

My Experiences with Tesla Model 3

Part 1: Getting the Car

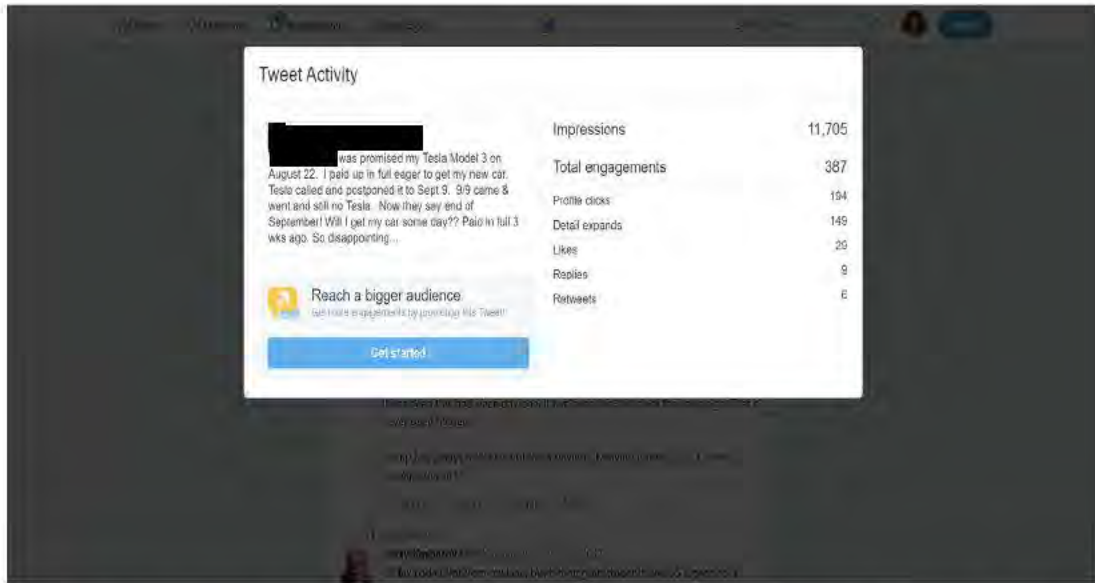
I am a professor of Information Systems and Digital Commerce at Emory's Goizueta Business School. I am a tech enthusiast and an early adopter of many consumer technology products. When the Tesla Model 3 car was announced, I eagerly put down a deposit of \$1000 and waited my turn. On August 22, 2018, I was excited to receive a call from Tesla promising delivery of my car on Sept 9th. However, on Sept. 9th, 2018 they called and told me not to show up because my car (yes, they had already matched me to a specific car in the supply chain with its own VIN which I could see on my Tesla account) had not yet reached the delivery center. They said it was stuck somewhere in their supply chain and they did not have any more information for me.

I was disappointed about the turn of events and tweeted about my experience with Tesla on September 10th as shown below.



The image shows a screenshot of a tweet and its reply. The tweet is from a user whose name and profile picture are redacted with black boxes. The tweet text reads: "-- People love this car, but your service operations...not so much!". It is dated "Sep 10" and has a downward arrow icon in the top right corner. Below the tweet is a reply from another user, also with a redacted name and profile picture. The reply text reads: "I was promised my Tesla Model 3 on August 22. I paid up in full eager to get my new car. Tesla called and postponed it to Sept 9. 9/9 came & went and still no Tesla. Now they say end of September! Will I get my car some day?? Paid in full 3 wks ago. So disappointing...". At the bottom of the reply box are icons for a comment bubble, a retweet icon with the number "1", a heart icon, and a vertical bar icon.

The next thing, I know, the tweet gained steam and by end of the day, many people had engaged with the tweet, including several others also complaining about Tesla's lack of service



Mr. Russ Mitchell, a reporter for the *LA TIMES*, contacted me and asked if I'd be willing to be interviewed for a story he was doing about Tesla's supply chain woes.

