Assignment P5

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Question 1- OMSCS

Positive Effects

Georgia Tech OMSCS **asynchronous** style of teaching and methods has given **flexibility** to a vast majority of people who can continue to study while working in their busy schedule. It has given an opportunity to the people who are financially dependent on their family. Now with OMSCS you can do your assignments, watch lecture whenever you want in your free time without hampering your professional life, especially for the people who have families to support. The asynchronous structure allows you to schedule your assignments and your study pace at your ease, which has honestly opened the door to pursue higher studies more approachable and possible for many students for whom these options were not available previously.

Negative Effects

One of the biggest disadvantage while pursuing this course is the **lack of human social interaction**, which I did not consider before signing up for this program. Though you seem to have the flexibility to study in your own pace, and do assignments and quizzes when you want, but can't really physically interact with your fellow classmates, discuss problems with them, have a whiteboard session or brainstorm some ideas. Yes, we have online platforms like piazza, slack forum to interact with the class, but it really lacks social interactions because now most of my free hours in which I used to hang out socially with my friends before in my traditional on-campus degree, is now consumed in studying for this degree. I still feel like that piazza and slack cannot replace human social interactions.

Redesign

In order to preserve the asynchronous style of the program along with tackling the negative effects of lack of social interaction I propose the following points as a solution:

- Design an application or interface where you can watch lectures along with your fellow students by scheduling or booking the lecture. It can be a VR application like the one Dr. Joyner has proposed a couple of times in the class. This allows you to collaborate more socially. You can attend classes with other students who are local to your time zones.
- Set Up weekly meeting on topics like reflections on the topic and arrange a video conference call to interact verbally, rather than textual interactions.
- Design courses in a way to have at least one group project where you can form local groups or cross groups. It gives an opportunity to collaborate more socially.
- Arrange hackathons or more social collaborative short programs where students who wish can collaborate, even if it is just for fun!

Question 2- Political Motivations on Design

Area of study

Automation is one of the big waves in the industry currently making big changes based on the political motivations on design, and biggest one of them reducing the manual labor to add profit and reduce labor costs. One of the places you can see its effect is in the Uber, Lyft or Gojack. These application is used for booking the cab for rentals, shared cabs, and autos for your daily commutes to any places you would like to go. Local authorities have laws to govern the regulations for these services in the parts of the states and these laws have been challenged in many places from time to time.

Stakeholders and Motivations impacting Design

The **first stakeholder** is the **person himself** booking the cab using the Uber. The primary task for the stakeholder here is to book the cab using the Uber or Lyft

application interface and wait for the cab's arrival so that he can commute to the place for which he made the booking. This provides a **motivation** for **ease of use and comfort** to the user when he is visiting any new places as now he has not to worry about locating taxis, negotiating rates and the type of service to anticipate. This motivation has caused the design to allow many changes like in many cities the airport authorities do not allow the taxi or cabs to enter, so now they have a special option in the Uber as "**Airport Taxi",** which allow the user to book a cab through the uber and take it to the airport.

Second stakeholder here is the **Uber** itself who is operating invisibly here by providing the first stakeholder an interface to book the cab. The motivation of this stakeholder here to act as **an intermediary and get profits from booking**. The stakeholder here provides the user with available options and rate to choose from and act as an intermediary between the first stakeholder and the cab driver. In this way, Uber or Lyft charge for the service to book a cab for you and contact the driver and make his cab available at your doorstep. Now, these motivations have been challenged by local authorities because the charges and rates in many places are not in accord with the standards, and in addition to that, it has caused great disruption and pain to the local independent taxi drivers as Uber or Lyft has taken the business away from them. Many Asian places like Bali, Thailand there are parts where you are not allowed to take the Uber or Lyft by the local government, rather you can only take the local taxis.

