

MAY 2019



# AIRPORT CORRIDOR TRANSPORTATION ASSOCIATION

## INFORMATION SYSTEMS CONSULTING PROJECT

### FINAL REPORT

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# 01

## COMMUNITY PARTNER BACKGROUND

### ABOUT ACTA

The Airport Corridor Transportation Association (ACTA) is a non-profit organization located in Robinson Township, a suburb west of downtown Pittsburgh. Given the limited number of available pedestrians and bikeways, and the recurrent traffic congestions in the Airport area, ACTA's main mission is to:

*Optimize use of the transportation system in the Airport Corridor through increasing travel options, fostering economic growth, reducing congestion and improving air quality.*

Currently, ACTA is one of three transportation management associations in the Pittsburgh area, and its main service is the RideACTA shuttle. Operated by 3 official employees, ACTA serves over 80,000 rides per year. However, the organization struggles with gaining visibility and exposure for its services and would like to reach not only locals in the Airport Corridor, but also job seekers elsewhere who would like to commute to work in this area.

02

## ABOUT RIDEACTA



The main program of ACTA is RideACTA, an on-demand, flex-route shuttle service that transports people between the IKEA Super Stop and nearly 200 local businesses around Airport Corridor.

The shuttle service operates from 6am to midnight during the weekdays and 7am to 11pm on Saturday, with the cost of \$0.25 per ride. In some cases, the company pays for shuttle bus rides for their employees. By calling RideACTA Dispatch, riders are able to make reservations in advance for pickup, either from the IKEA shuttle stop or from their company. Each time, the drivers will record rider's information and plan out the routes to pick up and send everyone to the destination. Most of the riders are young employees, aged between 18 to 34, who are working for lower paying, retail, restaurant, call center, or local companies.

In mid February, ACTA released a mobile application called MicroTransit developed by a third party technology company, TransLoc Inc., to assist with the reservation and delivery system. With MicroTransit, riders are expected to make reservations online rather than calling dispatch. In addition, the app will also help with planning routes to pick up/send riders, which makes the process more efficient and effortless.

# 03

## COMMUNITY PARTNER PROJECT DESCRIPTION

### PROJECT OPPORTUNITY

As a non-profit organization with only three employees, ACTA was facing the problems of visibility, public awareness and marketing. The public should be aware of the low-cost services provided by ACTA to cater to the transportation needs of current and potential employees of businesses in the Airport Corridor. The marketing methods that ACTA adopted included placing brochures in local job centers, contacting local employers, and word-of-mouth advertising.

Although these means did attract some users, they hardly reached the potential customer groups like newcomers and people who had changed their jobs within the area.

There are many low-paying jobs in the airport area, and there is much turnover with low-paying jobs. ACTA would like to market their services to people who work in the area, people who are looking for jobs in the area, and people who want to switch jobs. The organization also wanted to cooperate with employers and job centers so that more people could know about them and the travel options they provide. For example, it would benefit ACTA if a local employer were to show their affiliation on their website. Not only would ACTA get more exposure, but the employer could also attract potential employees by introducing cheap and efficient commute options.

# 04

To figure out how to increase awareness of the RideACTA service, it was necessary to first define the target audience and figure out who they are. The majority of riders are between 18 and 34 years of age, and many work at lower paying jobs. However, ACTA did not have data on the exact demographics of riders, and we believed that collecting data on these workers would be the first step to figuring out how to target marketing and enhance exposure of the organization. Because this demographic of riders are young, they are most likely to be active on multiple social media platforms and own smartphones. Through this, one could get feedback and data from users through a quick and simple process of scanning a link with a QR code that could take the user to a webpage for entering essential demographic and/or experiential data, and then analyze that data to create more understanding of the target audience for marketing plans.

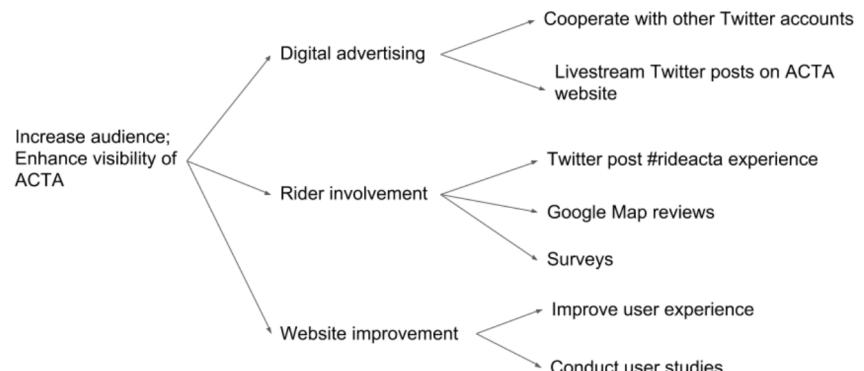
In conclusion, ACTA wanted more exposure to the people in need of transportation in the airport area and beyond. To begin this process, ACTA must find out who their target audience is and reach out to this audience with details of the services offered.

05

# PROJECT VISION

The original project goal visualized in Figure 1 was to **use digital means to increase visibility of ACTA.**

**Figure 1.** Visualization of the Project Vision and Plan



# 06

The project comprised of the following:

## DIGITAL ADVERTISING

1. Cooperate with other Twitter accounts that have many followers (e.g. Port Authority) to have them advertise for ACTA's twitter account and RideACTA service
2. Livestream Twitter posts on ACTA's website by dynamically pulling posts from Twitter and pushing them to the ACTA website

## RIDER INVOLVEMENT

1. Encourage riders to post about their ride experience on social media under the hashtag #rideacta by hosting giveaways
2. Encourage riders to leave positive reviews on Google Map by giving a small prize (like a free ride)
3. Conduct surveys via Google Forms or other platforms to collect opinions from riders and give a small prize (like a free ride) to those who finish the surveys

## WEBSITE IMPROVEMENT

1. Enhance user experience of the ACTA website by improving information architecture and featuring the RideACTA service on homepage
2. Conduct user studies on the original website and improved website to compare

# 07

The goal of the marketing plan was to help ACTA gain more visibility and public awareness. Because most riders are young people, social media would be helpful in spreading the word about ACTA.

The stakeholders of this proposal would be the current ACTA employees. The users would include current local workers, job seekers potentially looking for jobs in the Airport Corridor, and local businesses in the Robinson Township.

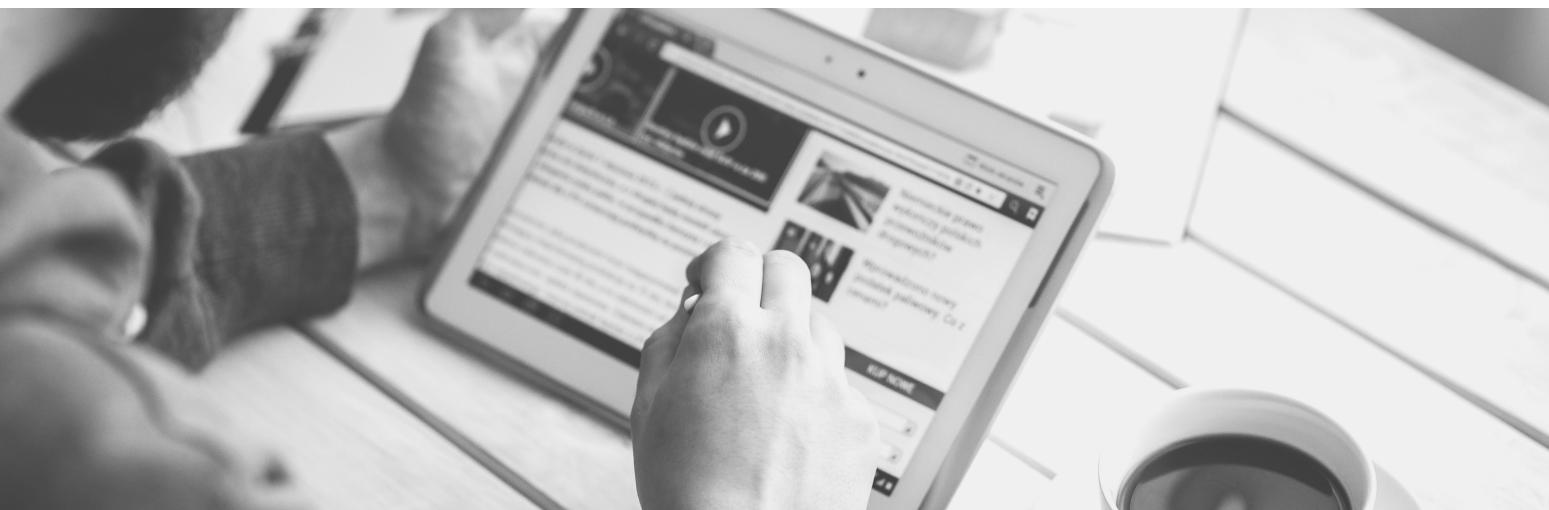
**The proposed solution would benefit the stakeholders and users in the following ways:**

1. It would help ACTA gain exposure and increase the user base, which would in turn increase funding and allow the directors to improve the organization by expanding or enhancing its current systems.
2. It would introduce a means of transportation for local workers and job seekers from outside of the area who might not have heard of RideACTA prior.
3. Businesses in the Robinson Township might gain increased interest from potential employees if they become members or partners of ACTA and are able to provide transportation for their workers.