The image shows a vertical thread of four tweets. The first tweet is a reply from a user with a blacked-out profile picture, dated Sep 10. The text reads: 'Another frustrating day with @Tesla. Being jerked around between Las Vegas (central) and local delivery (Decatur, GA). Meanwhile, my lease @Lexus expires in 2 days and they give me free grace period! What a difference in customer service between @Lexus and @Tesla'. It has 1 like and 1 retweet.

The second tweet is also a reply from a user with a blacked-out profile picture, dated Sep 10. The text reads: 'Now this from @Tesla after promised (& failed) deliveries on 8/22 & 9/9: "Estimated delivery by late September. We will reach out to you to schedule your delivery date. Delivery time frame will be based on reservation date, order date, delivery location and vehicle config."'. It has 1 retweet.

The third tweet is a reply from a user with a blacked-out profile picture, dated Sep 10. The text reads: 'I'm interested in hearing your story, [redacted]'. It has 2 replies, 1 retweet, and 22 likes.

The fourth tweet is from a user with a blacked-out profile picture, dated Sep 10. The text reads: '@abemory · Sep 10. Thanks for asking me to share my experience with @Tesla. Was excited to get this car, but the poor customer service and delivery delays has really soured my view of the company and the car!'. It has 1 reply, 1 retweet, and 1 like.

I accepted his interview request and provided all the details regarding my phone conversations and follow up with Tesla up to that point. Two subsequent stories were published in the *LA Times* based, in part, on my experience – see links below:



Within 10 minutes of my interview with Mr. Mitchell (the reporter from the *LA Times*), the Tesla dealership in Alpharetta (outskirts of Atlanta) and not the one closer to my home in Decatur with whom I had been interacting, contacted me and told me that my Tesla was ready for pick up. The specifications were the same as my order (black exterior and interior with 18 inch Aero wheels) although this was a different VIN from the car I had been originally matched with. Regardless, I was excited to get the car and received delivery of the car on Sept 12, 2018. There were a few, relatively minor issues with the car including a slight tear in the rear seat, but Tesla promised they would switch out the seat for me later, which they did!



Part 2: Learning to Drive the Tesla

As I gained experience with the car, I fell in love with it: the way it drove, its intuitive sense of the driver's patterns of braking and acceleration, the smooth pick up, the large context sensitive displays, the signals for blind spot corrections, and context sensitive lighting. I loved it all! Fortunately, I don't have to drive a long distance to work and my commute to work and back is under 10 miles. On weekends, my husband would drive the car when we both went out together and he too thought it was such a great car (he drives a Prius and so he especially appreciated Tesla's quick acceleration!).

In short, our initial disappointment with the service was all but forgotten and we became Tesla enthusiasts, singing its praises to anyone who cared to listen. Although we had full self-driving

capability installed in the car, the two features we never used were Auto Park and Self Drive. I told myself that one of these days, I would get up early when the Atlanta freeways were empty and try out the car's self-driving capability, but had not done so, yet!

Part 3: The fateful day in May

So it had been about nine months since I got the Tesla and I had driven fewer than 4000 miles. We wanted to take it on a longer drive and I told myself that I would do so in the summer months when I got some free time. Then the following happened on May 6, 2019!

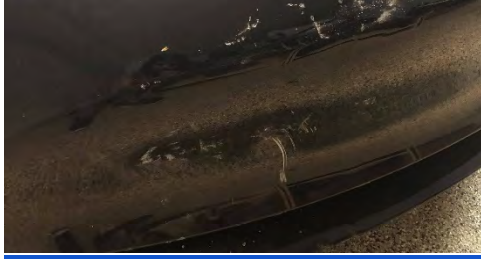
I describe below what happened with my Tesla Model 3 (2018 car) and the **UNINTENDED ACCELERATION** (UA) situation I faced on that day. A quick summary and timeline is as follows:

