Interaction Metaphors:
- Look up bus stops on a bus map and then cross reference with a time-table
- Ask the Bus Captain (only available at major stations)

(These are really the only two interaction metaphors. I’ve left off the “stand around and wait for the bus” metaphor because that’s not a solution to the problem.)

Problem Scenario:
(re-written because last time I really wrote an activity design scenario and not a problem scenario)

Jason is a student who lives on Mission Hill. It’s raining outside and he wants to take the bus to a club in Cambridge. Being technically savvy, he knows that Google Maps will give public transit directions complete with bus times. He goes into his bedroom to use his laptop, because the data on his phone is expensive. He navigates to the website, which he has memorized, and types in his address and the address of the club, even though he already knows how to get there. Google spits out driving directions first, so he tabs over to the public transit page. The route Google highlights is shorter, but he knows that the particular bus that Google has recommended is often crowded and sort of sketchy. He feels much safer on another bus, so he switches to a different route. Only the next bus time is listed, and he knows it will take him long enough to get out of the house that he won’t make that bus. Instead, he waits until Google has determined that he cannot make that bus and tells him when the next one arrives. He’s frustrated now he didn’t know how little time he had earlier and is now rushed. In his frustration, he leaves his wallet behind and has to go back and get it. He then needs to run to the bus stop.

Activity Design Scenario:

Jason, who lives on Mission Hill, wants to take a bus to a club in Cambridge. Before leaving his house, he opens up WMDB on his phone, because he knows the WMDB uses very little data. It locates several nearby bus stops. He knows that the 66 goes to Harvard Square. He taps his finger on the nearest bus stop that displays 66 near it. A list of bus routes expand upward. He selects the 66 and sees that two directions have appeared. He slides his finger toward Harvard Square, because that’s where he wants to go. He skims the list of arrival times that display. It usually takes him 5 minutes to walk to that stop, but the next bus arrives in 3 minutes. Knowing he won't make it, he looks at the next bus. It arrives in 16 minutes and 33 seconds. He concludes that he should wait 10 minutes before leaving for the bus stop, and uses the time to get ready.

Problem Scenario:

Ann, who is a senior citizen living by MIT, needs to catch the bus home from Harvard Square. She knows the #1 goes down Mass Ave. Unfortunately, it’s dark out, and she doesn’t want to leave the
restaurant she’s at until she can get on the bus. She keeps a bus schedule in her purse. She looks up the #1 bus, which is thankfully at the top, and notes that the next bus is scheduled to arrive in 10 minutes. She waits 5 minutes and then walks to the stop. Unfortunately traffic is heavy and the bus is late. She very nervously waits at the bus stop for 5 additional minutes for her bus to arrive, but eventually makes it home safely, if a bit shaken.

**Activity Design Scenario:**

Ann, who is a senior citizen living by MIT, needs to catch the bus home from Harvard Square. She knows the #1 goes down Mass Ave. Unfortunately, it’s dark out, and she doesn’t want to leave the restaurant she’s at until she can get on the bus. She does own a smartphone, however, and so uses WMDB to find out when the next bus will arrive. It turns out that, with the traffic, the busses are all running late. The next bus should have arrived in one minute, but because of the traffic will arrive in six. She pays her bill and walks directly out to the stop and gets on the bus. She makes it home safely and no worse for wear.

**Problem Statement:**

Mark is a Northeastern student living on campus. He wants to take the 47 bus to Harvard Square. He knows it leaves from Ruggles Station, and goes to the station to wait. The bus, as usual, is late. He talks to the bus captain, who tells him it should be coming in the next 15 minutes. 15 minutes pass and the bus hasn’t arrived. He goes to the bus captain again, who calls up the bus driver. It turns out that bus has been pulled out of service, and he’ll have to wait for the next one. He asks when that one is coming and is told “15 minutes.” 20 minutes later, it does, in fact, arrive.

**Activity Design Scenario:**

Mark is a Northeastern student living on campus. He wants to take the 47 bus to Harvard Square. He knows it leaves from Ruggles Station, and consults WMDB to find out when the next bus arrives. WMDB says that the next bus arrives in 15 minutes. He knows it takes him two minutes to walk to Ruggles, and so waits 10 minutes. The bus is then pulled out of service, so WMDB sends Mark an alert that the bus was removed from service and that the next one will arrive in 25 minutes. Mark then waits another 20 minutes and then walks to Ruggles Station to catch his bus. The bus arrives shortly after he does.