**Monday:**

**1. Starbucks wants to evaluate whether their mobile pay solutions are having a positive impact on customer service. Outline how they might collect data to answer this question using:**

A. An Observational Study

They could pick a few Starbucks stores to go to and observe how customers pay. By doing this they could see how many usually pay with their mobile pay solutions and those who do how those interactions happen and compare them to those who don’t use the mobile pay solutions.

B. Focus Groups

They could conduct focus groups to get together and talk about how their interactions when using to mobile pay solutions so that they are around others who use it as well and can openly talk about their experiences and be able to say exactly what they think because they know they are not alone and others may have the same exact opinion or has had the same experience.

C. An Online Survey

They could send out an online survey for the customers to ask general questions about if they use mobile pay solutions and how they rate their experiences. This way they can get really high level questions and data to know if there are even a mass amount of people using the mobile pay solutions and if it is even worth giving out to people.

**Wednesday:**

**2. In 2014, Facebook conducted their infamous Emotional Contagion study where they manipulated users' newsfeeds to contain differing amounts of positive and negative content. Name the (a) research question, (b) independent variables, and (c) dependent variables that Facebook used in this study.**

**(a) research question**

- Does the content portrayed on a user’s newsfeed influence their emotions?

**(b) independent variables**

- The content that you are changing to be positive and negative to try and effect the user.

**(c) dependent variables**

- How much a user uses the site or how much the user is engaging with or cares about the content.

**3. What kind of data collection strategies would you use to:**

A. Determine user perceptions of a social media campaign

Survey, focus group and interviews. I would use surveys to get general overall data to ask high level questions such how often do you use Facebook and questions like that. I would use interviews to get a deeper understanding to ask the user more complex questions about the users’ perceptions.

B. Assess the effectiveness of a web redesign

Observations because you could watch the way people interact with your site to see if your site is effective or not. You could also send a follow up questionnaire to get feedback on how they felt about interacting with my site.

C. Decide whether the next iPhone will live up to its hype (and turn a profit)

I would use a focus group to introduce the product and use the feedback from the focus group to see if it will be a hype or not. I would also use a simulation to mock up and see if it would be something that people would be interested in or not.

**4. For the three scenarios above, describe how you would conduct each investigation (i.e., not only the type of method, but what question would you answer, what procedure would you use, what kind of data would you collect, and how would you analyze that data to answer your question).**

**(A) determine users perceptions of a social media campaign** – I would conduct interviews for this investigation. I would try and answer the question of “what impact does this social media campaign have on you specifically. I would do interviews to collect this data because it would be the best way to get specific details from someone when asking this question. This is sort of a broad questions so you would need to have follow up questions to help get useful data out of the answers people give you. For example you could ask “what kind of impact does this have on you” then follow up with “is this a negative or positive impact, and why?” so you can get as much information and data from their answers as possible to be able to answer to ultimate question of determining a users perceptions of a social media campaign.

**(B) Asses the effectiveness of a web redesign –** I would conduct and observational study for this particular scenario. I would do that by getting someone to interact with the website as I watch and observe them. I would not ask them to do specific tasks as first, just see their initial reactions and this could tell me if the intent I had with the site was correct by seeing if what their first reaction is correlates to how I designed the site based on how what I wanted my users to do. I would then after a while of watching them play around with the site on their own to see where they get confused etc. I would then tell them to do tasks to see if they know based solely on the design I have that they know how to do the task I have assigned them. This will determine the effectiveness of the way I have redesigned my website because it is watching a real user interact with it and seeing what problems come about or if it is easy for them to interact with the site.

**(C) Decide whether the next iPhone will live up to its hype (and turn a profit) –** I would put together a focus group as well as a simulation. I would use a focus group because it would be a way to get a group of potential buyers of the next iPhone to see if it is something they would be interested in and how they react to it. Then using a simulation you could even take their experience a step further to see how they react to a simulation of the next IPhone and if they enjoy their experience and give feedback like they would buy it and they are excited for it to come out then it shows that this would be something IPhone users would be interested in. I would hold a few of these focus groups to ensure I am getting lots of data from a lot of people.

**5. Describe how you might use data fusion to determine how the location people are in influences the ways they communicate with others. Assume you have full access to data from all technologies that a person may be carrying with them or that may be embedded in the environment.**

You could use data fusion to determine this hypothesis by gathering data from peoples location on their phone, as well as their call logs, or text messages even emails. Then take the data from each separate set those being call logs, text messages and emails and be able to map them out based on where they were when they were sending whichever kind of communication they had. So if location A is predominately text and Location B is predominately emails, then it shows that these different locations impacted the way people needed to communicate. Location A could be a on a bus route and Location B could be a coffee shop or something. You can determine this when you map it out but by fusing those different data collection methods together you can start putting together pieces that can either support or decline this hypothesis.