

ISTM 631: IS Design & Develop Project

Project: Draft and Report

Web App Name: Aggie Events Hub

URL: <https://manisharao5.wixsite.com/aggie-events-hub1>

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Dream Team Dynamics

Group 15 (602) Team Members:

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Part 1: Documentation of User-Centered Design Process

A. Planning

Team Overview

Our team, Dream Team Dynamics, consists of 5 graduate students - Manisha Rao, Saniya Farahath, Vinitha Chukkala, Sumeet Nazare, and Yash Katariya. Each obtaining a master's degree in Management Information Systems. The team has various skills ranging from engineering, computer science, information systems, systems development, and design to cooking, smart grocery shopping, quick tire changing, and binge watching to mention a few. Apart from completing homework and hunting for jobs, we travel over the weekends, have house parties, or just enjoy some time off.

This team was formed with the intention of completing projects together for ISTM 631. However, our mission has a larger scope and expands beyond meeting deliverables. Our mission is to get to know each other, work together, exercise our skills in User Research, Information Systems Design, and Development, and develop high-quality end-products that meet the project deliverables and user expectations.

Collaboration Strategy

The strategy that we adopted involves virtual meetings done over Zoom where the team met for about 2-3 hours twice a week and 1 hour just before the agreed-upon deliverable submission to carry out the finishing touches. Saniya, Manisha, and Vinitha worked on the website design and creation. This included evaluating the different options for website building and deciding on the copy, voice, colors, and other elements that make the website. Sumeet and Yash also offered their input on the website creation and conducted some rounds of testing to ensure the website works as expected. They were in charge of some of the documentation of the report. Each member took

the lead for one meeting in rotation and during the meetings the requirements were understood in detail and team members volunteered to take up tasks they felt were within their expertise. Collaboration tools such as Google Docs, LucidChart, and Canva were used. As they allow multiple members to work on the same document, this lets every member contribute their discoveries and inputs on persona creation. Tasks were divided as evenly as they could among the team members so that nobody felt overly burdened, leading to good quality work. As each one of us worked at our pace, we made notes to other members working on our reports using the comments feature on Google Docs that were addressed by the team as a whole during calls or necessary changes were made by the individual. Some miscellaneous ways in which we ensured good quality were referring to the lecture material and reading materials as needed, ensuring that the formatting is as per the deliverable requirements, and avoiding grammatical errors through multiple proofreads performed by everyone on the team. Lastly, the team ensured that the work each other had put down was peer-reviewed by someone else on the team, that way everything was approved by everyone.

B. Understanding Context

User research

a) New Participant Demographics

For the user research, the team interviewed a total of 6 participants. During the first round of interviews, we had some participants (Squidward and Prince Eric) who were also an organizer for some events at Texas A&M along with being participants. They shared some concerns about losing potential members of the organization because the information is communicated via various channels and can be scattered. For example, Squidward mentioned that,

“I use emails to get to know about events, but they are not ideal. Because I am part of Asian American Students and last semester, there was a potential member who missed out on our association joining invite”, when asked about what challenges they faced while learning about the events at Texas A&M.

So we wanted to explore this pain point of students who were not only active and interested in participating in the events at Texas A&M but also were either a member or an organizer of events at the university. The demographics of each of the participants are described below.

1. Apple Cider is a 19-year-old female student majoring in Dance at Texas A&M University. She is a member of the Texas A&M PAWS organization and participates and follows Aggie traditions. As a freshman, she attends many events on campus with her friends and is looking to join another organization that can help her grow professionally and add more value to her resume. The team decided to interview this participant as she is active in marketing events of her organization through social media and is in charge of making accommodations depending on the number of participants.
2. Oswald is a 20-year old male student majoring in History at Texas A&M University. He is a member of the International Student Association (ISA) organization at TAMU. He has been with the organization since freshman year and is an office member of the club. He loves taking up leadership roles and has co-chaired various events organized by ISA.
3. Dumbledore is a 21-year-old male student majoring in Mechatronics. He is the president of a humanitarian volunteering organization called Tzuchi Collegiate Association or TCCA. He is outgoing and enjoys activities like break dance, robotics, and art. The team decided to interview this student because he is active in recruiting new volunteers and

promoting the organization, and since a president of an organization is a potential secondary persona, we thought he could provide us with some insights.

4. Phineas is a 21 year old undergraduate student majoring in finance at the Mays Business School. She is an active member of the TAMU Graduate Consulting (TAMU GC) Club, where she organizes various consulting events for undergraduate and graduate students. She enjoys solving complex business problems and hopes to start her entrepreneurial journey within the retail industry.
5. Pikachu is a 26 year old mathematics doctoral student or Ph.D. student. He is passionate about applying mathematics to everyday problems and has a keen interest in the field of data. He is a member of the Aggie Data Science Club (ADSC) where he organizes data science competitions. His interest in Data Science was piqued when he was a master's student at Texas A&M and as a result, participated in various events hosted by ADSC.
6. J Balvin is a 22-year-old male undergraduate student majoring in Electrical Engineering. He is the marketing head of Indian Graduate Student Association (IGSA). He utilizes the IGSA website & Social Media platforms for event marketing campaigns and third-party tools (such as Signup Genius & Eventbrite) to manage event sign-ups and analytics. We interviewed him to understand his experience with third-party event management tools and incorporate his feedback into our application.

b) Research Method(s)

Similar to the user research conducted for the primary persona, the team evaluated the good fit among the three research methods - interviews, surveys, and focus groups and the team decided to continue the user research using the interviews. The second round of user research contained some specific questions about the product, and the team thought that with interviews we would

have more flexibility in asking follow-up questions and getting more information through the answers that the participants might volunteer. Our first round of interviews for user research proved to be effective as it provided us with many insights that we could apply towards our deliverable. Additionally, interviews helped us capture quotes that were useful in capturing and understanding the participants' perspectives through the candid responses that they provided us.

