

Design Review Reflection and Synthesis

Feedback and Decisions

The primary feedback we received was to not depend on obtaining historical data from the MBTA, and instead look to other data sources, like the New York Subway, Hubway, or Capital Bikeshare. When we developed the original plan for the project, we thought this could be a problem, so using the Capital Bikeshare data has been our backup.

Following the design review, we researched the potential datasets suggested to us. We found that Hubway has extensive trip data as a result of a Hubway Data Visualization Challenge, with a few years of data on each individual trip. The New York Metropolitan Transportation Authority also has some historical data, which can be obtained through a process of building query links and is outlined on their website. Our plan is to use the Hubway data and make a prediction algorithm for bicycle use in Boston.

We also obtained some feedback on making a user interface. Flask was recommended to us by one of the other groups, and both groups shared their thoughts on what they would like to see in a potential user interface. One piece of feedback was to create a general scale for how much traffic on the MBTA there would be, using a simple color scale (red for very busy, yellow for moderate traffic, green for light traffic). Another comment was that we should not lean too heavily on a graphical representation, but also include some simple written description for how much traffic we expect there to be. The concern was that some people can analyze the prediction better with some kind of written feedback, as opposed to a color graphic.

Following this feedback, we decided that depending on what dataset we decide to use, we will incorporate a more general tool that allows users to see approximately how busy a station will be to help simplify the prediction. We may include the exact predicted number of riders, but we will focus on creating a clear representation of traffic in any user interface we make. We also plan to move forward using Flask, but we will make sure that we get the machine learning part working before we delve extensively into a user interface.

Review Process Reflection

The design review went well. We received answers to all the questions that we posed and got some perspective on how we should move forward, knowing that we may not get data from the MBTA. We specifically asked what others thought we should have as a contingency plan, and we left the design review with more contingency plans and a better idea for how we could ensure we have enough data for a successful project.

We adhered relatively closely to our planned agenda. We maintained the order of the items outlined in the agenda, though we spent less time on certain items explaining the presentation and more time asking questions and obtaining feedback. Overall, this was actually a positive outcome. We were able to communicate what we wanted to about our project and had more time to discuss feedback with the other two groups. As a result, we received quality feedback that we can confidently act on. For our next review, we will likely schedule more time for questions and feedback to make sure that we have enough time for

detailed constructive feedback. The feedback we received was very useful for this review, and we want to ensure that we have enough time in future reviews to have the same level of detailed quality feedback.