# 08

The alternative solution was paying for mass media advertisements, such as Google search promotion, TV/radio advertisement, and website advertising. However, since these methods generally required a large budget and were not efficient in targeting potential users, none of them could be an ideal solution for ACTA due to the shortage of funding.

The proposed solution was most appropriate because it allowed ACTA to learn and expand the market with minimum funding. Furthermore, the actions were easy to upkeep and were technologically simple enough for the directors to manage as the project would aim to work with the same platform the directors were already familiar with. Most only had to be implemented once and could be automated and used over many months, such as the creation of the QR code and related survey. Lastly, as the majority of RideACTA users are young workers aged 18-34, they are most likely to own social media and might be willing to follow and stay updated on the service.



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## PROJECT OUTCOMES

# RIDER FEEDBACK FEATURE

The main outcome from our project was adding the rider feedback feature to our clients' organization's original website. Initially, we gathered the requirements from our client and came up with multiple possible solutions (Appendix A and B). To find the best solution, we conducted user interviews with 6 targeted users of our system, and collected their feedbacks (Appendix C). Given the research outcomes, three sub-features were implemented in the rider feedback page:

1. Users could leave reviews on Google Maps to get free rides
2. Users could win giveaways by following ACTA on Twitter and tweet with #rideacta
3. Users could take surveys to let ACTA know of their opinions

To preserve consistency and protect the original site, we recreated the original site on Bluehost based on the WordPress export, XML export and plugins given by the vendor. With the original color schemes and font styles being intact, our team designed and created 5 new pages to support the new features mentioned above (Appendix M).

# 10

We began with a home page to give riders an overview of the feedback feature and introduce them the three kind of events. After that, riders can navigate to subpages for free ride, twitter giveaways or survey. Additionally, a hidden Validate Free Voucher page is created for drivers to check the free ride tickets.

To simplify the management process for our clients, our team decided to use Google Drive and its subproducts to support our backend. We created two API through Google Apps Script to connect the information collection form and Validate Free Voucher page to a spreadsheet, so that our clients can manage all the ticket information in a straightforward way. In addition, we redesigned and created a digital survey via Google Forms, to help our clients analyze rider's feedbacks with better visualizations (Appendix K).

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## USER EXPERIENCE DESIGN

Our team paid great attention to user experience during the whole design process.

To begin with, considering that the targeted end users of our product are the riders, we decided to use QR code as the main entry or our website, as in outdoor scenes QR code itself may not only serve as a medium but also a self-explanatory advertisement, attracting people to explore the contents inside. It is also very easy to scan. However, given that some riders may be lack of knowledge about QR codes (Appendix L), we also added a short link to the site in our poster.

Additionally, we also conducted nine iterations of user interface designs. We started with a simple prototype with our initial idea of the functionalities, and interviewed our advisor, clients and potential users (Appendix D). Then, we made changes to the initial design each week after collecting feedbacks from the meetings and user testings (Appendix E). Besides user feedbacks, we also used digital tools like EyeQuant to measure how clean, clear, exciting and attention-grabbing our designs are (Appendix N).

## TESTING PROCEDURES



In the whole design and development process, our team conducted 3 rounds of user-involved tests. Besides the initial user research mentioned above, we also conducted user testings on our screen designs and usability tests on our final product (Appendix F and G). The outcomes from all these tests were extremely valuable to us as they reflected the real attentions and opinions of the users.

On top of that, we also conducted functional tests on our system, including testing on different devices, error messages testing and etc (Appendix H).

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# CAPACITY BUILDING

## SYSTEM DESIGN DOCUMENTATION

We have created a document explaining the design of our system and the technologies we used to build it, including Bluehost, Wordpress, Google Drive, Google Scripts API, and Github. This documentation was prepared specifically for the client's developer, NuRelm, as it includes technological explanations. We provided this so that the client's developer can access the necessary files to implement our solution into ACTA's existing website and to understand how our solution works.

## USER MANUAL

We created a user manual with step-by-step instructions for the administrators of the system, who will be ACTA's executives. The manual specifies how to complete specific actions such as managing the Free Ride Google Scripts backend, hosting a Twitter Giveaway, and creating a new survey with Google Forms. This will allow the client to complete crucial actions which will benefit their organization as well as sustain the solution for repetitive use.

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# CAPACITY BUILDING

## IN-PERSON TUTORIAL AND WORKSHOP

In addition to the user manual, we will provide the client admins with an in-person tutorial to go over the most crucial actions for the system. At the time of writing this report, we have not yet met with the client face-to-face for this tutorial and workshop session. We have a plan of tasks we will go through, which are listed below:

- A. Validate users who have written a Google Maps review in Google Sheets
- B. Gather Twitter Giveaway entries and choose a winner
- C. Create a new survey with Google Forms or edit an existing survey
- D. View results of the survey

Through these steps, the client will gain new understanding of the system and learn how to manage it to achieve beneficial outcomes. They will also be able to sustain the solution for many iterations of giveaways and surveys.

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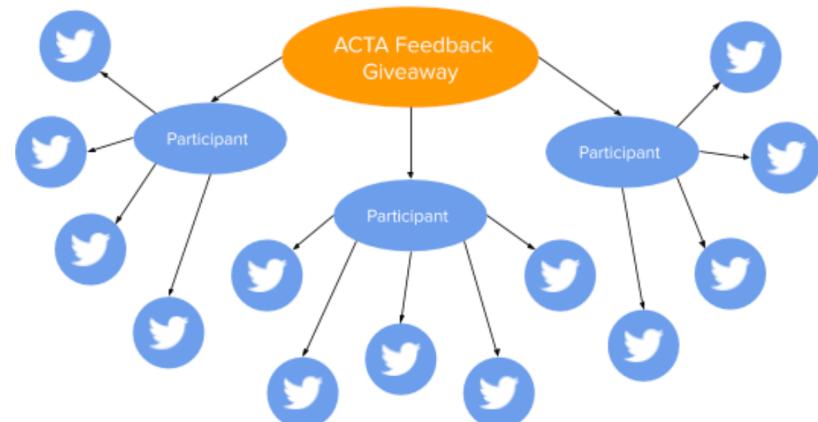
## TOP LEVEL OUTCOMES

### INCREASE EXPOSURE FOR THE RIDEACTA SYSTEM

ACTA would like to increase exposure for their service to build ridership. They would like to reach not only potential riders in the Airport Corridor, but also job seekers elsewhere.

Currently, ACTA's Twitter has 86 followers, and they mainly follow the account for traffic and other transportation updates, not for RideACTA information. Through the Twitter Giveaway action in our solution, users will be able to share their experience with RideACTA with their followers on Twitter. These Twitter users will be able to reach many more people than the 86 followers ACTA currently has, and these people will likely be within the Pittsburgh area. Thus, through the Twitter Giveaways action, information can be spread exponentially.

Expected results after the Giveaway action is implemented:



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## TOP LEVEL OUTCOMES

### GAIN KNOWLEDGE ABOUT RIDERS OF THE RIDEACTA SYSTEM

ACTA would also like to know more about the riders of their RideACTA service. Previously, all riders were manually counted by hand and recorded on paper. Since the introduction of their app in mid-February, the number of riders has been tracked through the app, but little about their demographics are known. ACTA needs to know more about who their riders are for targeted exposure and marketing. Through the survey action in our solution, ACTA will be able to ask more diverse questions to their riders and gain valuable information about them.

Additionally, all past surveys to gain rider feedback were done on paper, without normalization of answers. With the use of Google Forms surveys, answers can be normalized with choices and ACTA can easily see visual summaries of the information. Also, riders may find it easier to scan a QR code and complete an online survey than to fill out a paper survey while on the RideACTA shuttle. ACTA will be able to gain much knowledge about their riders through the survey action of our solution.

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## TOP LEVEL OUTCOMES

### INCREASE GOOGLE RATING WHILE RECEIVING VALUABLE FEEDBACK

ACTA is always looking for ways to improve their service. Through the Free Ride action of our solution, ACTA can gain valuable feedback while raising their Google Maps rating. Currently, the rating for ACTA is 3.4 with 9 reviews on Google Maps. If users are incentivised with a free ride to leave a constructive review, ACTA will be able to find ways to improve the RideACTA service and increase their rating at the same time.



# UNACHIEVED OUTCOMES

## INFORMATION TO BE GAINED

While we have finished the design, development, and testing of our solution, we will not be able to implement it before the semester ends. This means that ACTA will not be able to gain information, such as rider demographics and feedback, until after the semester ends.