Interviews gave us more information about the users' preferences and opinions as well. Although it takes up more time, the team felt that it was probably going to be more fruitful than the other options such as surveys or focus groups. Additionally, interviews allowed us to capture information in a timely manner and didn't require the team to send reminders to capture survey responses.

c) Instructions and Consent

"Howdy, we are a team of MIS students looking to interview students who are active in the events and activities taking place at Texas A&M University in terms of participation and/or organizing them, and who are interested to engage further with the aggie core values. This interview is part of our user research where we seek out students' challenges related to events registration on campus so that we can create a product that can help solve problems. We will be asking a few questions about who you are and about 8-10 open-ended questions related to participating or organizing events on campus. The interview should take about 15-20 minutes. If you choose to participate in this interview, we would like you to know that there is no right or wrong answer and there is always the choice to skip a question or opt out of the interview anytime. We assure you that names will be anonymous and your data will be secure. Keeping the information we provided you in mind, do we have your consent to start the interview? If yes, do

you consent to us capturing and using the information you provide us for our class project? [they say yes] Thank you! We appreciate you taking the time to participate.”

d) Questions

In addition to the previous round of questions, we also asked the following interview questions for this round of user research.

1. Please describe your experience when promoting or advertising your organization’s events to others?
2. What are some challenges you face while promoting events currently?
3. What are some of your motivations for you to become an event organizer for your club/society?
4. What tools and methods do you currently use to promote events and engage with students?
5. What are some aspects that would make it easier for you to organize and promote events on campus?
6. How do you handle updates or changes to events once they are posted online?
7. What factors improve your experience when using a website to find out about events and register for them (if you have used such a website)?
8. What do you look for in an event information and registration website when canceling a registration (if you have used such a website)?
9. Tell us about any experiences with issues related to event registration websites (e.g. payment processing, technical issues, etc.)?

d) Discovery

The discoveries below are obtained from two rounds of user research. With each iteration, different personas were created from our user research. In the following sections, both the discoveries have been posted below.

First iteration of user research

The following discoveries were made from our first iteration of user research.

Discovery 1: Participants face problems in correlating events with aggie-core values

We discovered that multiple participants were not sure if and how the events they participated in could help their understanding of the Aggie core values. A participant, Aladdin said, “Events related to core values are difficult to find since they are published by different groups. It’s also difficult to find events in general, you have to find the organizations or know the people”. As we were asking the questions, we realized that students do not participate in events for the purpose of furthering their association with the core values since they seemed thrown off when we moved from core values-related questions to events-related questions.

Furthermore, participant Mrs. Puff said, “I haven’t really found any events/workshops related to the Aggie core values”. Plus when asked a follow-up question about why they couldn’t find any workshop, they said “I guess, I haven’t seen any particular categorization of these events based on values or maybe I missed reading them in emails”

Discovery 2: Participants desired to receive preference based event information

We discovered that some students have niche interests and would like to receive information only about certain types of events. For example, participant Spongebob said, “I get a bunch of emails about a bunch of things, but something like a reminder notification for things I really like,

like the gallery event at MSC would be preferred”. Participant Lordy Lord said, “I almost only depend on my friends or texts from my org to know about events. Sometimes these end up being university events. Some other times, I get my event information through banners or stalls on campus. I get too many emails and I don’t always have the time to go through them all. Seeing the notifications I want would be useful.”

Discovery 3: Participants want events that help in professional development

The team strategized questions such that the participants provided insights on what motivations they have to sign-up for an event or what core values they aligned the most with. One of the common themes that arose through the user research was that most of the participants leveraged their participation in these events/workshops for their resume-building. The two most common aggie core values that participants resonated the most with are **Excellence** and **Leadership**. When asked why they aligned with these core values, one of the participants - Mrs. Puff said with respect to Excellence, “This value motivates me to push myself and work diligently towards all my academic, professional, and personal commitments”.

Participant Flighty Floo further supported the sentiment in her interview and said, “I want to pursue my Ph.D. in the future and I want to be the best in whatever I do.”

In addition to that, participant Squiward also mentioned, “through these opportunities on campus I can showcase my leadership skills”, when the team asked him about what motivates him to participate in these events and get involved in the organizations.

Therefore, the team concluded that these opportunities went beyond getting involved on campus. Some participants want to grow in their organizations and hold titles of responsibility and influence as they can add these accomplishments showcasing leadership skills and

extracurriculars on their resumes. Participants also seemed more eager about events that could teach them a new skill or where they could practice or improve their transferable skills.

Discovery 4: Participants have too many sources of information and lose track of events

The team discovered that most of the participants faced issues with how the information for each event/organization was presented. The source of information about events for many of our participants was emails. As the participant, Mrs. Puff mentioned, “I gather most of my information about activities on Campus through my email”. However, the biggest challenge and pain point of this medium was how scattered the information is. When the team followed up with Mrs. Puff, about her challenges, she said, “Navigating through hundreds of emails to find an event is challenging. At times, this means an email getting overlooked” and also, “It’s difficult to keep track of all the events that I have registered and plan to register. Sometimes, this leads to me registering for an event twice.”

In fact, Prince Eric, who is an active member of the Corps of Cadets, wanted to participate in events organized outside of the Corps of Cadets. But, unfortunately, he is flooded with emails about all the events hosted and he says, “The biggest concern is event emails appearing as junk emails.”

He was inundated with emails and was unhappy about the current situation of information dissemination. While he acknowledged the high volume of events at the university, he certainly expressed his desire and hoped to have a convenient solution to the problem. Participant Aladdin mentioned a point of concern regarding keeping up with the events, he said “Although I enjoy attending the first couple of meetings I get caught up with school and life, and I hate to admit it but I kinda forgot that the org exists”.