The third stakeholder here is the **cab driver** itself, who is going to ride the cab for the first stakeholder and drives him to the destination. The **motivation** for the third stakeholder is to **act as a contractor and get more profits from more bookings**. The stakeholder accepts the booking incoming from the second stakeholder which is Uber or Lyft and follows the instructions or map provided by the second stakeholder to pick up the first stakeholder. In this way, a cab driver or the third stakeholder gets fast booking available to him throughout the day with lots of incentives involved. **To help maintain this motivation** the design is helping drivers to get them booking very quickly and it also has many schemes to motivate the driver to quickly complete as many rides as possible. This has been achieved by

the good design of the interface to book a cab and make schemes like getting additional 10 per profit after completing 10 rides to the driver. But in my personal experience, I have seen that it has caused a great sense of disorders and anxieties among the driver. They have to work 24 hours to get the bonus and complete many rides which make the ride prone to accidents.

Question 3- Piazza Redesign

If I have to redesign some basic functionalities on the piazza than I would like to change the way expand and collapse of feed works. Consider figure 1 for the current system on how the feed collapses and expand works.

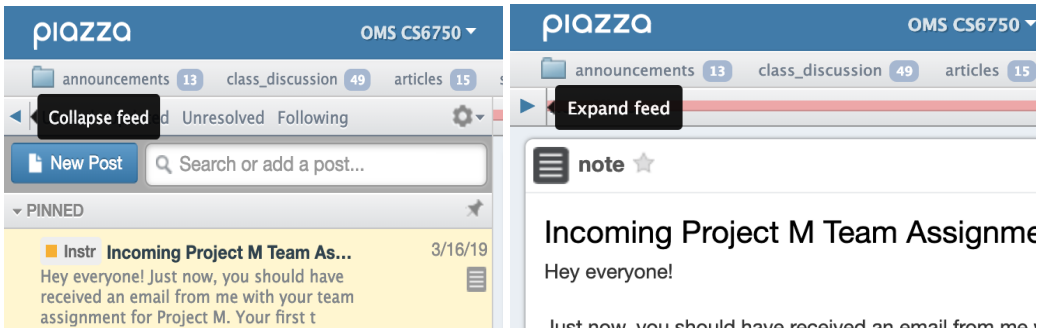

Figure 1: current interface where Collapse(left) and Expand(right) feed works.

The motivation to redesign this simple part is **first** that this feature is there but I don't suppose many people use it as it is first hard to find on the screen. **Secondly**, most of the time you do not browse your feed and read simultaneously. So it's good to have something using which you can quickly fo full screen and come back while reading a post.

Proposed Redesign:

I would add a small button to go expand to full screen for the feed here, which will allow me to browse the feeds like I am browsing my emails like as shown in figure 2