1. On May 6th, sometime between 8:20 and 8:30 pm, I pulled into the driveway of my home and slowed to a halt to park my Tesla. I was returning from work after stopping to see a friend on the way.
2. As I was waiting for the garage door to fully open, the car suddenly and violently accelerated and lurched forward.
3. I immediately jammed the brakes but could not stop before the car hit the stone wall (separating our two car garages is a stone pillar) -- mine was on the right side garage. My husband's Prius was parked in the left garage which was closed at that time.
4. I have attached pictures of the broken wall and my car. You will see the damages to the car are on the right side of the car which are on the opposite side from the center stone wall. Even if I had pressed the gas pedal (as tesla will most likely claim!) there is no way that I could have hit the right side of my car.
5. I called Tesla that very night (probably around 9 pm or shortly after) and registered the accident with Tesla Engineering Services. I also filed a complaint that night in the NHTSA (National Highway Transportation Safety Authority) that same evening. [Complaint #11206155]
6. I have tried to follow up with Tesla but have not received any response from them as I am unable to get past their front office people [see separate section on follow-up and response history from Tesla]



[Redacted]

[Redacted]



[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

Pictures of the damage to the stone wall, garage, and structural damage to the house can be seen at

[REDACTED]

Part 4: Am I alone or are there many such cases of #Unintended Acceleration with Tesla?

The surreal experience with Tesla left me bewildered, sad, and angry! How could a car just take off on its own like that? Were there other Tesla drivers that had experienced anything similar to my experience? Naturally, these questions were at the top of my mind when I sat down to investigate further...

First, there are several cases similar to mine that are in the public record already. These are all instances of where drivers describe the car suddenly and violently accelerating forward. I have compiled these through a careful search of the NHTSA database where drivers have filed a report. Naturally, I do not expect that this is a complete record of all such cases. I have only compiled cases where the acceleration occurred unexpectedly at the time of parking. There are other Tesla crashes due to Autopilot feature and others that are not reported here.

1. I noticed that the **unintended acceleration** issue has been reported across all Tesla models (Model S, Model X and Model 3).

2. The cases I was able to collect from NHTSA database are recorded here. I screened only for cases where this occurred during parking and not all unintended acceleration cases recorded.

a. [Complaint#11082114]

[Redacted]

b. [Complaint#10545488]

[Redacted]

c. [Complaint#10864163]

[Redacted]

3. There have also been several cases that have received considerable media exposure, especially in cases involving public spaces such as nail salons, restaurants, and dry cleaners. I have logged some of these high profile cases here:

a. [Redacted]

b. [Redacted]

c. [Redacted]

d. [Redacted]

e. [Redacted]

f. [Redacted]

g. [Redacted]

h. [Redacted]

i. [Redacted]

j. [Redacted]

k. And most recently, this from another woman trying to park her brand new Tesla in her garage [Redacted]

[Redacted]

Part 5: Tesla's Lack of Response and Possible Causes

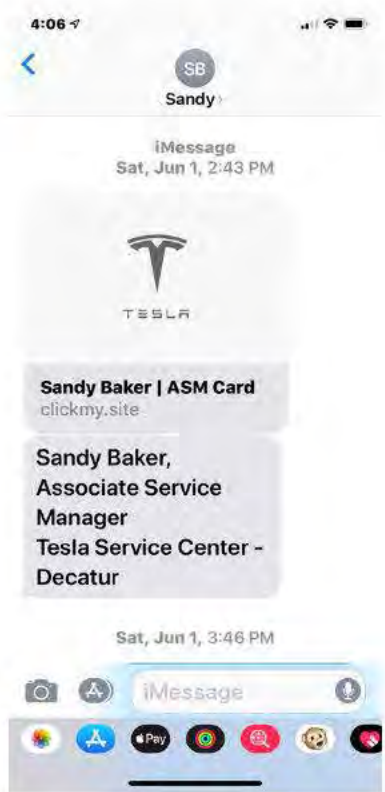
When the accident happened on May 6th, Tesla told me that it would take about three weeks for them to get a response from their engineering division. After three weeks, I followed up with our local service center. I said I would like to receive the logged data from my car and they said they will let me know what they hear back from engineering.