Based on the responses about the challenges the participants faced through the current medium/channels for information gathering, the team concluded that one of the pain points is details being cluttered and scattered, which makes it difficult to track their interest and participation in these events.

Discovery 5: Participants wish to have a one-stop application for all events and information overload

There were few participants who hoped to receive information related to events they cared about in one place. Participant Lordy Lord said, “sorting through the emails and finding information about events I am interested in takes time”. This was one of their pain points and their goal was to try to find an easier way to find events. When asked about the idea of one application with all event information, Lordy liked the idea but had very reasonable concerns - “I would not want to search a lot to find the event I want. That site could get crowded and confusing.”

Additionally, participants also mentioned if there was a portal to track their event registration at one place, like Squidward said that, “Maybe a portal displaying the events on campus on a weekly basis and a tracker to show if I have registered for an event or not” when we questioned on how he would like to receive information about the events, which overlapped with what Aladdin said, “I like those TVs they have at Mays that shows what’s happening. Or even a unified calendar for all Mays events would be great!”

This confirmed that participants were interested in having a uniform platform that catered to every event and workshop happening on/off campus.

Discovery 6: Participant's personality and environment

The common theme across all participants that the team discovered was that these participants were students who were inherently seeking opportunities to explore and go beyond the set expectations.

Velma was a brilliant participant who displayed the vigor and enthusiasm to make an impact in the life of others. Velma said, "My personality has been shaped by the people I have met throughout my life, and I want to have a similar impact on the people I meet in the future." She embodied almost an extroverted personality, shades of which were found across most of the user research participants. Therefore, the user research team drew various personality traits from Velma that shaped Sally, our primary user persona. Velma spoke at length about various event engagements over the past few years and some of the learnings and challenges that came with them. She briefly discussed her life outside the university, and how she enjoys hiking, an opportunity to engage with people and nature.

We also noticed that most of our participants were comfortable using and accessing technology that is common today (emails, social networking mobile, and web applications, connecting to the Wi-Fi, creating hotspots, etc.). They considered themselves quick to learn new technologies and preferred free applications over paid ones. Lordy said, "Most apps that are new to me have been easy to use and have a help tutorial or something to understand it." Participants were also most likely to use resources on campus or from their dorms or apartments. Both environments usually always had fast and easy access to the internet.

Unexpected result

The team noticed that a few participants preferred the use of social media applications over the official channels of communication. For instance, Darth Vader, when asked about how he would like to receive information, answered 'Instagram' without a second thought. He further explained

that he was one of the many students who are very active on Instagram, spending a good amount of time sharing memes, exploring places, and finding out about events through their social media handles. We found this unexpected because we thought that students used Instagram to keep up with their friends and family rather than student organizations.

Additionally, one of the unconscious biases that we discovered is that people are pretty outgoing. Irrespective of their year, whether they are graduate students or seniors they still want to participate in events. We assumed that as graduation comes close, students lose interest in organizations due to burnout. We found it interesting that Spongebob, who is soft-spoken and seems like an introvert, has gone door-to-door campaigning about the Democratic party. We can conclude that students will make time or overcome obstacles for organizations that they are passionate about and have a genuine interest in them.

Second iteration of user research

The following discoveries were made during our current and second iteration of user research.

Discovery 1 - The organizer finds it difficult to know the exact event attendees when dynamic cancellations and modifications occur

While talking to the participants, we realized that they use emails or MSC Box Office for getting attendees sign-ups. There are times when the sign-ups are really higher than the actual attendees because there is no way to currently integrate canceled RSVPs to actual attendees.

Dumbledore mentioned a pain point for his organization. He said “It’s challenging to accommodate the drop in attendance towards the end of the semester because everyone gets busy. It’s not an issue we can control but if we can expect it, we can plan for it.”

Further Pikachu, a Ph.D. student who is an organizer at Aggie Data Science Club commented that, “we manually compare excels if we have canceled RSVPs or emails from attendees saying that they won't be able to attend. But usually, we just go with an approximate number of participants, avoiding the comparisons” when we asked about current challenges in the tools to get signs for the events.

This confirmed that the participants faced problems in gauging the participant and attendee estimates as there is no unified platform where both sign-ups, cancellations and modifications can be recorded and updated.

Discovery 2 - The organizer has multiple platforms for promoting, so a change in details involves updating on all the platforms

When asked about what are the current tools and platforms used for event promotions, the participants mentioned social media platforms such as Instagram, Facebook, and GroupMe. And when asked about how they handle changes in events, Dumbledore said that the changes need to be updated on all the platforms as well. He said, “If the time or location changes we have to post again on Instagram and Facebook and pray that the volunteers see the update on time, we have to be vigilant with any changes.”

Further Oswald pointed out that there were gaps in how the information was disseminated about the events. Sometimes, some information was present in email blasts and the same wasn't present in Instagram posts, when we asked what problems they face while using the current tools and platforms to promote the events. He said,

“Although I love talking to participants, I feel like there are redundant questions that would have been tackled if we communicated concisely..”

Based on these inputs, the team concluded that a unified platform that has an option to share the event on social media through the platform helps at once.

Discovery 3 - Personality traits of secondary persona

We noticed that most of the participants we interviewed as part of secondary persona user research have a few common personality traits. They are extroverted and organized individuals who are performing well in their academic life as well. For example, Dumbledore displayed traits of good time management through participating in extracurricular activities such as breakdance and pursuing a challenging STEM degree. We also noticed that participants enjoy working out and exercising along with their studies and other extracurriculars. Apple Cider and Oswald both enjoy going to the gym and staying fit.