Additionally, because the information will only flow in after this course ends, there is potential for data analysis to uncover important patterns or other valuable trends in the future.

## COLLABORATIONS ON SOCIAL MEDIA

Additionally, because the solution will not go live until after the course ends, the Twitter Giveaways will not start until the summer. Depending on its success, there is potential to collaborate with other Pittsburgh public transport social media accounts. This was initially something we wanted to accomplish within the course timeframe, but were not able to as we decided to focus on the design and development of our main solution. However, if ACTA can gain some success with the Twitter Giveaways, other Pittsburgh transportation organizations might pick up on the idea and have incentive to help spread the word about ACTA. Especially since the prize will be for a ConnectCard which is used on Port Authority buses, there is potential for a collaboration between ACTA and Port Authority social media accounts.

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# UNACHIEVED OUTCOMES

## IMPROVE USER EXPERIENCE OF WHOLE WEBSITE

Initially, we had wanted to design a more user-friendly layout of the entire ACTA website. The current site's information architecture is not optimal and could be improved upon. However, we realized early in the project that this was not feasible given the scope of the class and the project. Drafting a design of the existing website, given the many pages it currently has, and completing multiple rounds of user testing would have been enough as a separate project. We decided to focus on developing the original mobile-friendly Feedback pages instead as we believed it would more directly add value to the client organization's services. Thus, improving the user experience of the whole ACTA site still exists as a project opportunity.

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## FINAL PROJECT DELIVERABLES

### BLUEHOST

Bluehost gives access to our copy version of ACTA's Wordpress site. It includes the pages we developed along with much of ACTA's pages. We suggest accessing the pages through Bluehost/Wordpress rather than the Github repository, as most of the work completed was in the frontend and admin side of Wordpress rather than in the files uploaded on Github.

### GITHUB

We initially had created a repository inside the wp-content folder of our Wordpress website files. When we went to upload the whole folder of website files, there were submodule conflicts which we could not resolve. Thus, we decided to upload the other contents into a separate repo from the wp-content folder, which we updated in its existing repo.

### GOOGLE DRIVE

We created an account for ACTA to organize their surveys and manage the backend of the Free Ride system. Currently, the Drive has one folder which contains all information relating to the Free Ride action: a spreadsheet connected to the frontend listing users who completed the Google Maps review and the Google Script for the validation of one-time-use free ride vouchers. Additionally, the Drive contains a folder for all survey materials. There is currently only one survey in the folder that contains all of the questions provided to us by ACTA.

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## FINAL PROJECT DELIVERABLES

### SYSTEM DESIGN DOCUMENTATION

This document outlines the system design and is mainly for the use of ACTA's developer, NuRelm. It is included in our Deliverables folder.

### USER MANUAL

This document gives step-by-step instructions for the admin of the system to complete relevant tasks. This will most likely be used by Amy and Lynn. It is included in our Deliverables folder.

### DESIGN ITERATION SLIDES

This set of slides contains all of the design iterations since the first wireframes we created for the project, along with design specifications. There are nine iterations total and the slideshow contains images of each one.

### QR CODE POSTER

The poster contains a unique QR code link to our solution. ACTA can print out this poster to hang up on the inside of RideACTA shuttles and around the IKEA Superstop to encourage rider participation.

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## RECOMMENDATIONS

## ADVERTISE GIVEAWAY ON TWITTER



It may be difficult to introduce the Twitter Giveaways to riders through only the ACTA site, and since the giveaway will be held on Twitter, we recommend advertising the Giveaway on ACTA's Twitter account. This will encourage more people to enter the giveaway, which will also prompt more people to spread the word about RideACTA. The steps are as follows:

1

Draft an announcement.

For example, “Post a tweet about your #rideacta experience for a chance to win a \$20 ConnectCard! We appreciate all of the riders of our RideACTA Shuttle and would love to hear your feedback. Winner will be announced July 1st and you must be able to give a valid address if chosen as a winner.”

2

[Optional] To prevent text cut-off (since Twitter has a character limit), use an easy online social media post design tool to create a picture post including the text.

a. **Canva** is a free, simple tool that can create beautiful social media text posts.

3

Post the announcement on Twitter.

4

Continue to post about the giveaway throughout the time period that the giveaway is active.

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## RECOMMENDATIONS

# SOCIAL MEDIA COLLABORATIONS

An aerial photograph of Pittsburgh, Pennsylvania, showing a dense urban area with various buildings, roads, and green spaces. The image captures the city's architecture and layout from a high vantage point.

As mentioned above in the “Unachieved Outcomes” subsection, we were not able to contact other Pittsburgh transportation associations to suggest social media collaboration in the scope of this project. Thus, we recommend that ACTA take this action as it will greatly increase ACTA’s presence on social media. This will translate to an increase in ridership as other transportation associations might have a different circle of followers in the Pittsburgh area who could be potential riders of the RideACTA system. Steps to complete this action are as follows:

- 1** Contact an existing connection from another transportation association in Pittsburgh.
- 2** Send an email asking if they would be willing to advertise for RideACTA on their Twitter (or other social media) page, and that ACTA will do the same for their services.
- 3** If they agree, post about the other organization on Twitter.

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### RECOMMENDATIONS

## GOOGLE FORMS FOR SURVEYS

We recommend the continued use of Google Forms for surveys in the future. Pros of using this technology are as follows:spreadsheet  
Normalize answers into distinct categories

- User-friendly application
- Allows for creation of multiple question types
- Electronically tracks all responses
- Automatically creates visual summaries of each question's answers
- Easy to edit existing surveys
- Allows for export to continuously connected spreadsheet
- Normalize answers into distinct categories

Additionally, the use of an electronic survey as opposed to a paper survey allows for more flexibility and may encourage more riders to complete the survey. For example, a rider might not always have a writing tool on hand, and it is difficult to write on a moving bus. By providing a QR code for the survey, riders can quickly scan the code to pull up the survey and save the survey to work on when they have more time. More details on how to use Google Forms to create surveys can be found in our User Manual.

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## RECOMMENDATIONS

### USE A VARIETY OF SURVEY QUESTIONS

We recommend using a variety of survey questions to gain the most potentially helpful responses, which will help ACTA learn who their riders are and how to improve their service. Using a variety of survey questions will allow for more diverse summaries which ACTA can learn more from. Additionally, if future teams want to continue on a data analysis path, using a variety of survey questions would allow the team to gain fruitful data to conduct beneficial analyses on. More information on how to create diverse questions can be found in the [Google Forms help documentation](#).

### PRINT AND POST QR CODE POSTER

We have created various QR code poster designs as part of our project, and we suggest printing out and posting the preferred design inside of RideACTA shuttles and around the IKEA Superstop after the Rider Feedback section of the site has gone live. This will increase rider participation in the feedback actions on the website. Steps to do so are as follows:

1. Locate the poster in the Deliverables folder.
2. Print out the poster in color.
3. Post the posters inside the RideACTA shuttle and around the IKEA Superstop.

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## RECOMMENDATIONS

# EMAIL RIDERS THROUGH THE APP

If it is possible to gather emails of users on the MicroTransit app with their consent, we recommend emailing the riders about the Rider Feedback actions after the solution has been fully implemented. This will result in more riders completing the feedback actions which will allow ACTA to increase exposure of their RideACTA service. The steps to complete this action are below:

- 1** Check to see if users have their emails collected with consent through the app.
- 2** If not, get in touch with the app developers for the MicroTransit app, and ask if they can implement a checkbox for receiving emails during sign up for the app. Only continue if this is possible.
- 3** Compose an email containing the link to the website.
  - a. For example: “Interested in a free ride or a chance to win a \$20 ConnectCard? Click the link to learn how to participate through sharing about your experience! We appreciate all of the riders of our RideACTA Shuttle and would love to hear your feedback.”
- 4** Send the email to all emails collected through the app.

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# MOVING FORWARD

## UNIMPLEMENTED USER STORIES

As mentioned in the Unachieved Outcomes subsection above, we were not able to complete improvement of the design of ACTA's overall website. Redesigning the information architecture layout of the website along with improving the user experience could consist of a separate project by itself because ACTA's site has many pages and there is a lot of information to organize. This will also likely require many rounds of user testing. Thus, future teams might see this as a viable way to carry the project forward, if the client sees this as important.



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## EXTENSION OF THE CURRENT SURVEY SOLUTION

Through the creation of more complex surveys which involve a variety of different questions (multiple choice, short answer, checkboxes, numerical, long answer, etc), there may be information to be gained by using data analysis methods on the survey answers. Currently, there are only three questions and they are a simple “Rate 1-5” type. At face value, the summaries provide some information to ACTA (how much riders like RideACTA, the app, etc). However, if more complex questions involving demographics, travel distance, neighborhoods, travel time, etc, are asked, more complex data analysis algorithms created outside of Google Forms could provide potentially stronger results for ACTA to act upon. For example, if enough data is gathered through the surveys, analyses could be conducted so ACTA could see where riders are most often picked up, the average wait time for different pickup locations, whether there is a relationship between satisfaction with the service and travel distance, etc. This would provide much more helpful information than the current simple survey setup we have currently, and would be a good way for future IS teams to move forward if they have experience with data analysis.