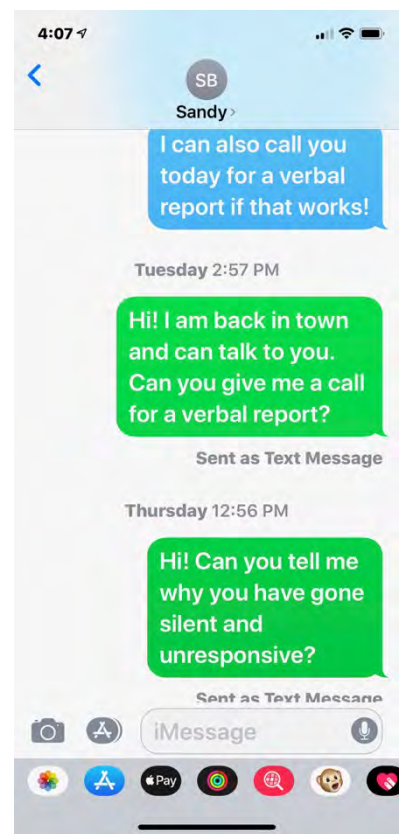
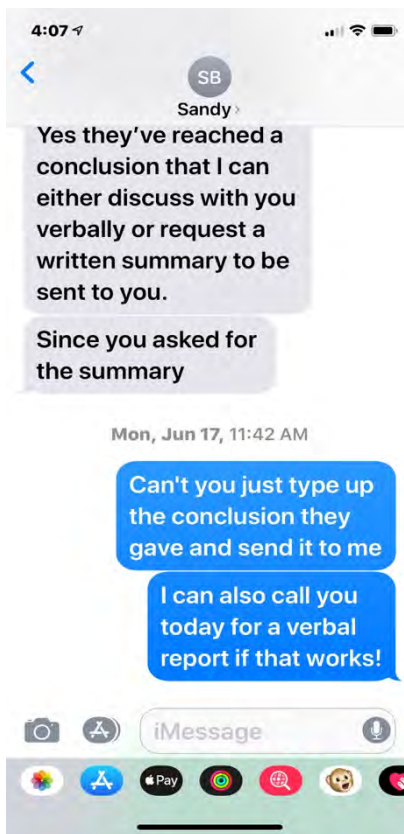
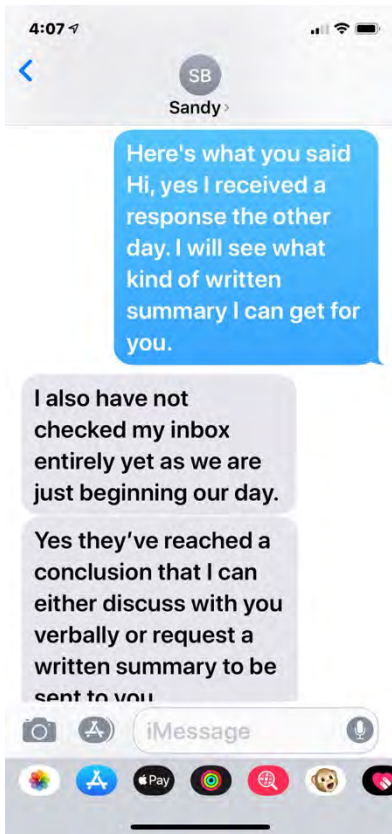
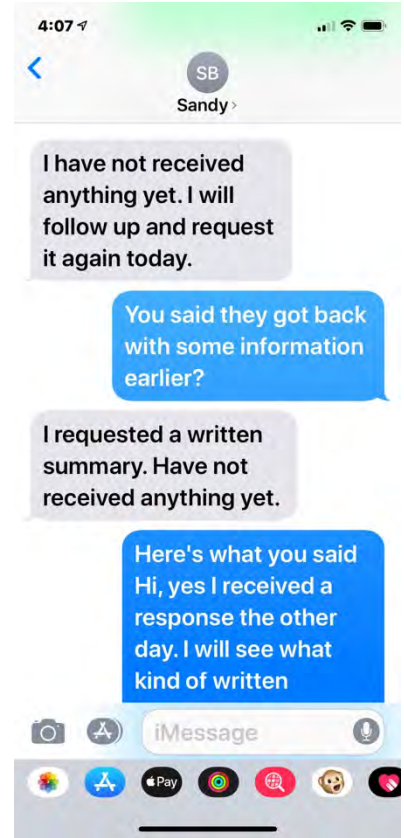
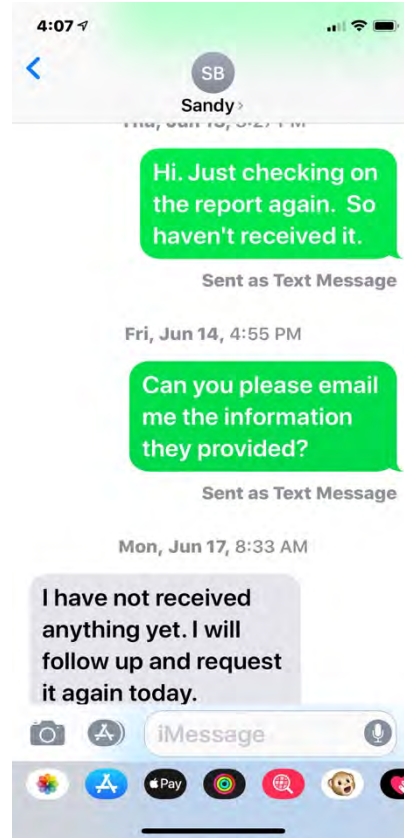
Tesla's standard response to drivers in similar predicament has been something along these lines...

