

Ashton Turner & Abigail Emerson

Dr. Leila Aflatoony

Interaction Design Studio

January 24, 2022

### Observations of Mental Wellbeing and Behaviors while Driving

The topic chosen was focused around mental wellbeing, an individual's thoughts and feelings and how they can cope with the ups and downs of everyday life. Specifically, the question being asked is "How could we help young adults adopt mental wellbeing behaviors (e.g., meditation, self-reflection, etc) to deal with anxiety and stress caused by driving?"

The focal points of the observations included the way drivers react in busy parking lots surrounded by cars, trucks, bicycles, and pedestrians and how drivers interact with stop lights while driving on campus grounds. Other focal points were in what ways drivers interacted, if any, with pedestrians, along with how drivers navigate going through an intersection.

The environment where observations took place were both on Georgia Institute of Technology's campus and off-campus. On-campus, observations were conducted at the Howey Parking Lot and Student Center Parking Garage on Sunday at 4 o'clock pm, the intersection between Ferst Dr. and Fowler Dr. NW at 11am and the large brick crosswalk for Ferst Dr. at 2 o'clock pm on a Monday. Off-campus, research was done at the Tech Square intersection on a Sunday afternoon at 3 o'clock. These locations were all studied closely for a total of around 45 minutes to an hour each.

Data was recorded via written notes through multiple methodologies and tools such as AEIOU (Activities, Environment, Interactions, Objects, Users), Needfinding, and Narrative framework. Pictures were also taken but were found to not be great evidence that would support

the following observations. Data was then analyzed through grouping and the creation of an affinity map.

Beginning with observations taken in the Howey Parking Lot and Student Center Parking Garage, drivers were found to be very aggressive. Many came within mere feet of possibly injuring pedestrians and cyclists. On the other hand, both pedestrians and cyclists seemed to disregard drivers in general, not paying attention to them until drivers were audibly heard speeding up or until cars were right behind them. The drivers appeared to be mainly students and staff, who drove facility maintenance trucks and buses, of Georgia Institute of Technology. Interestingly enough, the students who appeared to be leaving the parking lot, and therefore possibly leaving campus, drove more recklessly, only spending about 10 seconds in their cars before backing out of their parking spaces and speeding away. However, most surprising of these observations were that all drivers disregarded pedestrians and cyclists in parking lots as they would get close to pedestrians and not even give them a side-glance as they passed them.

The next set of observations took place at two different stop lights on Ferst Dr, with one observation more closely focused on how drivers interacted with stop lights as opposed to how cars interacted with pedestrians crossing. In terms of stop lights, it was found that drivers of smaller cars were more likely to slow down significantly at the light, which also happened to be right before a speed hump, whereas drivers of larger cars continued at only a slightly reduced speed. With an even larger vehicle, bus drivers seemed to somewhat disregard the speed bump altogether. Surprisingly, when it came to stop lights, vehicles that were clearly marked as Georgia Institute of Technology property drove at somewhat higher speeds when coming up on the light but stopped a good 10 or more feet away from the stop light line. On the other hand, all other cars seemed to stop right on top of the line or over the line.

Further down the road, where Ferst Dr. intersects with Fowler Dr. NW, research was done on pedestrians' interactions with drivers and vice versa. Pedestrians and drivers would 9/10 times interact with an object, such as their phone, the car interface, another passenger, or a pet.

Whereas pedestrians seemed unaware of the drivers around them, the people in the cars were not afraid to interact with pedestrians, even going as far as honking at a person walking if it felt like they weren't walking fast enough and were distracted. Not only that, drivers were very bold in their driving choices, slowly inching their cars forward and even coming as close as mere feet away from a pedestrian and then would signal them to walk faster. People in cars were very weary when it came to other modes of transportation on the road, consistently giving bicyclists and scooterists side-eyes and glances as they would come up on them and slowly pass them. If there ended up being no traffic and the car needed to share the road with a bicycle or scooter, they would end up leaving about 5-10 feet in between themselves and the other person. During the time observed, for all cars that drove past, there was no loud music that could be heard outside of the car. This could be interpreted as occurring due to the time of day or because drivers didn't want to appear noisy to the people walking. The biggest surprises found during these observations were that whenever a person was within 20 feet of a crosswalk, cars would slow down, whether or not a person was walking in front of them, and then immediately after passing them they would speed up. Drivers would slow down even more if they were turning. It was evident that the driver was hesitant to go by how the driver slowly crept up on the turn, not going over 5 mph just in case the person was going to walk in front of them.

The very last observations took place off Georgia Institute of Technology's campus at the intersection by Tech Square. Most of the people observed looked to be ages 18-30, which could be due to the time of the day as it was before work typically gets out for most.

Similar to one of the findings made above, when stopped all drivers would be distracted with either their car's interface or their phone. Those looking down on their phones would more likely than not miss that the light just turned green and take longer to start their cars than those looking at their car's interface. Drivers with passengers in the car ended up actually driving more cautiously and slower. On the other hand, when a person was driving alone, they drove faster while looking around more and occasionally revved their engines. One of the most interesting findings was that drivers seemed either very hesitant and cautious when driving or very aggressive. It could be inferred that driving either raises a person's confidence, which could be seen as how a person would drive faster and take turns more deliberately, or lowers a person's confidence as they would look around and hesitate when more cars joined them on the road, especially at intersections. Those that hesitated would normally wait for someone else to go at the intersection whether or not they had the right of way.