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## SUGGESTIONS AND ADVICE TO FUTURE TEAMS

1

Work with Advanced Custom Fields wherever there is information in the admin backend that the client is likely to edit themselves. Our solution did not include many of these opportunities, so we created most of the website using custom HTML blocks.

2

After much research, we found that Bluehost is one of the cheapest option as a hosting server and very easy to use as it has a lot of documentation. Initially, we purchased a 12-month option since the only options were 1, 12, 24, and 36 months in the beginning. However, it was possible to switch to a slightly cheaper 3-month term after talking to customer support. If the future project involves working with Wordpress, Bluehost is a good option for a hosting server and it allows for easy collaboration between developers.

3

When work is required on the backend Wordpress files and not just the Wordpress admin side, FTP (file transfer protocol) is the easiest way to access these files through Bluehost. We recommend using Filezilla because it is the most popular FTP application and is very easy to set up.

4

If the future team decides to continue with the Survey solution and there are not a lot of responses initially, go down to Airport Corridor to encourage people to take the survey. People are more likely to help when asked in-person. Posting QR codes of the survey would also be a possible course of action to gain more responses.

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## ABOUT THE TEAM

### WANLING DING

Wanling was the project manager and designer on the team. She took lead on user interface design and user testing. Wanling is a junior majoring in Information Systems with a minor in Human-Computer Interaction. She is interested in user experience design and research, and is looking to pursue a career in product design.

### JOIE FENG

Joie was the client relationship manager and developer of the project. She took lead on implementing the design in code and working with the Wordpress admin side. Joie is a junior majoring in Information Systems with a double major in Statistics.

### CHELSEA CUI

Chelsea was the quality assurance lead and developer of the project. She took lead on functional testing and the implementation of Google Script API . Chelsea is a junior majoring in Information Systems with a double major in Statistics & Machine Learning. She has great interests in using her software development and data mining skills to facilitate innovations and solve real-word problems.

# 3 1

## APPENDICES

- A. USER STORIES
- B. SAMPLE SLIDES FOR PROBLEM DISCOVERY
- C. USER RESEARCH PROTOCOL AND RESULTS
- D. INITIAL PROTOTYPE
- E. WIREFRAMES FROM DIFFERENT ITERATIONS
- F. USER TESTING PROTOCOL AND RESULTS
- G. USABILITY TESTING PROTOCOL & RESULTS
- H. SAMPLE FUNCTIONAL TESTING CASES
- I. SYSTEM DESIGN DOCUMENTATION
- J. USER MANUAL
- K. PAST SURVEY AND CURRENT SURVEY
- L. QR CODE POSTER
- M. SCREENSHOTS OF THE SOLUTION
- N. SAMPLE EYEQUANT RESULT
- O. ALTERNATIVES

## Appendix A: User Stories

Priority Level	As a(n)...	...I want...	...so that I can...
Essential	Administrator of ACTA	To learn about the riders' opinions about RideACTA	Provide better service to suit their needs
Essential	Administrator of ACTA	Reach more potential riders of RideACTA	Market to them and increase our user base
Essential	Job seeker who doesn't own transportation	Learn about low cost public transportation in Robinson Township	Look for employment opportunities in that area
Essential	Rider	Post my experience with RideACTA on social media	Let my friends know of this service
Non-Essential	Administrator of ACTA	To contact local employers	Market ACTA's services to them and cooperate with them to increase exposure and ridership
Nice-to-have	Employer in the Airport Corridor	Know about a cheap and efficient way for my employees to commute to my site	Increase the number of potential employees and benefit my current employees

## Appendix B: Sample Slides for Problem Discovery

**Target Customer**

- Employees from local lower paying, retail, restaurant, call center,
- Employees from nearby ho, Upmc facility
- Younger ppl use shuttles 18-34

**Current Workflow**

```

graph LR
    A((Wait at IKEA Stop  
or  
Call for Dispatch Request)) --> B((Driver Records Destination))
    B --> C((Driver Decides Route))
    C --> D((Arrives at Destination))
  
```

3
4

**Workflow after App Alive**

```

graph LR
    A((Wait at IKEA Stop  
or  
Make Pickup Request Online)) --> B((Driver Follows App))
    B --> C((Arrives at Destination))
  
```

**Media**

- Official Website
- Twitter
- Microtransit App

5
6

**Customer Feedback**

- Google Map Review
- Survey
- Social Media

**Google Map Review (4)**

- Negative Keywords:
  - Late pickup
  - Miss connection
  - Night time service
- Even though there are not many reviews, the overall rating is influenced => may bring negative impressions for people searching for ACTA.
- Since these reviews are voluntary, possibility of bias needs to be considered

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**Survey**

- Conducted twice a year
- Most of them are positive feedbacks?
- How many responses?

**Social Media - Twitter**

[Link to Problem Discovery slides \(also included in project deliverables\)](#)

## Appendix C: User Research Protocol and Results

### Protocol

#### **Stakeholders:**

Riders - people who use RideACTA service

- Needs: Better ride experience and improvement of service
- Goals: Get some prize and give feedback to ACTA

ACTA staff - people who run RideACTA

- Needs: Spread the word about ACTA and get feedback from riders
- Goals: Increase ridership

#### **Questions for riders:**

1. Do you use social media?

a. **If yes:**

- i. What kind of social media do you use?
- ii. Do you use Twitter?

1. **If yes:**

- a. What is the main purpose for you to use Twitter?
- b. What kinds of accounts do you follow?
- c. How many times a day do you check your feed?
- d. How often do you tweet/retweet on your account?
- e. How many people follow you? Are they your friends, family or strangers?
- f. Do you interact with your followers a lot?

- iii. What type of stuff do you usually post on social media?

- iv. How often do you post on social media?

- v. Have you ever expressed opinions or left feedback about a service or product on social media?
  1. **If yes:** What for?
  2. **If no:** Why?

- vi. How do you usually access social media? (phone, laptop, tablet, etc)

1. **If phone/tablet:** Do you use the app or do you use safari/chrome?

2. Have you ever scanned a QR code?

a. **If yes:**

- i. What did you use to scan it?
- ii. How easy in your opinion (1-10) was it to scan the QR code?
- iii. Do you scan QR codes often?
- iv. Do you prefer QR codes or short links?

b. **If no:**

- i. If you've seen a QR code, what stopped you from scanning it?

3. Do you know of sweepstakes/giveaways?

4. Have you ever participated in a sweepstake or giveaway on social media?

a. **If yes:**

- i. What was the prize?
  - ii. What social media platform was it on?
  - iii. What was the form of entry?
  - iv. How easy in your opinion (1-10) was it to enter?
  - v. What was the incentive for you to enter?
- b. If no:**
- i. If you've seen one, what prevented you from entering?
5. What is the minimum prize for an online social media giveaway you'd consider entering?
  6. Imagine you have to pay \$0.25 per bus ride every day. By leaving a review for the bus service, you can get one free ride. Would you do it?
    - a. If no:**
    - i. Why not?
    - ii. What prize will make you consider leaving your review?

[\*\*Link to User Research Protocol\*\*](#) (also included in project deliverables)

## Results (One Example)

### Student

#### Summary:

- User uses Twitter only to follow idols and see pictures of drawings
- User doesn't post/repost
- User thinks a free ride is not very attracting, at least a week's free rides

#### Questions for riders:

1. Do you use social media?

a. If yes:

- i. What kind of social media do you use?
  - 1. Instagram, Twitter

ii. Do you use Twitter?

1. If yes:

- a. What is the main purpose for you to use Twitter?
  - i. Follow idols and see posts of drawings
- b. What kinds of accounts do you follow?
  - i. Painters and idols and related accounts
- c. How many times a day do you check your feed?
  - i. Several times/week
- d. How often do you tweet/retweet on your account?
  - i. Never
- e. How many people follow you? Are they your friends, family or strangers?
  - i. 10+, strangers
- f. Do you interact with your followers a lot?
  - i. No

iii. What type of stuff do you usually post on social media?

1. No

iv. How often do you post on social media?

v. Have you ever expressed opinions or left feedback about a service or product on social media?

