my phone. I have a 3.5 year old son and really can't take enough videos and pictures of his everyday antics. However, my biggest challenge is by the time I find my phone, type my password, open the photo app, select video or photo the moment I wanted to capture is long gone. I wish the photo app would just open and start taking videos or pictures with me just picking up the phone and uttering the words "photo" or "video" appropriately. I expect the phone to recognize my voice thus eliminating the need to type any password. In another case, I use my phone to take pictures of receipts or other documents that I need stored temporarily. I have always been frustrated that my smartphone doesn't differentiate between receipts, people, sceneries and things because had it known the difference I wouldn't have to go through my entire album to find the receipt of a purchase I made a few months ago while on vacation. I also use my phone to take pictures of the white board after a meeting or a brain storming session at work. Sometimes I take pictures of notes that I write on paper while watching a video at Udacity. I really don't want my app to treat the picture of a handwriting the same way as a picture of someone or a thing. I want my app to distinguish between what's memory and utilitarian. To do so it needs to recognize different things as they are.

I also like to take pictures and videos at leisure while strolling through the park. For example, while shooting videos in a public park I have realized that my videos capture unnecessary background noise not related to the video itself, maybe I am just bad in shooting videos. In learning about Machine Learning, I have seen that such technology can identify and differentiate the noise related to the event being captured from everything else. May be my photo app could capture the sound only related to my event using such technology. The overall point here is that the task is taking a picture or video using my iPhone, however the context is different hence the limitations are also.

Question 3:

Gulf of Execution:

My goal here is to submit the assignment. Canvas does enable me to set this goal effectively in terms of the interface by displaying "Submit Assignment" under the assignment section. Once I click the submit button I see multiple options to upload my file. This helps me understand what actions are possible. However, with two "Dropbox" options it is not clear if they are indeed two different choices or referring to the same. Also, it is not clear what actions should be undertaken if a file has already been uploaded – as there is no staging environment, it seems redundant to submit a file that has already been submitted. Also, when I selected a doc file to upload I received an error message appropriately. Once I get past this step, executing my action seems straightforward.

Gulf of Evaluation:

Once I click "submit assignment" I can see the confirmation that includes the date and time of my submission. This output from the interface is helpful for someone who doesn't know what to expect. However, it would have been more useful to see this message right near where the file was submitted and not somewhere at the top right of the screen. The next step is to interpret the output message from the interface. A logical expectation is to check if the uploaded document is exactly the same as the original. However, evaluating this requires to download the document again. A more user friendly solution would be to display an image of the uploaded document so that user can just eyeball the picture to make sure the uploaded document is the same as the original. Furthermore, it would be beneficial to display a message that the assignment was submitted near the name of the assignment under upcoming assignments section. This would eliminate the need to have to go back within each assignment to see if it was submitted. To add, it would also help to receive an email confirmation that the assignment was submitted. This would serve as a backup in case Canvas goes through technical glitches.

Question 4:

I have an old fashioned electric cooking range at home that has 4 burners. There is only one red light to indicate if the cooking range is on. This light turns on irrespective of the number of burners that are on - one burner, two burners etc... To add to the confusion, it is also not clear which knob controls which burner. As bad of a cook I am, I often place my vessel for cooking on one burner and turn on another burner without realizing it. I usually find out that I have made a mistake the hard way – touching the one

that is on accidentally, seeing some light smoke coming from the burner because it is on for too long without any vessel on it, placing my vegetable cutting board on the burner that is on and realizing that it is getting burnt, patiently waiting for a long time to find out that my pasta is not getting cooked at all. The feedback that I get from the system is not useful and by the time I evaluate the output from the system to take any corrective action it is often too late.

I have a nice coffee maker that seems to be a smart one. If I turn that on without putting a filter there is an indicator that turns red indicating that the filter is missing. Similarly, if I try to set it to 2-4 cups without adding water, the corresponding light near the water tank turns red signaling that something is wrong. Moreover, if I pull my coffee mug mid-way before the brew is complete the machine would temporarily stop which is much better than other machines which would just keep brewing the coffee creating a mess on the counter top. Furthermore, the machine turns itself off after the coffee is brewed thereby conserving energy and I can clearly see this with the lights turning off. This design clearly demonstrates the importance of right feedback for every task that the user undertakes.

If the cooking range had one light for each burner, I could easily see which one is on and which one is not. Also, if a burner is on for a specific amount of time without being used I would expect the system to alarm the user with some beeps.