Discovery 4 - Insights about website particulars

When we asked more specific questions about what they would like in an event information and registration website, we learned that they liked having the important information such as a brief of the event, date, time, and location to be obvious and evident from one look at the event. Participant Apple Cider said, “This (referring to the brief description, date and time, and location”) makes it very easy for me to decide if I want to attend this event or not.” We also learned that easy registration is really appreciated along with an easy calendar add-on. Participant Oswald also said, “it's good to know I don't have to enter a ton of information to register for an event. I like it when I can do it in a minute on the go. Its also the best when I have the option to add it to my calendar ”. We also found out that participants prefer having an easy way out of their registration too. Phineas said, ‘I want the cancellation button or process to be made obvious to me. I don't like it when I have to search for it or call someone to get it done’. They also said that pictures and reviews of an event make them more likely to attend an event.

When asked about any issues they might have faced with other websites, Pikachu said that sometimes they have some card payment issues or sometimes their registration or seat booking is already taken when they are in the process of booking it. They said, ‘In such cases I look for a point-of-contact for me to reach regarding these issues, and usually it's quickly fixed after that.’

Discovery 5 - The organizer has to pay fees for hosting events (even free ones) on third party applications with limited page customization.

Some of the participants also noted that they use other registration methods when their event needs high promotion or has high attendance instead of just email for promotions and sign-ups. However, doing so leads to paying additional fees to have features, consolidations and event registration management.

J Balvin mentioned that the student organizations are always on a tight budget and it's disheartening to allocate some of it to host the event on third-party applications such as Eventbrite and SignUpGenius. These applications also provide less customization in terms of branding and design of the events page. ‘I really wish to see a centralized event hosting application where we can host all aggie events without having to burn a hole in our organizations treasury’

Unexpected Results

Result 1: An unexpected result that we discovered during the interview was the administration work that the organization leaders have to deal with before conducting an event on campus. Dumbledore mentioned, “Most of the events that we try to have on campus have really strict regulations and approval process time, which can discourage us from launching events on campus”. Although currently, we have not incorporated any feature to help this, in the future there is scope to quicken the approval time using Aggie Events Hub.

Result 2: Although third-party applications are great with event management, it comes at a price. It has to be anyway promoted again on the emails and using the third party creates legitimacy and visibility issues. J Balvin expressed concerns regarding the visibility of the events amongst other events hosted on third party applications. For example, Eventbrite hosts a wide range of events, which means that it can be difficult for smaller or niche events to stand out and attract attendees. ‘We have often experienced less participation from the students and some of the feedback we received was the struggle to find aggie events from the vast event library of Eventbrite’, said J Balvin.

Personas

Based on the user research, we developed two user personas, the primary persona ‘Sally the Student’ followed by the secondary persona, ‘Orin the Marketing Officer’.

Primary Persona



SALLY THE STUDENT

Age: 22
Location: College Station, TX
Education: Bachelors in Finance
Occupation: Student (Senior)

"I align the most with Leadership and Excellence Aggie Core Values"

Personality
Social | Career Driven | Organized

Sally is a career-driven aggie who is empathetic and wishes to have a lasting impact on the people around her.

Interests

Game Controller icon, Game Controller icon, Football icon

Typical Day
Sally attends classes, catches up on readings and homework. She meets her friends or gets coffee to stay energetic. Sally also enjoys playing games online and participating in university events with her friends. She checks her emails multiple times a day to stay on top of things

Goals

1. One stop application for event information
2. Preference based event notification
3. Event participation for profile building

Pain Points

1. Scattered Information
2. Information Overload (Too many emails!)
3. Missing out on important announcements
4. Can't find events aligning with core values

Secondary Persona



ORIN THE MARKETING OFFICER

Age: 20
Location: College Station, TX
Education: Bachelors in History
Occupation: Student (Junior)

I enjoy organizing and marketing events that exemplify Aggie values

Personality
Meticulous | Organized | Leader

Orin is a natural leader who likes his classes and enjoys bringing people together to celebrate some Aggie values through workshops and social events

Interests

Icon icons: a camera, a book, and a gear.

Typical Day
Orin attends classes, meets friends, and exercises. He spends some time studying and reading during the day. Orin also spends time on social media promoting events or finding out about new event information sources.

Goals

1. One application for event posting, registration, and promotion
2. Track event registrations
3. Analyze event engagement and participant demographics

Pain Points

1. Not being able to gauge the number of participants for an event
2. Missing out on potential participants
3. Difficult to update event details on multiple platforms

Scenarios

1. Sally, a senior student majoring in Finance at Texas A&M University, wants to find out about any upcoming business events and participate in one. She knows there are events planned by different organizations and departments and wants to find out the one that is interesting and aligns with her interest. She is particularly interested in finding events that are aligned with Aggie Core Values and wants to learn more about them. She checks her emails for event information posted by organizing committees and is a little overwhelmed and confused by the amount of information and different resources available to find out about events. The current information is scattered and difficult to filter based on different

conditions. Using the Aggie Events Hub website, Sally can navigate to the *Events* section from the home page and filter through the options and see if there's an event that she could sign up for based on her interest. The Aggie Values filter allows Sally to gather information about both, Aggie Core Values and her business interests.

