Assignment P5

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1 QUESTION 1-COMPUTER SCIENCE PROMPT

1.1 Positive effect of OMSCS

With the introduction of Georgia Tech online Master of Science Program, it brings many positive effects and becomes one of the most popular online programs. One of its greatest positive effect is that it provides schedule and geographic flexibility to students who might work full time or do not reside in Atlanta. The increased accessibility makes the program continuously attracting students from all over the world with a strong desire to succeed in the program.

The schedule and geographical flexibility makes the program more accessible to students comparing to the traditional on-campus style program. The on campus program requires students to physically sit in the classroom to learn the materials and interact with other students and instructors. Instead, the online program offers students with the opportunity to learn the materials anytime and anywhere in the world. In one group project, I have group members from Canada, China and India. And most of them have full time job. They study the course materials after the work or on the weekends whenever they have time to study. The online study format allows the students to access the course without limitations of time and locations, which motivates a new demographical students comparing to the traditional collage students. Students come from different countries, background all have an opportunity to study. This positive effect is due to the asynchronous structure of the program, where all the courses are built online and are accessible 24 hours a day, 7 days a week for the whole semester. This allows the students to study the course according to their own time zone and study pace. They don't have to sit in the class at exactly 8:00 am anymore and can adjust their own pace of study.

1.2 Negative effect of OMSCS

While the OMSCS program offers so many positive effects and revolutionized education, it also shows negative effects of lack of student engagement. The online format means that student can only interact with the other students and

instructors online. Comparing to the traditional campus-based education, the online students cannot interact face to face in the class and miss the opportunity to know each other and have social interaction. For the instructors, they cannot provide personalized instructions or attention for specific students as the course has hundreds of students enrolled. The lack of student-student and student-instructor interaction might discourage some students to learn from the online format and in the end might drop off from the program. This negative effect is partially due to the low cost of the program. It only takes around $8000 to finish the program, much lower than the campus based program. The low cost demands a big volume of students enrollment and so the cost can be apportioned to each students and lower the cost for each student. The large scale of students in each class doesn't allow for personalized on-campus teaching method, so the interaction and socialization part was compromised due to its business model.

1.3 Redesign the OMSCS program

In order to limit the negative effect and preserve the flexibility of the program, one potential solution might be to include some offline event in hybrid with the online format. It was noticed that some students who live in same area organized meetups to get to know each other and share their thoughts about the program. It's a good way to compensate for the lack of interaction in the online program, students or TAs can be hired to organize some offline events to meet up with each other. The face to face interaction shows a good way to build up trust and better support each other in the community.

2 QUESTION 2-COMPUTER SCIENCE PROMPT

2.1 Describe an area that has political motivations

Due to the pandemic of Covid 19, a lot of technological innovation appears and aim to help and support people in the difficult time. One of the innovation is the coronavirus app that can help people to trace the contact and minimize the risk of infection. The app uses a color code to differentiate the status of people who are tested positive, negative and exposed to the positive cases. When the code appears green, it means that the person is in good status and has no contact of positive cases. And red code means that the person is tested positive. A yellow code shows that the person is in close contact of positive case and has a high risk of Covid 19. To use the app, the user need to provide their identity card number,

phone number, address and complete the questionnaire about travel history and current health status. This information is then sent to the police and government to evaluate and assign a color. While the introduction of color code brings benefits of helping people trace their contact, it also shows some potential problems of user privacy, and government surveillance if they are misused.

2.2 Stakeholders & motivations

There are many stakeholders involved in the coronavirus app, including its users, police and government, health care workers and hospitals. Regular users which include green, yellow and red code holders are the direct stakeholders. They interacts with the technology and as return the technology affects their daily life and might change the way they transport and live. Regular users are motivated to use the technology because they would like to know if they contacted people with Covid 19. If the code turns from green to red means that they contact positive people, they can go for testing immediately and take actions to prevent the spreading of Covid 19. The technology provides its user a way to trace their contact and take preventative actions.