1. If yes: What for?

- a. Yes, repost others' feedback

2. If no: Why?

vi. How do you usually access social media? (phone, laptop, tablet, etc)

1. If phone/tablet: Do you use the app or do you use safari/chrome?

- a. Phone, apps

2. Have you ever scanned a QR code?

**a. If yes:**

- i. What did you use to scan it?
  - 1. Inside the app
- ii. How easy in your opinion (1-10) was it to scan the QR code?
  - 1. 10
- iii. Do you scan QR codes often?
  - 1. Not very often
- iv. Do you prefer QR codes or short links?
  - 1. QR codes

**b. If no:**

- i. If you've seen a QR code, what stopped you from scanning it?
3. Do you know of sweepstakes/giveaways?
- a. Yes
4. Have you ever participated in a sweepstake or giveaway on social media?
- a. If yes:
    - i. What was the prize?
    - ii. What social media platform was it on?
    - iii. What was the form of entry?
    - iv. How easy in your opinion (1-10) was it to enter?
    - v. What was the incentive for you to enter?
  - b. If no:
    - i. If you've seen one, what prevented you from entering?
      - 1. Never repost on Twitter
5. What is the minimum prize for an online social media giveaway you'd consider entering?
- a. Pictures/concert tickets of idols
6. Imagine you have to pay \$0.25 per bus ride every day. By leaving a review for the bus service, you can get one free ride. Would you do it?
- a. If no:
    - i. Why not?
      - 1. Only \$0.25
    - ii. What prize will make you consider leaving your review?
      - 1. A week's free rides

[Link to User Research Results](#) (also included in project deliverables)

## Appendix D: Initial Prototype

**Mobile website wireframes**

1

2

3

4

**Wireframe 1: Promotional Landing Page**

Help ACTA spread the word and receive a **GIFT** from us!

- Post on Twitter to win an Amazon gift card!
- Review on Google Map for a free ride!
- Finish a survey to win a free ride!

**Wireframe 2: Twitter Post Step**

Step 1: Post on Twitter

Step 2: Done

Can take to external Twitter mobile app of users
 

- Problem: what if they don't use the hashtag?

Can possibly find way to access Twitter directly on this website using API so that all posts will be automatically hashtags #rideACTA

**Wireframe 3: Google Map Review Step**

Step 1: Write a Review

Step 2: Enter your email...

Step 3: Submit

Share your experience with others on Google Map and get a **FREE RIDE**

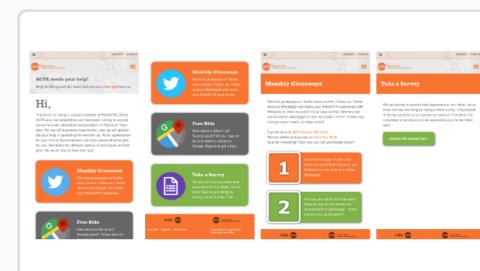
**Wireframe 4: Review Submission Step**

Thank you for sharing your opinion! A free ticket will be sent to your email in 24 hours.

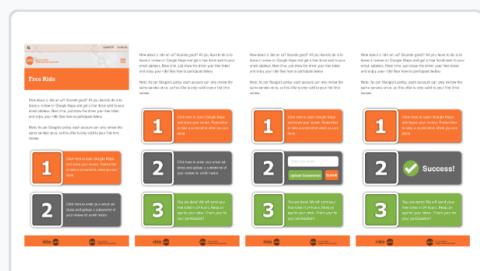
Done

[Link to Initial Prototype slides](#) (also included in project deliverables)

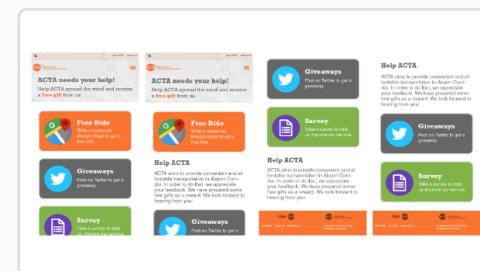
## Appendix E: Wireframes from Different Iterations



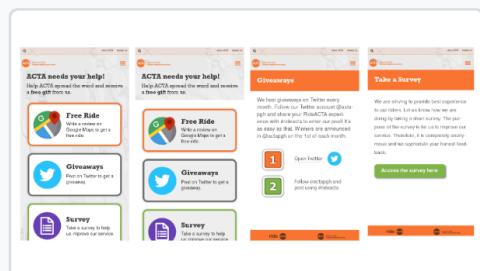
4



5



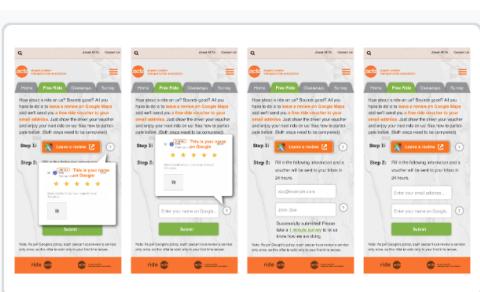
7



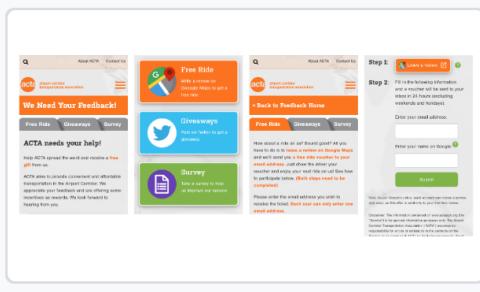
8



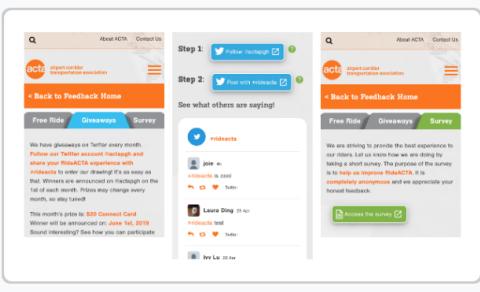
25



26



28



29

[Link to Wireframes slides](#) (also included in project deliverables)

## Appendix F: User Testing Protocol and Results

### Protocol

Hello, thank you for coming! We would like you to go through the following sequence of tasks using this system. While you are going through these tasks, we would like you to tell us anything that you think, feel, do or look. Essentially we would like you to “think aloud” as you go through the system. **In particular, we want you to tell us what is the first thing you see on each screen.** Do you have any questions?

[If they don't know what think aloud is, explain.]

[If you need to do audio recording, let them know and get approval. Tell them it would only be used for note taking purposes and won't be distributed in any way.]

First we would like you to choose between these two screens.

**[Show first screen] What is the first thing you see on this screen?**

**[Show second screen] What is the first thing you see on this screen?**

**Which one do you like better and why?**

[Now show the prototype with the screen they chose.]

OK. Here are the tasks we would like you to do:

1. Leave a review on Google Maps to get a free ride.
2. Participate in a Twitter giveaway.
3. Take the survey.

[Note-taking and maybe audio recording about what happens. Observe their behavior and write down what they do for each step. Do they behave as expected or is there any problem? Particularly note any part that they are confused about or that takes longer time than expected. Also note if they read texts or not and which texts they read. **Remind them if they forget to say what is the first thing they see on the screen and if they forget to think aloud.**]

Thank you for testing our system. We have a few questions for you now.

1. **What did you like most about our system?**
2. **What did you like least about our system?**
3. **How can we improve our system?**
4. **Would you use our system in real life? Why or why not?**
5. **Do you have any other thoughts that you would like to share about our system?**

That concludes our interview. Thank you for your time.

[Link to User Testing Protocol](#) (also included in project deliverables)

## Results (Summary)

[Prototype with texts at the top](#)

[Prototype with texts in the middle](#)

User Testing Summary (6 users in total):

- Homepage
  - 4 users preferred texts at the top
    - All the buttons are together
  - 2 users preferred texts in the middle
    - Texts stand out and force users to read them
    - When texts are at the top, they just skip them
- Google Maps
  - Google name is confusing - how to phrase it?
    - 1 user suggested to highlight it in the screenshot of step 2
  - Don't want to go back and forth between the tabs - make steps easier
  - 2 users mentioned the open button did not look clickable
    - 2 users suggested to move open outside of the button
  - 2 users thought the screenshot in step 2 was clickable
  - ACTA rating is very low
    - Explicitly write out that you need to give 5 stars - please don't forget to give us 5 stars if you like our service
- Twitter
  - When open Twitter, directly open ACTA's page for users to follow
    - After posting, users don't want to search and follow themselves
    - Follow is easier as it's only one step; posting needs thinking
- Survey
  - No problem
- Like
  - Colors and buttons
- Dislikes
  - Had to go back and forth between tabs - no more than 2 back and forths
  - Grey color for twitter is not prominent
- To improve
  - Make google maps steps fewer and easier - no more than 3 steps
  - Example post for twitter
  - Put the form of email and name at the top
  - Put \$20 on the homepage to trick people in
  - Put surveys in the end of twitter and google map but don't imply it's one of the steps
  - Make bolded texts all orange

[Link to User Testing Results](#) (also included in project deliverables)

## Appendix G: Usability Testing Protocol & Results

### Protocol

Hello, thank you for attending! The purpose of this study is to help us improve a website that we are building. Results will be used for the purposes of the project only and no personal information will be shared. We would like you to go through the following sequence of tasks using this website. While you are going through these tasks, we would like you to speak out loud anything that you think or feel about the task and interface. Essentially we would like you to "think aloud" as you go through the system. Remember that we are testing the website, not you. Do you have any questions?

[If they don't know what think aloud is, explain.]