2. Sally wants to participate in an event hosted by the Center for Teaching Excellence on the 'Professional Writing' and has to register for the event using Google Forms. The problem she faces with Google Forms is that she does not get a confirmation email upon registering for the event. With the Aggie Events Hub website, she can log in to her account and search for the specific event that she is looking in the *Events* section of the page. She can then click on the RSVP button to open the details and confirm her registration by clicking on the RSVP button again.
3. Sally attends different events organized by Texas A&M University. Some of which she registers using the sign-up information shared on the email, and some registrations take place in person. She finds it extremely frustrating to not have all the event-related information in one place and not provide the same information repeatedly. With the Aggie Events Hub, she can sign up and create a profile with two simple steps i.e. selecting the *Log In* option on the top right corner of the website and selecting the *Sign Up With Google* or *Sign Up With Email* option. Once completed, she can sign-up for the events using the saved personal information on the website.
4. Sally is an active student member who participates in various events and competitions hosted at Texas A&M University. One of the challenges she faces due to high participation is mismanagement of her schedule which comprises her ongoing academic engagement as well. Most events and competitions she registers for do not provide an

‘Add to Calendar’ option. She manually updates her calendar and sets a reminder which helps her manage her time efficiently, but it also makes the process time-consuming. Instead, using the Aggie Events Hub website, Sally can conveniently find the events she likes under the *Event* section, register for them, and get an ‘Add to Calendar’ option for various platforms and manage her schedule efficiently without any additional effort to manually add the events.

5. Sally wants to keep a track of the events she participated in throughout the year. She wants to understand her engagement in the past and plan her future event participation for the next academic year. Currently, she needs to manually check her emails for event confirmations that she has received. Unfortunately, some of the events that she registered for do not even send her a confirmation. But with the Aggie Events Hub, Sally can easily track her participation. She can log in to her account and click on the profile icon to open the dropdown and select *My Events*. Within this section, she can click on past events to take a look at her previous engagement.
6. At the start of the semester, Sally looks at the upcoming events list and registers herself for a few events. She is excited to participate in all the events and keeps a track of them. Unfortunately, for the Big Event that Sally had registered, a few hours before the event, she realized that she would be unable to participate. And, sadly for her, the event she signed up for was captured using Google forms, and there was no way to cancel her registration. She would have to personally mail the event organizer to let them know about the change and wait for the confirmation. But, with the Aggie Events Hub, she can easily register and cancel her registration as well. All she has to do is visit her *My Events* section on her profile and click on the down arrow on the specific event that needs to be

canceled. And, finally, select the *Cancel RSVP* and confirms the selection to cancel the event.

7. Orin, a junior at Texas A&M University, wants to conduct a “Speak on Stage like a Pro” workshop. He is excited to share his many years of public speaking expertise with people who are less experienced than him and probably anxious. His organization ‘The Aggie Toastmasters’ will support him with the workshop. He is confused about how to get interested people to attend the workshop. Currently, he can only hope to get more traction by sending an email to the students. He is looking for a platform that can help increase student registration. He then realizes that he can use Aggie Events Hub to post the event and its details so that students can come across it and sign up. He can visit the website and select the *Post Events* section to fill out the event details which will be validated by the admin and posted accordingly. After completing the form and clicking on the *Submit* button, a completion status is displayed which helps Orin understand that the request is successfully posted. Posting an event helps Orin increase the outreach as most Aggies visit the Aggie Events Hub website to find event-related information.
8. Orin being the Aggie Toastmasters’ member actively hosts various workshops with the support of his club. His club hopes to conduct only those events that reach a 40+ registrations to ensure that the club’s resources are utilized efficiently. One such event was the ‘Aggie Pitch’. To ensure there was a high participation, club members volunteered to visit different departments and capture interested participants’ details on the physical form, which the team hopes to tally by the end of the week. Currently, due to the in-person registrations, Orin finds it difficult to track the current registration count as needs to reach out to all the volunteers to get the information. He needs a count of the

members attending to ensure there are sufficient refreshments. Instead, with the Aggie Events Hub, he can find the posted event on the *Events* page, click on *RSVP* button and scroll to Guests section to look at the members who have registered for the event. The registration count is readily available for him at any point without the need or dependency on his team members.

9. Orin believes that the new graduates should have an opportunity to learn about the Aggie Core Values to better understand the spirit of Aggieland. All the events that he hosts from his club do exemplify one or some of the Aggie Core Values such as Leadership and Excellence through each of the events. While he promotes the events, he puts in additional effort to specify the associated Aggie Core Value to the potential participants by adding extra information. Instead, he could make the process efficient by using the existing tags while posting on the Aggie Events Hub website. He can rectify the same by using the Aggie Core Values Filter on the *Events* page to ensure more visibility for the event with respect to Aggie Core Values.
10. Orin believes in promoting events that are hosted by his club. He believes one of the efficient ways to gain more traction and promote an event is by using social media applications such as Facebook, Twitter, and LinkedIn. He believes some of the frequent participants gather more information through social media than emails. He is currently promoting the ‘Silver Taps’ event. The only problem he faces with such a promotion is he needs to log into each website or application separately and create a post that he can share with the members. But, with the Aggie Events Hub he can perform the same action more effectively by selecting the share with media option that allows him to promote the events better and faster. He can do so by visiting the My Events page on his account, and