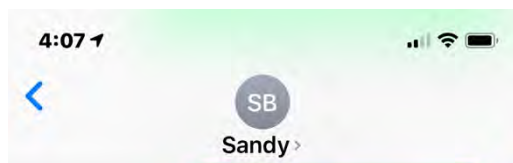
"We take the safety of our customers very seriously and we're glad our customer is safe. We investigate the vehicle diagnostic logs in every accident in which a driver claims their car "suddenly" and "unexpectedly" accelerated, and in every case the vehicle's diagnostic logs confirm that the vehicle operated as designed. Accidents involving "pedal misapplication," in which a driver presses the accelerator pedal by mistake, occur in all types of vehicles, not just Teslas. The accelerator pedals in Tesla vehicles have two redundant sensors that clearly show us when the pedal is physically pressed down, such as by the driver's foot." [Ronald A Belt]

In every case, Tesla has responded with these standard statements which I think, based on my experience, is totally incorrect (I am aware of what happened to my car and it was *not* due to me pressing the gas pedal by mistake).

Since then, I have contacted Tesla Service center several times but am yet to get the response regarding what happened that evening? I produce below screenshots of the interactions with Tesla's service center manager that shows the delay and run around that I have received from Tesla.

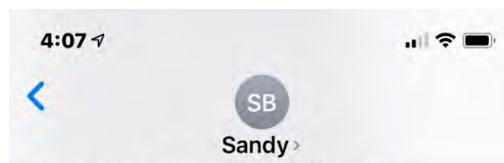






Hi! Can you tell me why you have gone silent and unresponsive?

Sent as Text Message



written summary. I'll call you tomorrow.