[If you need to do audio recording, let them know and get approval. Tell them it would only be used for note taking purposes and won't be distributed in any way.]

First we would like you to choose between these two screens.

**[Show the 2 nav designs, show them the home page and subpages] What do you think about the navigation design? Which one would you prefer and why?**

OK. Here are the tasks we would like you to do:

[They need to finish the whole task! They can delete the posts later. The first step must be using their own phones (to see if they know how to scan).]

1. Scan the QR code or use the short url to go to the website.
2. Leave a review on Google Maps to get a free ride. [Note: Can't use Andrew account]
3. Participate in a Twitter giveaway.
4. Take a survey.

[Note-taking and maybe audio recording about what happens. Observe their behavior and write down what they do for each step. Do they behave as expected or is there any problem? Particularly note any part that they are confused about or that takes longer time than expected. Also note if they read texts or not and which texts they read.]

Thank you for helping us improve our rider experience feedback site. We have a few questions for you now.

1. What did you like most about our website?
2. What did you like least about our website?
3. How can we improve our website?
4. Would you use our website in real life? Why or why not?

That concludes our test session. Thank you for your time.

[Link to Usability Testing Protocol](#) (also included in project deliverables)

## Results (One Example)

- 1. Scan the QR code or use the short url to go to the website.**
  - a. I see the orange color because it's bright
  - b. Then i see "How to Scan"
  - c. I look at iphone users and since I'm an iphone user so i follow the instructions
  - d. I open my camera and use that to scan the QR code
  - e. I click on the link and am directed to the website
  - f. I don't see the green part until later
- 2. Leave a review on Google Maps to get a free ride. [Note: Can't use Andrew account]**
  - a. I see the orange block on the home page and it catches my eye
  - b. I click it because I recognize Google Maps logo
  - c. I'm redirected to a page and read "Step 1"
  - d. I see the orange button and it catches my eye
  - e. I click "Leave a Review"
  - f. I see "sign in google account" and I'm annoyed because I can't remember my google account information
  - g. I'm prompted to protect my account and I skip that
  - h. I see 5 stars and read "share details of your own experience at this place"
  - i. I click on the 5th star and the stars turn gold so I click on post
  - j. There is an ad for community events (confusing) and I click no thanks
  - k. I see the Google Maps ACTA location
  - l. Did not notice step 2
  - m. I read the directions in step 2
  - n. I enter my email into the email slot
  - o. I read "enter my name on google" and am not sure what to do
  - p. I see the note: each account can only review once...
  - q. I enter a name which I assume is associated with my Google account (my own name)
  - r. I submit and see "Successfully submitted!"
  - s. I see the green link to participate in a survey
  - t. I click it and the survey enters into another page
  - u. I read the questions and at first am not sure what 1 and 5 mean, until I read the descriptions next to the numbers
  - v. I submit the survey and see an option to submit another response
  - w. I am confused by the colors (links on survey are green, survey is orange, link to submit another response is blue)
  - x. I don't know which to do and decide to close the window to go back to ACTA's page

**3. Participate in a Twitter giveaway.**

- a. I scroll down because I don't see anything about Twitter
- b. I see the blue bird and click into it because I recognize the logo
- c. I don't look at the top blurb
- d. I see step 1
- e. I click the follow button and notice I need to follow this account
- f. I'm redirected to the Twitter app and I click follow
- g. After I see three suggestions to follow more people
- h. I assume I've already participated
- i. Did not notice step 2
- j. I go back to Safari app to see step 2
- k. I click the button with the hashtag
- l. I'm redirected to page with text box pre-filled with the hashtag
- m. I wonder if I even need to write anything and kind of want to just tweet with the hashtag
- n. I type out the review and tweet
- o. I go back to safari (ACTA's page)

**4. Take a survey.**

- a. I skim the blurb at the top
- b. I usually don't read large paragraphs so I see the green button and click on it
- c. I see the same page pop up as I did before (in twitter giveaways)
- d. I think "why should I do it again?"
- e. I wonder why it's the same survey
- f. I don't want to do it again since I already did it in the giveaways step
- g. (as a user I would definitely not do this again)

**1. What did you like most about our website?**

- a. I like the 3 buttons on the home page because they stick out a lot to me and look aesthetically pleasing.

**2. What did you like least about our website?**

- a. The search bar at the very top was confusing and I think the website would look better if the screen started with ACTA's logo.

**3. How can we improve our website?**

- a. Change the screen to omit the search bar

**4. Would you use our website in real life? Why or why not?**

- a. No - I don't like to do surveys and other tasks where I have to give reviews, so unless I had a lot of time, I would not do so.

**SUMMARY:**

1. User was confused about the survey being the same after submitting info in the Google Maps page and the Survey page
  - a. User expressed negative opinions and said if they saw this as a rider they would not want to do the same survey twice
  - b. This may or may not be an issue (both of my users brought this point up) since we are currently “forcing” users to complete both Twitter and Survey tasks - maybe in real life, users will be likely to only complete one of these tasks (ex: if they are more into entering a giveaway VS just giving feedback)
2. User often did not read the blurb or only skimmed blurb at top, and forgot that there are two steps to both Google and Twitter actions
  - a. User had to be reminded that there was another step awaiting them (got stuck here)
  - b. User then went back to Safari to complete second step
3. User did not see the (?) hint button for the Google Name entry bar, and instead guessed that their actual name would be the one associated with their google account
  - a. This seems like common behavior if the user does not know what a “Google Name” is, so should we note to Lynn and Amy that the name just has to be a close match for the free ticket voucher?
  - b. We could also bring back the image under the step 2 indicating where the user can find their Google Name (as the (?) might be easier to miss than an image)

[\*\*Link to Usability Testing Results\*\*](#) (also included in project deliverables)

## Appendix H: Sample Functional Testing Cases

-	Requirement Description	Scenario	User Role	Priority	Test Steps	Expected Result
All Pages	All contents and elements should be organized in a meaningful way and have a consistent style matching the main site.	Visiting the site from PC/laptop browser	End user	1	1. Open the site from a PC/laptop browser. 2. Check the contents and elements 3. Check the navigation, header and footer existing in the main site are still functioning and in the proper places	All contents and elements should be organized in a meaningful way and have a consistent style matching the main site.
	All contents and elements should be mobile responsive in a meaningful way.	Visiting the site from mobile devices/devices with small screen	End user	1	1. Open the site from the browser on a mobile device. 2. Check the contents and elements	All contents and elements should be mobile responsive in a meaningful way.
	The page layout should be consistent through all common browsers.	Visiting the site from visitor's preferred browser	End user	2	1. Open the site with several commonly used browsers (e.g. Chrome, Firefox, Safari) 2. Check if the layout matches the design	The page layout should be consistent through all common browsers.
	There is a button leading user to the free ride page	Visiting home page	End user	1	1. Open the home page 2. Check if there is a button linking to free ride page 3. Click on the button	The link should take user to the free ride page
	There is a button leading user to the twitter giveaway page	Visiting home page	End user	1	1. Open the home page 2. Check if there is a button linking to twitter giveaway page 3. Click on the button	The link should take user to the twitter giveaway page

-	Requirement Description	Scenario	User Role	Priority	Test Steps	Expected Result
Free Ride	There should be a modal helping user understand what a google name is	Filling step 2 from PC/laptop browser	End user	1	1. Open the free ride page 2. Check if there is a green icon next to the google name label 3. Click on the icon	A modal showing what google name means should pop up; user should be able to close it by clicking on the close button
	There should be a modal helping user understand what a google name is	Filling step 2 from mobile browser	End user	1	1. Open the free ride page 2. Check if there is a green icon next to the google name label 3. Click on the icon	A modal showing what google name means should pop up; user should be able to close it by clicking on the close button
	Duplicated email should not be submitted	Filling step 2 from PC/laptop browser	End user	1	1. Open the free ride page 2. Fill in a email that has not been used and a proper google name 3. Submit the form 4. Refresh the page 5. Fill in the email in step 2 again and a proper google name 6. Click "submit" button	The form should not be submitted and there should be a meaningful prompt reminding user that the email has been used
	Duplicated email should not be submitted	Filling step 2 from mobile browser	End user	1	1. Open the free ride page 2. Fill in a email that has not been used and a proper google name 3. Submit the form 4. Refresh the page 5. Fill in the email in step 2 again and a proper google name 6. Click "submit" button	The form should not be submitted and there should be a meaningful prompt reminding user that the email has been used
					1. Open the free ride page	The button should disappear and a message showing that

[Link to Functional Testing Cases](#) (also included in project deliverables)

## **Appendix I: System Design Documentation**

[Link to System Design Documentation](#) (also included in project deliverables)

## **Appendix J: User Manual**

[Link to User Manual](#) (also included in project deliverables)

## Appendix K: Past Survey and Current Survey

### Past Survey (August 2017)

Revised 08/25/15



#### RideACTA Shuttle Service Survey Results August 2017

RideACTA distributed shuttle service surveys to its riders during August 2017. 69 completed surveys were collected.