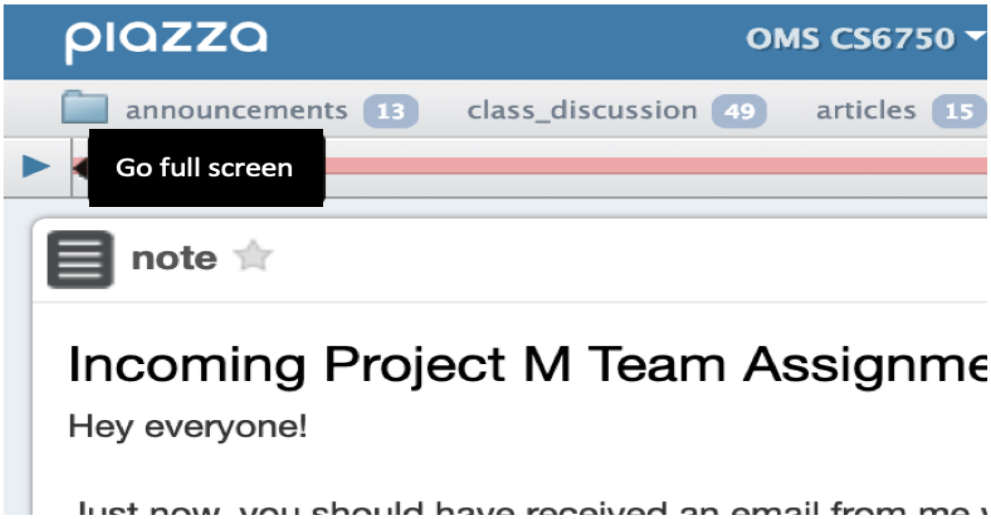

Figure 2: Redesign the feed option to full-screen mode to browse like emails

Design principles benefits

Ease and comfort: The first motivation here is to provide student ease and comfort while browsing the posts and reading those posts. The current design of the search functionality which works only within the feed, and also the features like tags, private or public post which are all congested at one place, it is imperative to have a full-screen mode where the user has the ease to browse through the feeds only. It will give the user a broader view of each feed and sense of comfort.

Flexibility: By providing the full-screen mode the user will have the flexibility to switch between the reading of a post and browsing the feeds. The current system limits and make it congested feeds while browsing thus lacking the flexibility needed for the user.

Constraints: By limiting the options to collapse and expand fully we are limiting the user behavior to operate in a standard way rather than customizing the screen resize manually by dragging, which will add a significant amount of gulf of execution.

Tolerance: While the user is free to browse through the feeds, there may be chances where the user intentionally does not want and by mistake switches to one of the mode, so there should be a fallback option always which resets the screen to

the default behavior which is the traditional one, which gives tolerance to the design to fall back to default.

Discoverability: The redesign will adjust the screen to full size where you can browse through all your feeds, thereby making all the other features like tags, private post or public post, number of updates, and the subject of a post more discoverable. Currently, the feed area gets to congested with a lot of information. Making all the components discoverable is one of the main benefits of this redesign.

Question 4- CHI paper

"Gender Recognition or Gender Reductionism? The Social Implications of Automatic Gender Recognition Systems"[1]

This paper is selected as one of the CHI best 2018 papers.

Summary

This paper describes the implication of the AGR(Automated Gender Recognition) technology using facial recognition or body recognition like microsoft facial apis. The paper is specifically interested in identifying how AGR can have social and ethical implication if a gender of a person is identified wrongly by the AGR. The paper did a participant study for 10 transgender people and selected them using a survey from facebook. 7 of the participant were background and 3 of them are from the technological background. They then interviewed all the participants about the way they feel about the AGR and what it meant to them, and the following were their findings:

- All the feedback and response were overall highly negative about the use of the AGR to identify the gender.
- Some of the participants feel that if a computer mis identifies their gender, then it only the problem as now they feel harassed in the virtual world as well, not only in the real world.

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1 https://www.researchgate.net/publication/324670607_Gender_Recognition_or_Gender_Reductionism_The_Social_Implications_of_Embedded_Gender_Recognition_Systems

- To them identifying gender is a matter to identify the pronoun and the AGR have no right to first go to identify without the consent of the people to autodetect
- Even the technologist trans replied that they feel that there are more negative impacts than positive because even the body or facial recognition is created by some human and who he is to judge or decide what facial characters correspond to what gender.

Finally, there were some suggestions from the paper to improve the AGR:

- First, do not auto detect, rather ask people to identify their gender on their own.
- Inform if and how they might be gendered and let them opt out.
- Incorporate gender diversity when designing systems.

Why I choose this topic and what I find Interesting

I choose this topic because of the recent law and regulation passed by the government in various countries including India having a significant population to recognize all sorts of gender in the society and make all genders recognizable. So it was interesting for me to know how AGR actually going to detect the genders because now we have binary and nonbinary genders based on facial recognition and whether it is something which should be allowed to the AGR, because as a matter of fact, I agree that gender is needed for pronoun and nothing else, but the business needs like identifying or auto detecting gender for marketing advertisements and all makes things complicated at the social and ethical level for everyone. And that's exactly what I find in this paper, that it is not at all appropriate to judge or misidentify gender of a person and there is no need at all to identify the gender by algorithms except the business needs.