For the police and government, they are secondary stakeholders as they did not interact with the app directly but they receive the personal information from it. The police and government are motivated to gather the data from the app as they need this information to analyze and evaluate the risk of infection. Also by using the data, they have better control to prevent the Covid 19 from spreading by identifying the positive cases and quarantine them.

For the stakeholders of health care workers and hospitals, they are motivated by the benefits the app bring. For example, the data of positive cases evaluated by the app and the data of infected area could be useful for the health care workers to prepare beforehand and allocate enough medical resource in advance. The information app provides help the health care workers and hospitals to allocate medical resources according to the pandemic situations and by doing this, it saves the medical resource from waste if they cannot accurately predict how many patients they are going to receive now and in future.

2.3 How the motivations affect the technology

The design of the coronavirus app is driven by the motivations from different stakeholders. In reverse, these motivations also change the way how the app is

designed. To motivate more users to use the app, the app is designed to maximize its usability so both novice and expert users can use it without difficulty. The interface is designed to be discoverable and simple to use without irrelevant information. Also there may be users who want to protect their privacy and don't want to share their travel history. The app should show an option for this kind of users. However, on the other hand, the government needs detailed information from the user to better manage the pandemic and keep track of the people's moving and interactions. In this way, the app will try to gather as much information as possible which might seem irrelevant to the users but necessary to the government such as identity and family information. For the motivations of hospitals and health care workers, they want to know the cases number and high risk area information. In this case, the app should be designed to include this kind of information. However, the disclosure of pandemic information may cause panic among people and it's in conflict with the government motivation to control and manage the society in pandemic. The tension between each stakeholders is an interesting topic and designers should consider the major motivations behind the design and try to find a balance between the tensions.

3 QUESTION 3

3.1 "I feel it is my responsibility to stream": Streaming and Engaging with Intangible Cultural Heritage through Livestreaming

Zhicong Lu, Michelle Annett, Mingming Fan, Daniel Wigdor

3.2 Summary of paper

The paper discusses the application of live streaming technology in the area of intangible cultural heritage (ICH). In China, live streaming and video sharing is used as a method to safeguard the ICH and engage more people into the mission of safeguarding ICH and appreciating the artifacts of ICH. With livestream, the streamers are able to interact with the views in real time, share their artifacts, discuss ICH and provide expertise in the area. The study uses qualitative evaluation method to interview 10 streamers and 8 viewers from China and ask specific questions regarding livestreaming ICH. The study aims to find out the motivations and practices when people are sharing and viewing the livestreams. Also the authors are interested in finding out the positive, negative experience of the ICH livestreaming, and its benefits and drawbacks.

For ICH livestreaming practice, the streamers use multiple phones on multiple platforms to livestream in order to maximize the visibility. They also hold Q&A sessions to answer specific questions. Some also invited other experts to share their expertise with the views. Some invited the viewers to give live performance and the streamer comment on their performance, which build a closer relationship between views and streamer [1]. For motivations, ICH streamers are motivated by the transmission and enhanced visibility of ICH. They want to transmit ICH equally to everyone and help ICH become more visible. The streamers also want to communicate with people instead of doing the handcraft alone. This social desire motivates them to share their skill and improve themselves [1].

With the interaction between streamers and viewer, it promotes a bonding between artifacts and the viewers, which in Chinese means "Jieyuan". "Jieyuan" is common in Chinese culture which suggests a natural affinity. So the livestreaming has made an impact beyond the livestreams. It creates a bonding between the ICH eco-system [1].

3.3 Why the paper is interesting

I found the paper interesting as it's related to ICH safeguarding in China and livestreaming is a hot topic. It's very interesting to see the streamers use multiple methods and softwares to transmit ICH and promote its visibility. The combination of streamer, artifacts, curated videos, livestreaming, wechat and viewers forms a eco-system of ICH livestreaming. This eco-system has made positive effect beyond its original goal of ICH transmission. It helps to build bonding between streamers, viewers and artifacts. It makes the artifacts full of personal and spiritual, and help build a trust in the ICH community.