##### Question 1:

###### How often do you ride the shuttle?

1 day/week:	1%
2-3 days/week:	3%
4-5 days/week:	93%
Other/ how often:	3%

###### Other/how often response:

- 6 days/week

##### Question 2:

###### How long have you been riding the RideACTA shuttle?

Less than 3 months:	29%
4-12 months:	26%
More than 1 year:	45%

##### Question 3:

###### What neighborhood do you travel to and/or from?

###### Responses included:

Allegheny City	Donora	Monroeville	Stowe
Allentown	Downtown Pittsburgh	Mt Lebanon	Turtle Creek
Avalon	East Liberty	Mt Oliver	Verona
Baldwin	Fineview	Mt Washington	West End
Beechview	Forest Hills	Northside	West Mifflin
Bloomfield	Hill District	Oakland	Wilkinsburg
Boggs Ave	Homewood	Penn Hills	Wilkins Township
Braddock	Ingram	Regent Square	
Carnegie	Jefferson Hills	Shadyside	
Coraopolis	McKees Rocks	Sheraden	
Crafton	Millvale	Springdale	

Revised 08/25/15

**Question 4:**

**How long does it take you to get from your home to work each day?**

Less than 1 hour:	20%
1-2 hours:	61%
More than 2 hours:	19%

**Question 5**

**How many people live in your household?**

1:	25%
2:	25%
3:	31%
4:	9%
5:	6%
6:	2%
7:	2%

**Question 6:**

**What is your annual household income?**

Less than \$25,450:	44%
Less than \$29,050:	14%
Less than \$32,700:	8%
Less than \$36,300:	6%
Less than \$39,250:	6%
Less than \$42,150:	16%
More than \$45,050:	6%

**Question 7:**

**Please check all that apply, in your opinion, about RideACTA**

RideACTA is usually on-time:	69%
RideACTA is easy to use:	67%
RideACTA is convenient and affordable:	72%
RideACTA is necessary for me to get to work:	84%
I use the RideACTA app to check the location of the shuttle:	8%
The Port Authority bus is usually on-time:	30%

**Which Port Authority route do you use?**

28X:	71%
29:	9%
24:	10%
G2:	10%

Revised 08/25/15

#### **Additional comments about RideACTA**

- Shuttle should run to Carnegie a little later.
- Alfonso is one of you guys good workers along with a few others, however at night they are never on-time unless it's Rocky or Mark. The others are rude if they even show up.
- Drivers aren't on-time in the evening to make bus home. I get off at 6 and home at 8:30 – 9 pm due to bus. Dispatch is rude i.e. Jennifer. Bus smells, never clean.
- Poor communication.
- Good
- There should be closer stops to downtown since the Carnegie stop only runs until 8:35 or extend the time. Ikea stops are not reliable. Also need more drivers on the weekends.
- I would like more afternoon and evening service from my job.
- A dedicated route would be nice. People who pay more demand it.
- Need more times for EGS stops.
- EGS needs more time on the schedule.
- Thank you for the ride.
- This is great! People don't have to walk.
- The drivers are friendly and always try to get everyone to work safely and on time!
- Great service. Drivers are always pleasant. Thank you!
- I should not have to ask the shuttle driver to turn on the air-conditioning when it is 85 degrees outside.
- Awesome friendly drivers.
- They don't like to be on time or don't show at all.
- Not usually on time. Other person have to be ridden at work. Could use more buses on the weekends.
- Good service.
- Service after 5 pm is extremely terrible. Mark is the only driver after 5 pm that's reliable and on time. The driver with the fraternity tat on his left forearm is extremely unprofessional and terrible driver.
- There should be more than one shuttle on Sundays. All buses should have seat belts. The shuttle should run later on Sundays.
- Doesn't drive safely and never on time. Yesterday I got on the shuttle before 8:30 and didn't get to work until 8:55.
- Routes are all over the place. Always late – can't even write clear the AM driver for IBEX drives too fast.
- Sunday service is terrible with time to get to work and especially Sunday evening. Driver don't want to come – always say they got to go at 5:00ish.
- Drivers are very rude. Never on time especially on weekends. Very reckless drivers.
- I wish there was a quicker way to request a bus.
- Dispatch very unfriendly!!! Never on time on weekends!!
- Don't think it is fair to have RideACTA run just off the 28 bus due to its always late in the morning and make other rides late to work that do not take the 28 bus.
- I think ACTA shuttle does a "wonderful" job – the service is appreciated and necessary to get to work. Great job!!!
- Sometimes when getting off the 28X we have to wait 15 minutes for ACTA to get here.
- RideACTA is an awesome service with awesome drivers that do a great job. Need the shuttle to get to work.
- Some people with the ACTA service just don't care about the customers which I believe to be selfishness. Never really responsive some drivers.
- Shuttle service is a nice service!

## Current Survey

### RideACTA survey

Hi, we need your feedback! Please answer 3 questions below.  
(Completely anonymous and takes less than 1 minute!)



**Do you agree to the following?**

RideACTA makes my commute easier.

1	2	3	4	5
---	---	---	---	---

Strongly Disagree      Strongly Agree

I could not get to work without RideACTA.

1	2	3	4	5
---	---	---	---	---

Strongly Disagree      Strongly Agree

I always use the RideACTA Microtransit app.

1	2	3	4	5
---	---	---	---	---

Strongly Disagree      Strongly Agree

**SUBMIT**

[Link to Survey](#)

## Appendix L: QR code Poster



[Link to poster image](#) (also included in project deliverables)

[Link to poster Adobe Illustrator file](#) (also included in project deliverables)

[Link to QR code image](#) (also included in project deliverables)

## Appendix M: Screenshots of the Solution

### Home Page

The screenshot shows the ACTA website homepage. At the top, there is a navigation bar with a search icon, 'About ACTA', and 'Contact Us'. Below the navigation is the ACTA logo ('acta airport corridor transportation association') and a map of the Airport Corridor. A large orange banner with the text 'We Need Your Feedback!' is prominently displayed. Below this, three buttons are visible: 'Free Ride', 'Giveaways', and 'Survey'. The 'Free Ride' button is highlighted. To the right of the banner, there is a message encouraging users to spread the word and receive a 'free gift'. Below this message, there is another section with the text 'ACTA needs your help!' and a similar message about spreading the word and receiving a 'free gift'. On the left side of the main content area, there is a box titled 'Free Ride' with a Google Maps icon and the text 'Write a review on Google Maps to get a free ride.' On the right side, there are two more boxes: one for 'Giveaways' with a Twitter icon and the text 'Post on Twitter to get a giveaway.', and one for 'Survey' with a document icon and the text 'Take a survey to help us improve our service.'

Help ACTA spread the word and receive a **free gift** from us.

ACTA aims to provide convenient and affordable transportation in the Airport Corridor. We appreciate your feedback and are offering some incentives as rewards. We look forward to hearing from you.

**We Need Your Feedback!**

**Free Ride**

Write a review on Google Maps to get a free ride.

**Giveaways**

Post on Twitter to get a giveaway.

**Survey**

Take a survey to help us improve our service.

## Free Ride Page

How about a ride on us? Sound good? All you have to do is to [leave a review on Google Maps](#) and we'll send you a [free ride voucher to your email address](#). Just show the driver your voucher and enjoy your next ride on us! See how to participate below. (**Both steps need to be completed**)

Please enter the email address you wish to receive the ticket. **Each user can only enter one email address.**

**Step 1:** [Leave a review](#)

**Step 2:** Fill in the following information and a voucher will be sent to your inbox in 24 hours (excluding weekends and holidays).

Enter your email address:

Enter your name on Google:

**Submit**

Note: As per Google's policy, each account can review a service only once, so this offer is valid only to your first time review.

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## Twitter Giveaways Page

The screenshot shows a website for the Airport Corridor Transportation Association (ACTA). At the top, there's a navigation bar with links to 'About ACTA' and 'Contact Us'. Below the navigation is the ACTA logo and name. A large orange button labeled '< Back to Feedback Home' is visible. Below this, there are three tabs: 'Free Ride', 'Giveaways' (which is selected), and 'Survey'. A text block explains the monthly giveaway: 'We have giveaways on Twitter every month. Follow our Twitter account @actapgh and share your RideACTA experience with #rideacta to enter our drawing! It's as easy as that. Winners are announced on @actapgh on the 1st of each month. Prizes may change every month, so stay tuned!' It also mentions the current prize: '\$20 Connect Card'. The page ends with two steps for participation: 'Step 1: Follow @actapgh' and 'Step 2: Post with #rideacta'.

**Step 1:** [Follow @actapgh](#) ?

**Step 2:** [Post with #rideacta](#) ?

See what others are saying!

