

## Research Project

Amongst the vast majority of college campuses across the map, a prevailing commonality tends to be an issue with limited parking spaces on or near campus. Not only does this issue affect students, but it also disturbs staff, faculty and even visitors. Subsequently, communities become frustrated and long for uncomplicated/painless alternatives. Solutions to this matter have been presented, but either require great financial assistance or were not impactful enough to make a true difference. So, how might we reduce this frustration and find a more effective and low cost solution for this national dilemma?

Texas State University in San Marcos, Texas is one university in specific that has been unambiguously impacted by this problem. There seems to be an overabundance of citizens in relation to a limited number of campus parking spots, despite the assorted options that have been provided. These options range from a campus bus system to various parking passes that students/faculty have to pay for. The overarching issue with these options is that the shuttle system remains consistently crowded, whereas parking passes are financially demanding.

To put things into perspective, there are four different types of parking passes that students have the availability to choose from. Residence Hall (green), Mill Street/Residence Hall (gold), Commuter (purple), and Motorcycle. Green passes cost \$485 for Spring and Summer, while the other three cost \$115.

With that being said, a potential solution for this parking problem could be the implementation of a rideshare/carpooling app. It would not only help students save

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money and clear up parking spaces, but it would also be a great way to meet new people. The cost to share a ride between passengers would be significantly cheaper than a \$485 parking pass issued by the school. When students use the app, they would spend no more than \$2 per mile each ride and would not have to worry about spending hours searching for a parking spot.

Carpooling would eliminate the crowded parking lots and would open up more parking spots. When a student purchases a parking pass, the parking spot is not guaranteed. When using the carpool app, the student does not have to look for a parking spot because every ride will have a designated drop off zone. Since students would be able to use their Texas State login information, the options to find potential drivers would be a lot easier since the school has all the information of their students. The school can send mass emails regarding future employment for drivers.

The target audience for this app will primarily consist of Texas State students but may also include parents, teachers, and anyone else who needs a ride to campus. There are over 38,000 students at Texas State and 81% of them live off campus (UsNews, 2018). Roughly 31,000 students have an off-campus commute and there are only 9,000+ parked vehicles on campus per day (TxState). Whether or not most of these students walk, ride their bike, take the bus, etc., there is clearly a disparity between how many students live off campus and how much parking is available. Students attending a university generally lack funds due to already paying for school

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and other expenses. This creates a need for more than just transportation but also affordable transportation.

There are multiple costs involved in the development of this idea mainly being the app design. Depending on how the process is done the price can range from \$1,000 to \$100,000 and up (Blair). The price is based on whether an independent developer, a small agency, or a large corporation is hired. This includes the design process, coding, servers, security, product testing, and separate facility and program charges. Other charges include equipment, insurance, and hiring lawyers.

Costs will be covered with sponsorships and investments. Partnering up with Texas State University would help the app succeed by providing drop-off/parking locations as well as parking passes. Finding venture capitalists or angel investors will also be an important part of getting the app up and running. Revenue will be generated through the app with a \$2 base rate and \$2 per mile fee, which will then be divided by the number of people receiving a ride. We will then take a 25% cut from the drivers' total fare. These prices are similar to Uber and Lyft (Ridester, 2019).

The scope of this problem is one seen all over the nation and different universities have tried solving. One of the most obvious solutions is building a new parking garage, but that is not very cost-effective. A few universities have come up with some solutions such as free public transportation and increasing bike usage, however,

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that is not enough. Along with these limited solutions, other universities have also tried incorporating Zipcars.

In addition to incorporating locked bike stations, the University of Arizona has integrated bike valets that do not require students to tip (Rivera, 2015). Rutgers University in New Jersey has started accommodating students and staff by staggering class schedules for up to 20 minutes (Rivera, 2015). By doing so this has reduced peak traffic times and has allowed for more opportunities to use university shuttle buses. In 2015 Santa Monica College was working with Uber in attempts to create a carpool program but nothing concrete ever happened. (Ohland, 2019)

Florida State has a similar app to the Texas State app, where it shows you real-time updates on university shuttles. They also created another app that allows students to see the approximate amount of parking spots left in each garage (Burnham, 2016). UC San Diego additionally has a similar app that allows students to see the amount of parking left. Texas Tech, Clemson and Auburn have a service with electric vehicles, GotachaRide, that provides free rides for students, parents, faculty, and staff.

Finally, UC San Diego has an app that closely relates to the product we are trying to create. This application is similar to what we are trying to create in the sense that they use their student ID as a part of the app; however, they don't have a carpooling option. The app does include shuttle arrivals as well as available parking spots.

For this application, we must consider some of the diversity that we will encounter. An option for a *free* Orientation and Mobility (O&M) training would be available for drivers that would like to be a bit more welcoming to the guests in their car. An introduction of yourself, as well as anyone who might also be in the car, would also be a nice aid when encountered with a person with a [dis]ability. When a person with a visible [dis]ability approaches you, it is best practice to ask if they require assistance, rather than just assuming they're not capable.

For people who are deaf or hard of hearing, all audible information should be made accessible visually. Notifications would have a vibrating option as well as bright notifications. Screen readers should be available for people who are blind, as well as accounting for guide dogs and room for a cane (if needed). Communicating with your driver if you are mute can be accomplished by using the app itself to communicate back and forth.