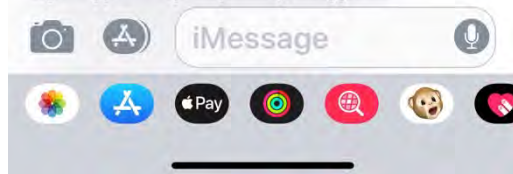
Thursday 10:03 PM

OK. Thanks

Delivered

Thursday 8:12 PM

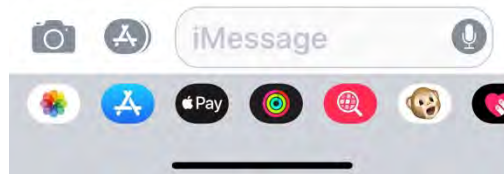
Yes. Sorry this is not my primary phone. I will give you a call tomorrow. I've also been working on obtaining a written summary anyway in case you would like it. I've been told it could take a little bit of time



Friday 3:30 PM

Just tried giving you a call from the service center number and it went to voicemail.

I am departing work very soon and will be back Monday to follow up again if necessary.



As of today (June 24, 2019), I am still awaiting their response!

[Is Unintended Acceleration a new problem or only new to Tesla?: Research from AutoSafety.Org](#)

My further research into this issue reveals that Unintended Acceleration is not entirely a new problem and other Auto Manufacturers have faced similar issues in the past. However, Tesla is stonewalling and refusing to acknowledge that there might be a lurking negligence issue and product liability issue for them here. There is good bit of research into this issue, most notably, by retired Honeywell Physicist, Mr. Ron A Belt. Please see his stack of research papers on this subject here.



Most interestingly, Mr. Ron Belt has been able to obtain the data logs from Tesla in a single auto acceleration incident and he analyzes the data in this paper

In this paper, Mr. Belt states that *“In this paper, the author has obtained the complete accelerator pedal sensor log data for a sudden acceleration incident from a driver who got the log data from Tesla during a telephone conversation. The Tesla engineer gave a detailed description of the log data to the driver, who then provided it to the author. The author then plotted this data to create the figure used in this study. We will now take a look at this log data”*

In section 2 of the paper, reproduced below, the author goes on to show why the peak accelerations reached by the Tesla during the period of unintended acceleration produces a pattern that cannot be initiated by humans. Please refer to the full paper. I’ve reproduced the relevant section below for easy reference.

Figure 1 shows the accelerator pedal sensor data logged during a Tesla S sudden unintended acceleration incident. The driver maintained that her foot was not on the accelerator pedal at any time during the incident. Above each peak and valley are the amounts that the accelerator pedal is being pressed in percent of maximum travel, where maximum travel means pedal floored. The durations of the pressing are shown in seconds. Beneath the peaks the vehicle speed is shown in red in miles per hour. At $t = 3.5$ seconds when the crash occurred, the power to the drive motor was turned off as the vehicle was going at 15 miles per hour. It can be inferred from the data that the inverter logic and sensors continue to operate as before the crash. Amplitude data was not provided for the two peaks after the crash. After the crash the vehicle was stationary for five seconds before the brake pedal was applied. Figure 1. Accelerator pedal sensor data for a sudden unintended acceleration incident Tesla engineers interpreted the peaks in the data as the driver causing the sudden acceleration incident by pressing on the accelerator pedal. But this does not explain the zero-amplitude periods of one second duration between the periods of higher amplitude. These zero-amplitude periods were explained by Tesla engineers as the driver alternately pressing on the accelerator pedal and releasing the accelerator pedal; i.e., “stabbing” at the accelerator pedal. Note that the time periods of the peaks and valleys are accurate to 0.1 second. There is no way that a human driver can produce four time periods of exactly one second duration accurate to 0.1 second by alternately pressing and releasing the accelerator pedal. Therefore, the author began to look for an alternative way to explain these periods of zero amplitude by some malfunction of the electronic circuitry. One suspicion was that the four time periods of zero amplitude are caused by some integrated circuit component going into reset.

I am not a physicist and unable to independently verify Mr. Belt's theory but his claims seem plausible. This also suggests that it is not an easy software fix for Tesla – otherwise they might have fixed this issue over the air! I suspect that Tesla will have to recall a whole lot of cars if they want to address this issue in earnest. In the meanwhile, we can be assured that we will continue to hear of more cases of Unintended Acceleration while parking.