#rideacta

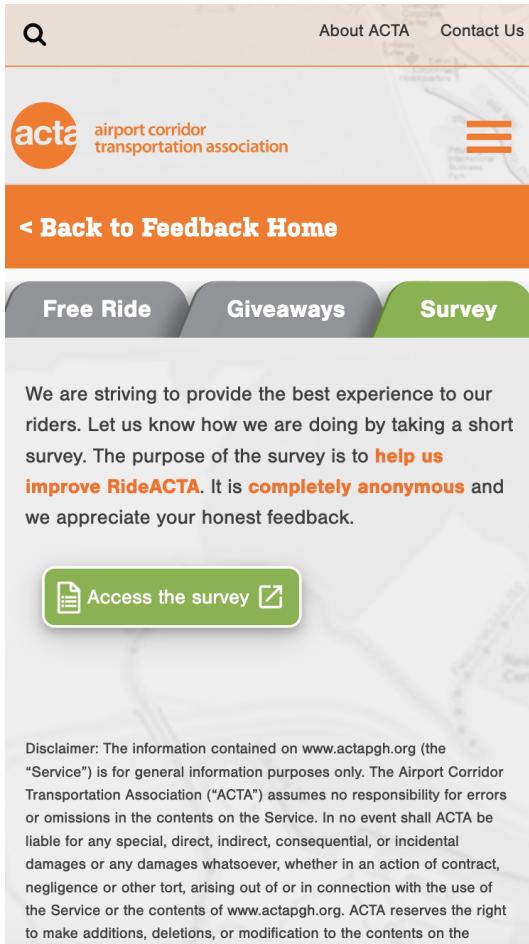
joie @joie31543463 · 2h  
#rideacta is cool  
RTs 13 1 Twitter

Laura Ding @WanlingDing · 28 Apr  
#rideacta test  
RTs 13 1 Twitter

Ivy Lu @2old2basifan · 22 Apr  
#rideACTA I have a good experience with ACTA.  
RTs 13 1 Twitter

joie @joie31543463 · 20 Apr

## Survey Page & Validate Free Voucher page

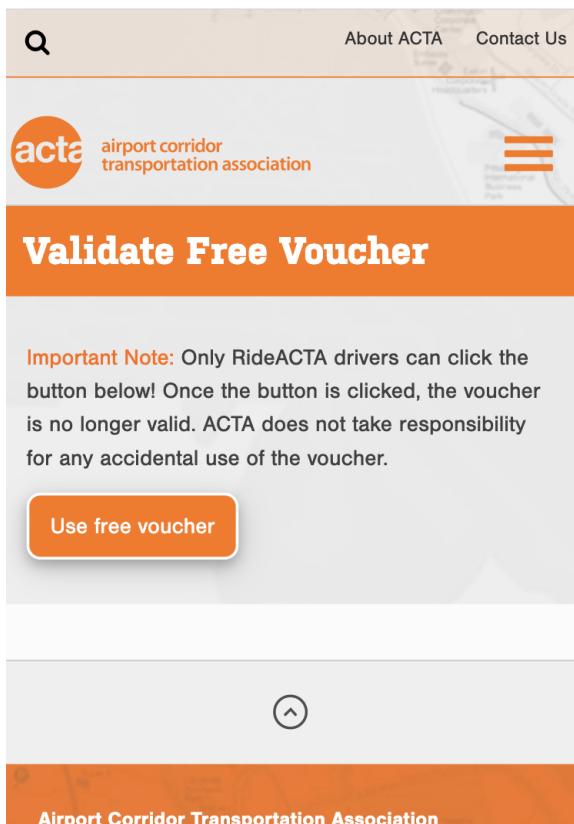


The screenshot shows the survey page for ACTA. At the top right are links for "About ACTA" and "Contact Us". The ACTA logo is in the top left. Below the header is a map of Pittsburgh's airport corridor. A large orange button at the top says "< Back to Feedback Home". Below it are three tabs: "Free Ride" (grey), "Giveaways" (grey), and "Survey" (green). The main content area contains text about the survey's purpose and a green button labeled "Access the survey". A disclaimer is located at the bottom of this section.

We are striving to provide the best experience to our riders. Let us know how we are doing by taking a short survey. The purpose of the survey is to **help us improve RideACTA**. It is **completely anonymous** and we appreciate your honest feedback.

[Access the survey](#)

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The screenshot shows the validate free voucher page. At the top right are links for "About ACTA" and "Contact Us". The ACTA logo is in the top left. Below the header is a map of Pittsburgh's airport corridor. A large orange button at the top says "Validate Free Voucher". Below it is a note: "Important Note: Only RideACTA drivers can click the button below! Once the button is clicked, the voucher is no longer valid. ACTA does not take responsibility for any accidental use of the voucher." A green button labeled "Use free voucher" is centered below the note. At the bottom is a grey footer bar with the ACTA logo and the text "Airport Corridor Transportation Association".

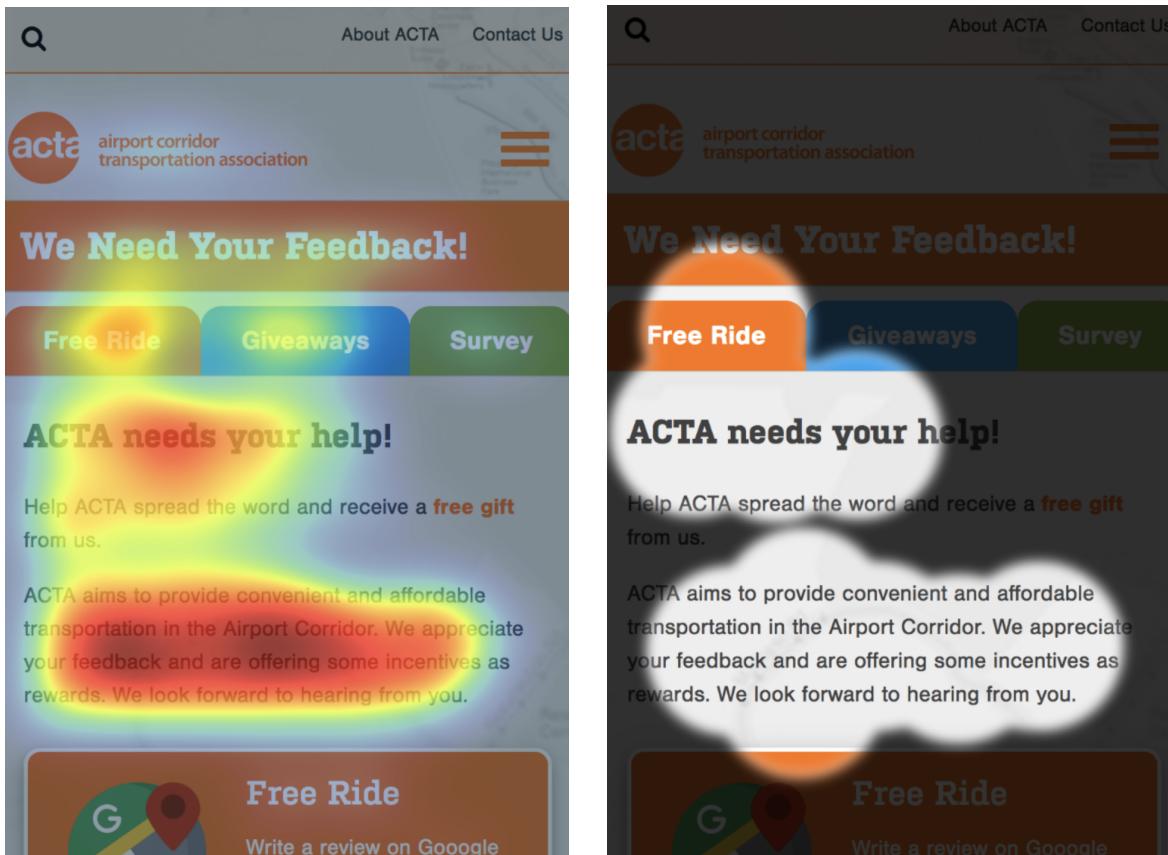
**Important Note:** Only RideACTA drivers can click the button below! Once the button is clicked, the voucher is no longer valid. ACTA does not take responsibility for any accidental use of the voucher.

[Use free voucher](#)

Airport Corridor Transportation Association

## Appendix N: Sample EyeQuant Result

EyeQuant is a digital tool which uses A.I. to instantly measure how clean, clear, exciting and attention-grabbing the web & mobile designs are. In the design process, we used EyeQuant as a tool to help us predict the attention of potential users and understand the clarity of our design. For instance, below is a sample EyeQuant result for one of our early iteration. The image on the right shows what the visitor will see in the first 3 seconds, while the image on the left shows which elements capture the most attention. Based on the result, we concluded that the introduction did a great job in capturing user's attention.



## Appendix O: Alternatives

We considered having a Twitter post box directly embedded on our Giveaways page as it would greatly improve the user experience because the user would not have to open a new window to tweet. However, after research, we found that although it is possible to embed a Twitter post box for one account owner, there is much difficulty in embedding a box for multiple users to tweet through, and they would most likely have to log in before posting. We concluded that this would be less user friendly than the current solution and dismissed this alternative.