When encountered with a person with autism, the driver must avoid loud music (if any), as well as not using the car horn unless absolutely necessary. We must also consider that people with [dis]abilities are aware of their own capabilities and wouldn't put themselves in situations they didn't think they were capable of handling. One must also consider people with emotional disturbances, intellectual [dis]abilities, and PTSD.

In order to cater to first-year students, this app would also include a map route of the campus, similar to what is available on the TXST app. For first-generation and

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transfer students, we will make sure that the advertising and marketing for this are done well so that these students are aware of the options available for them.

In order to reach a large and diverse audience, the implementation of multiple marketing strategies is vital. Due to the large number of students on campus who come from all different backgrounds, there will be a need to utilize various channels/outlets. In order to make that happen, partnerships will need to be made with establishments around San Marcos. One in particular is the University itself. Convincing Texas State leaders that the rideshare app is worth their while will have some complications, but will be imperative to the success of the app.

Once school leaders are on board, further steps can be taken to accelerate the reputation and popularity of the app. One viable option would be support from The University Star, a campus run media outlet that uses multiple platforms such as newspapers and a digital news website. Another outlet would be university email notifications with information and updates on the app. Even though every student is required to have a school email, that does not guarantee complete recognition of the app, but could however greatly increase student acknowledgement.

Another feasible option would be posting advertisements on the TRACS website. Texas State students are consistently using this website, which could greatly increase the likelihood of gaining recognition and legitimacy. Along with that, flyers could be posted in various places around campus, in the hopes that students will take the time to read them. Posting on bathroom doors, hallway clipboards, classroom whiteboards, etc. could all be practical choices. With that being said, some students have the tendency to

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overlook flyers or find them irrelevant, leading to a disincentive to pursue the app. The way to combat this, as previously stated, is utilizing multiple platforms in order to reach diverse audiences.

Alongside all of these options, utilizing platforms such as social media is a quick and effective way to gain attention. Since one of our main target audiences is Texas State Students, which is primarily comprised of young adults, it's safe to say that a vast majority of them obtain some sort of social media. There will be a utilization of Facebook, Instagram, Twitter and Tik Tok to market the rideshare app. Posting diverse content across all platforms is imperative to keeping things interesting and engaging. Employing all of these options will aid the apps growth in demand, and as this happens, it is expected that "word of mouth" references will increase.

As with most ideas/inventions in life, it is common to expect some limitations or challenges along the way. It is important to recognize and acknowledge what these potential drawbacks could be prior to any further implementation, but no one is perfect, and things do not always go as planned. Upon dissecting the specifics of the rideshare app, a common theme recognized was a concern for safety. This particular aspect could most definitely affect the consumption/prosperity of the app. In order to positively calibrate the app to the audience, figuring out how to fix this matter is a challenge in itself. One potential solution would be having each student verified through a background check before they could join the app. That way, it bypasses the potential concern for safety and gives the app more legitimacy.

Subsequently, there is difficulty with the solution mentioned above, which is that performing a background check on each individual is both complicated and time consuming, albeit necessary. There are many social implications that comes with riding in a car with “strangers” such as being put in a scary situation or getting in an accident.

Another potential complication that could come about is the financial aspect of the app. Figuring out how to make the app worthwhile by giving incentive to consumers proposes some monetary concerns. In comparison to alternative options, the app should comprehensively save users time and money, all the while being profitable to the owner. Figuring out how revenue streams by creating cost structures is difficult with an app such as this one, that varies greatly on a daily basis.

Numerous companies offer rideshare across the town. Competitors like Uber and Lyft are taking over this market. Some strengths of using Uber and Lyft are not having to chase down a taxi or calling for a car service. These two companies make finding a ride as simple as tapping a few options on their apps. When consumers use the app, it brings up the engagement because of how quick it is to have a car arrive within minutes.

Since the customer credit card links to the app, they would not have to worry about pulling out their wallet or searching in their wallet or purse to find cash. Another strength is competitive pricing. Generally, Uber is less expensive than traditional taxis. For college students looking for car services, Uber is typically cheaper than the regular car service. Another competitor is Waze Carpool. They allow users to sign up very easy, and you do not have to send in proof of insurance to be a driver. Every car can qualify



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to become a driver for Waze too. There are no restrictions on what year your car has to be. You do not have to have a trade dress on your windshield like Uber and Lyft. When a rider uses Waze, they are carpooling with other riders based on criteria like route, how much time they'll add to your drive, and walking distance. Splitting the cost of gas can be a good thing for riders. The passengers share the price of commuting. Waze is also known to be a nonprofit program to help reduce traffic and improve the environment. They do not take a cut in your pay.

Although Uber, Lyft, and Waze have plenty of strengths, the companies have numerous amount of weaknesses. One weakness is Uber's surge pricing or Lyft's prime time pricing. Surge pricing occurs when the supply and demand for Uber are higher than average. The availability of cars can vary and how many passengers want to ride in them. If the market is intense, prices for Uber services can double or triple. As for Waze, one disadvantage is not having a company logo in their window so riders can know which car they are riding in. Passengers will know when their ride has arrived, but all it takes is for one person to be careless and enter the wrong vehicle because there are no company logo to display. Waze approves all cars; this means cars of many drivers might not meet a professional standard. Another weakness is the amount drivers have made by using the Waze app compared to Uber and Lyft. The amount of revenue made with Waze is lower than its competitors. Much like any carpool app, riding with strangers can be awkward.

## Citations

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