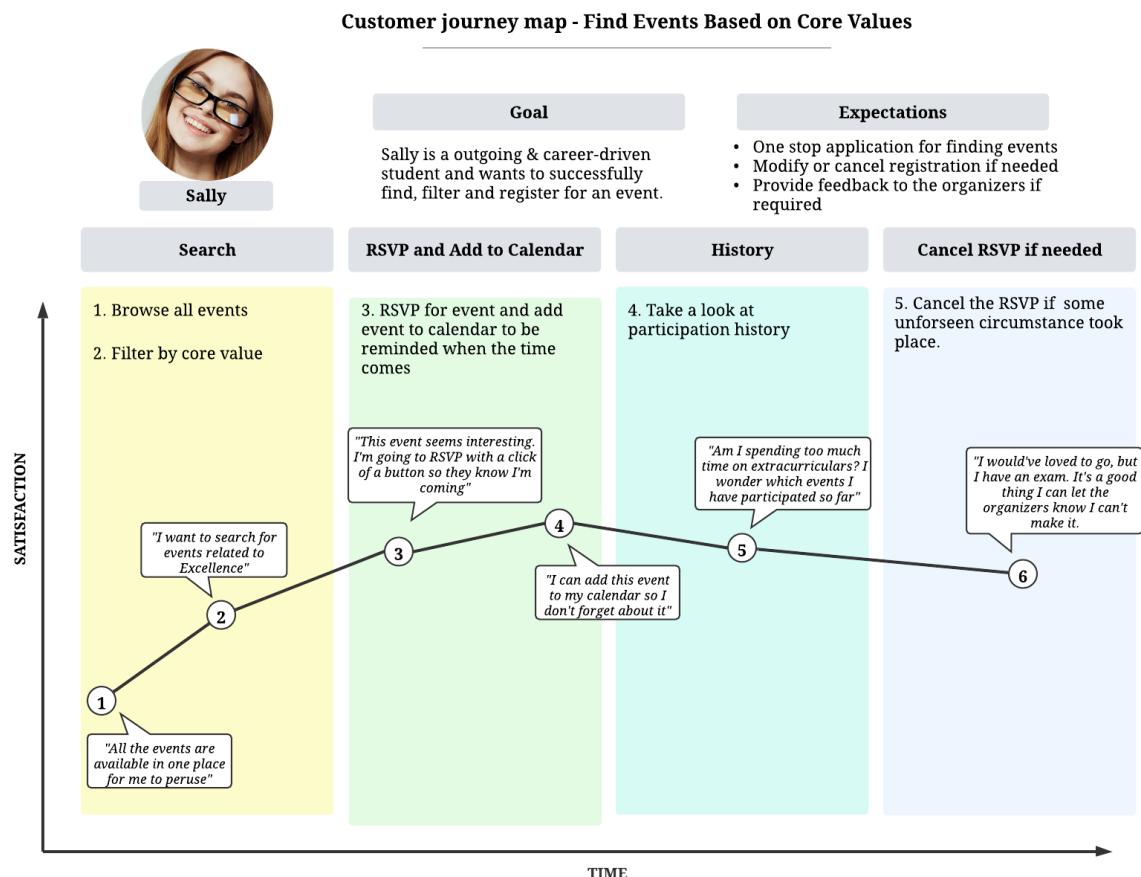
clicking on the dropdown of the specific event that he wants to promote. Under the section, he can click on the Share Event link and select the specific social media platform to share the event.

11. Orin has been organizing events at Texas A&M University for a while now. And, most of the events that he has organized and published have followed a template that ensures certain information is provided to the participants. He fills in the usual template and shares the information via email to all the students. Orin is now organizing the ‘Aggie Connect’ event. Having sent out an email invite, Orin realizes that he has not added the location of the event accurately. In order to rectify this, he needs to send out another email to inform the students about the update. Whereas, with the website, once Orin has posted an event he can modify the same by raising a request to the admin. He can click on the *Contact* section from the home page, and fill out the request form. In the drop down, he can select *Modify Event Details* to specify the request type before submitting the change request.

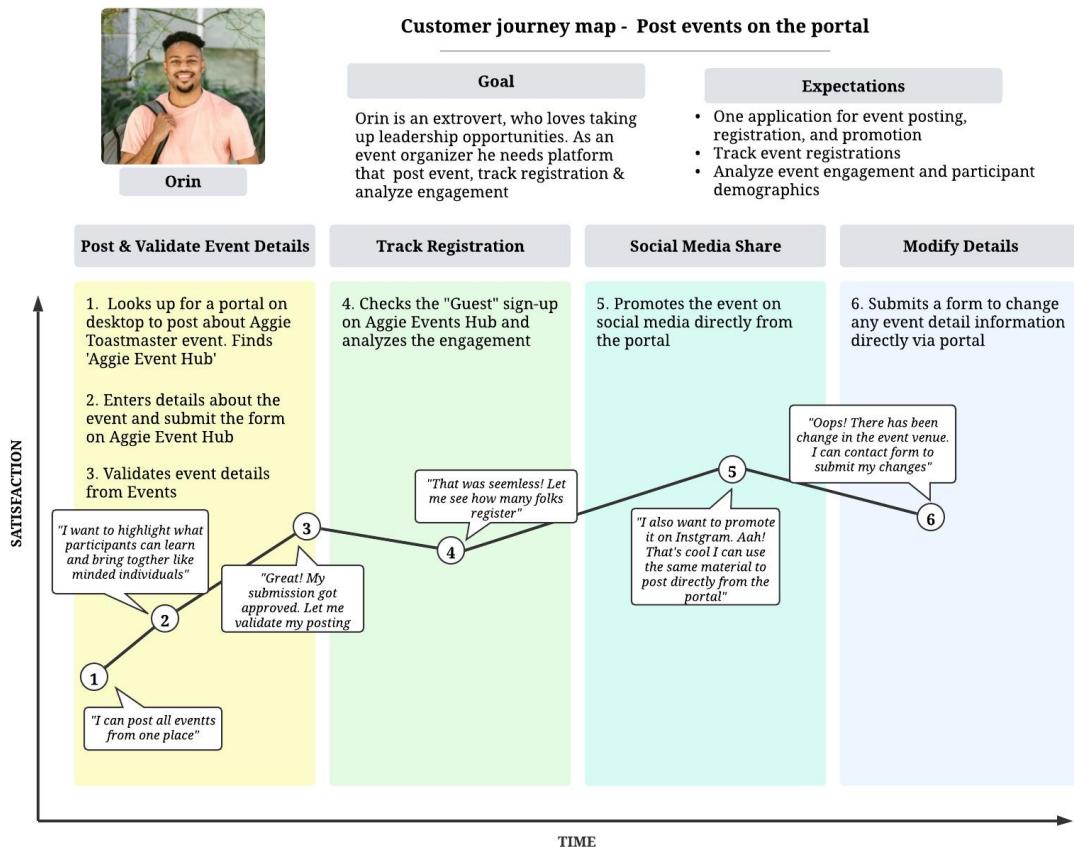
Journey Maps

The primary persona journey map was created using our persona, Sally, who wanted to look for events based on certain Aggie core values. The goals and expectations are retrieved from the user persona that we created based on our user research. In the journey map, the x-axis represents time and the y-axis represents satisfaction. The journey shows that Sally is interested in extracurriculars and wants to find one that aligns with core values that are important to her, in this case, it is excellence. After she browsed and found one, she logs in and then registers for the event. Since she has a busy schedule, she would like to be reminded about the event, so she adds