3.4 "They Don't Leave Us Alone Anywhere We Go": Gender and Digital Abuse in South Asia

Nithya Sambasivan, Amna Batool, Nova Ahmed, Tara Matthews, Kurt Thomas, Laura Sanely Gaytán-Lugo, David Nemer, Elie Bursztein, Elizabeth Churchill, and Sunny Consolvo

3.5 Summary of paper

The research studies the online abuse for women in South Asia with the increasing use of online technology. The study aims to find out the types of online abuse

to South Asian women and how they cope with it. Focus group and interviews were conducted to find the results.

Cyberstalking, impersonation and personal content leakage are three major types of abuse in South Asian women. Some abusers use the social media to send unwanted message to participants or created malicious profiles of victim. This has caused harms to victims such as emotional and physical damage and some may lead to suicide. To cope with the abuse, victims use informal methods such as seeking family support and blocking requests. However to address the long term gender related abuse, a multidisciplinary method is needed involving cultural and social change. [2].

3.6 Why the paper is interesting

I found the paper very interesting as it discusses the negative impact technology brings, the gender-related online abuse. South Asian women faces the online abuse threats and they uses different practice to cope with it. However, it's far from enough to solve the problem from women side alone. A multidisciplinary system including police, government, cultural and social change is needed. For technology designers, they need to consider these factors and educate its users for equal and respectful online interactions between genders.

4 QUESTION 4

4.1 Interaction design and children: Child–Computer Interaction in times of a pandemic (Alissa N. Antle, Christopher Frauenberger)

4.2 Summary of paper

The paper explains the opportunities and the change in child computer interaction (CCI) field in the pandemic times. With children quarantined at home due to pandemic, it may pose new opportunities to HCI designers to design new technology to support children when they cannot meet face to face at school. A child focused social networks might be necessary to meet the needs for children in pandemic. Also the paper points out a dramatic feeling change from school and parents to research children on the digital technology. Now parents and teachers seem to embrace on the usage of technology for their children instead of rejecting it. The participation mode is also shifted in the pandemic as children

might be able to participate the workshop sessions at home with family and siblings. This brings connections in the household [3].

4.3 Why do you find it interesting

I found this paper interesting because it explains some areas in the child-computer interactions that need to be discussed and studied, especially in the pandemic time. Ethnics and people's stereotypes always play a role in the child computer interaction. As parents are worried the children being exposed to too much technology. The paper points out a change in the CCI in pandemic time and as such new opportunities appear to bring the children to quality screen time, and good participation from the design of technology.

4.4 TEI: INCORPORATING SHAPE-CHANGING FOOD MATERIALS INTO EVERYDAY CULINARY PRACTICES (Elzelinde van Doleweerd, Ferran Altarriba Bertran, and Miguel Bruns)

4.5 Summary of paper

The paper studies the potential application of a shape changing food material in the area of gastronomy and human food interaction (HFI). The researchers use food puree and create five different flavored edible paper using 3D printing technology. The edible paper was then evaluated using origami techniques to test the ability to form different structures. Then five chefs were provided with the edible paper to test the sensory, folding and transforming. The transformation was realized by adding chitosan which is a coating agent and lemon juice to lower the pH and react with chitosan, as a result to cause the shape changing reaction. The study explores the interactive potential of shape changing food materials in the everyday culinary practice. And it also recruit chefs to participate in the research and study their opinions and interaction process with the shape changing food materials [4].

4.6 Why do you find it interesting

I found the paper very interesting because it links our everyday eating practice with the interaction of technology. The shape changing food materials pose a potential to change people's dining experience and inspires the chefs to interact with its customer in a new way of technology interaction. The use of shape

changing food materials may change the way people perceive food and brings more excitement to their dining experience.

5 REFERENCES

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