it to her Google calendar since she regularly checks that and it has an option of sending reminder notifications. Along the way, she is curious about her participation in various extracurriculars, so assuming she has registered for other events, she checks her past events history on the website. Later, she later realized that due to a conflict, she cannot attend one of the events, and uses Aggie Connect Hub to cancel her registration. Although in this journey, Sally is not able to ultimately attend the event, this is only one of the possible outcomes and it is shown here to depict that registrations can be canceled. It is equally possible that the user attends the event without the need to cancel.



The secondary persona journey map was created using our secondary persona, Orin, who wants one application to post about an event and track registrations. His goals and expectations are retrieved from the user persona created based on our user research. We track his journey against time on the x-axis and satisfaction on the y-axis. He first wants to post about an upcoming event including all the necessary information. His satisfaction increases when he sees that his event has been approved and posted on Aggie Events Hub. Orin now waits for participants to register and might experience a slight dip in satisfaction if the number of registrations are not what he expected. He knows that social media is an easy way to disseminate the information so his satisfaction increases when he sees that he can share the event from the website to different social media platforms. Finally, if there are any changes to the event Orin knows that he can request to make these changes on the website as well. While this decreases his satisfaction a little as this might cause confusion to his participants, he is still glad he has a way of doing so on the website. The phases of Orin's journey can be divided into 'post and validate event details', 'track registrations', 'social media share', and 'modify details'. The whole journey can take anywhere from a couple of weeks to a few months depending on when he posts the event and the actual date of the event.



C. Documenting Requirements

User Stories

- As an event attendee, I want to filter events based on the Aggie Core Values so that I can learn more about the specific Aggie Core values.
- As an event attendee, I want to register for the events so that I can reserve my attendance.
- As an event attendee, I want to add my events to the calendar so that I can manage my schedule.
- As an event attendee, I want to share an event on social media so that my friends do not miss out on the information

5. As an event attendee, I want to cancel my participation so that I can accommodate any change in preference
6. As an event attendee, I want to contact the website owners so that I can report technical problems.
7. As an event host, I want to post new events on the Aggie Events Hub so that Aggies have an opportunity to register for the event
8. As an event host, I want to modify the posted event so that I can update the event with latest information
9. As an event host, I want to track the total registration so that I can plan the refreshments required for the event.
10. As an event host, I want to share the event details on social media platforms so that I can ensure maximum visibility of the event.
11. As an event host, I want to filter events posted based on the Aggie Core Values so that I can plan an event under a specific core value that has fewer events.

D. Usability Evaluation of Design

1. Evaluation Demographics

Our user base includes Texas A&M students who are interested in participating or organizing campus or private organization events. These participants should have also interacted with an event registration website in the past. We ensured that the participants are not aware of the purpose of our website and have never interacted with it. We also exclude participants who have been part of our user research and are students of the ISTM 631 class.

The following lists brief demographic details about our participants:

- 1) Fred Jones is 21, male, and a student majoring in Computer Science at Texas A&M University. He is an active participant in the on-campus events and is a member of International Student Association (ISA). He generally uses email and word of mouth to get to know about the events on campus. He has used the Eventbrite platform for some events to register in the past.
- 2) Scooby is a 22-year-old male studying Electrical Engineering at Texas A&M University. He is part of the Engineering Society since he enjoys taking part in competitions to further his skills in the field. His organization makes use of the Event Registration System as his signing up tool.
- 3) Gloria, 20, female, is an undergraduate student majoring in Biology. She is a member of Aggie Assist and enjoys participating in and marketing events on campus. She has used Ticketmaster in the past.
- 4) Daphne, 19, female, is an undergraduate student majoring in Geology. She is an active participant in many campus events organized by different organizations. She has used StubHub and Ticketmaster in the past.
- 5) Thanos is a 21-year-old Biotechnology undergraduate, who works as a student assistant at the Center for Teaching Excellence (CTE). He assists various consultants at the Center to host workshops for the undergraduates. He manages registration, and refreshment gathering, and distributes surveys post-events. He has been an active member of the Center for about two years. Thanos uses Event Registration System and SWAN in his department to manage events.

2. Evaluation Methodology

a) Equipment

Participant Name	Type of Device	Model of Device	Browser Used	Tools - Web Conferencing and Recording
Fred Jones	Laptop	Apple MacBook Air (M2, 2021)	Google Chrome	Zoom for Web Conferencing & Recording
Scooby	Laptop	Alienware m15 R7 Gaming Laptop	Google Chrome	Zoom
Gloria	Laptop	Apple MacBook Air (M1, 2020)	Google Chrome	Zoom
Daphne	Phone	iPhone 13 mini	Safari	Zoom
Thanos	Laptop	Apple MacBook Air (M1, 2021)	Google Chrome	Zoom for Web Conferencing & Recording

b) Instructions and Consent

“Thank you for agreeing to share some of your time. I and a team of 4 graduate students are working on a project - Aggie Events Hub! As a part of the project I am conducting a usability study to test the usability of this website. Before I begin, I would like to ask you a few pre-questions to ensure that you are eligible for this study:

1. Are you currently a student at Texas A&M University?
2. Have you ever used an event registration website before? If so, which one?
3. Have you participated in any Texas A&M events before? If so, how did you learn about the event?

During this session, I will be asking you to perform a few tasks on the website.

To help us better understand your thought process while you perform the tasks, this is a think-aloud test. This means that we would like you to vocalize your thoughts as you work through each task. Please describe what you are doing, why you are doing it, and any issues or confusion you may encounter.

For better clarification, I will be showing you a video of what is expected from this session - <https://www.nngroup.com/articles/thinking-aloud-demo-video/>. *[Once the participant understands, we provided a small example]* Now that you have some clarity, let's do a small example, “Can you count the number of windows in your apartment?” As you count the windows, please share your thoughts of reaching the exact count. I hope these demos helped you gain some insight into what the session will be about. If you have any questions you can ask me. *[Once the participant agrees to understand, we proceed further]*

For effective study, I will be recording the screen and the audio for reference. I assure you that the data will be used only for my graduate project. If at any point during the test, you feel confused or frustrated, please let me know. There are no right or wrong answers during this test. I simply want your honest feedback and opinions about the website.

If you agree to participate in this study, please provide your consent by replying "I consent to participate in this Think Aloud session."

[Participant Agrees] Thank you again for your participation, and let's get started! Here is the link to website - Aggie Events Hub:

<https://manisharao5.wixsite.com/aggie-events-hub1> (*shared over web-conferencing chat*)

Tasks:

1. Find out what the website does.
2. Find the date and location of any event that interests you which is about the aggie core value - excellence
3. Find out the contact information that you can reach out to if you have trouble with the website
4. Pretend that you are an event organizer and find a way to post an event called 'Blood Donation Drive' using the website.

c) Think Aloud Data Collection

We collected the observational data of participants through verbal feedback during interviews and think-aloud sessions. We also noted their behavioral responses and emotional reactions during the think-aloud session to confirm if they were able to follow the tasks.

For effectiveness, the team recorded their usability testing session over their web conferencing tool and each of the group members also took notes on paper/digital devices as the session progressed. Any significant thoughts that were spoken by the participants were noted and any expressions of confusion and satisfaction (facial expressions) were also noted using paper/digital sources. Along with our notes, we referenced the recordings for any clarification.

d) Interview Data Collection

The team decided to ask the following question to each of the participants.

1. What do you think the purpose of this website is? (*after task 1*)
 2. How was your experience finding events aligned with the ‘excellence’ value?
(after task 2)
 - How was your experience using the core values filter? (*after task 2 - situational questions, if users were successful in completing the task*)
 3. How was your experience locating the contact information for website support?
(after task 3)
 4. How did you feel about the event posting process? (*after task 4*)
 5. How do you compare ‘Aggie Events hub’ with <current event gather preference>? (*After all tasks*)
- #### **3. Evaluation Findings**

Based on the usability evaluation of 4 tasks, the following were the findings from 5 participants:

Finding 1: Participants successfully completed the task.

All of the participants successfully completed the tasks presented to them - it showed that the website followed a consistent design present in other well-known websites. Hence the website followed standard external consistency. Through think-aloud sessions and the interviews conducted, the team assessed that users were able to navigate around the website. When asked to perform the first task i.e. finding out what the website does - most participants could gauge in the first few seconds by just landing on the homepage.

As Fred Jones said, "I think for that I look at the website name and tagline - I know it has something to do with registering for events at the university." The team followed the visual hierarchical concept here to garner the user's attention and help them skim the website to understand the purpose of the website. When he dug further into the 'About Us' page - he also realized that the events were basically categorized by Aggie Core Values. When he read the premise of our page, he reacted by saying - "oh I didn't know we could also categorize based on core values - this could be useful for pitching ideas to the committee when I want to bring in new events". This showed that the participants could understand the purpose of the website by spending less than a minute on it. The navigational menu on the website acted as a guide to the participants. They used the menu to learn more about the website, find the contact information, and even event information and registration. Participant Gloria said, 'the menu makes it very obvious for me to understand how the information is categorized. It allows me to guess correctly what information I can find in each menu.' Overall, Thanos found the website similar to the events management website used by the Center. He was quickly able to identify and understand the different sections of the website and said, "I like the look and feel of the website. Functionally, the website is similar to what

I use at my work. So, it is a lot easier to navigate and perform different actions. The only difference that I have noticed between these two sites is that your site is more vibrant as compared to the one I use. And, understandably so.”

Based on the above verbal feedback and confirmations, we concluded that all participants were able to successfully complete all the tasks.

Finding 2: Some participants followed the steps we expected.

The participants followed the expected steps for tasks 1, 3, and 4, (finding out about the website, posting about an event, and finding contact information). Participant Gloria read the blurb on the homepage and understood the intention of the website in less than a minute. When asked to find contact information, she went immediately to the ‘Contact’ page and said, ‘I presumed that ‘Contact’ would have the information for a point-of-contact as most other websites follow that pattern.’ Participant Scooby scrolled to the bottom of the page and said “I know most websites have their phone numbers on the bottom of the page, which is what I prefer to use when there is an emergency”. He then quickly saw the contact us button and clicked on it and said, “Oh there’s a contact button too, I would probably use this form if the issue was not urgent”. When asked about his experience, he said finding the information was straightforward, and posting was also easy because of the menu item. We found that some of the participants focus on the home page when trying to find out what the website is about. We expected them to go to the About Us page and come across the mission and find out more about the website, but they seem to get all the information from the home page, especially the blurb. Task #4 about posting an event on the portal was easy to spot and use as per the participants. None of them took very long to spot the menu item ‘Post event’ and they were quickly able to connect that this menu would help them post an event.

Thanos, who regularly conducts events for CTE, found it similar to the existing websites that he uses within the Center and said, “At CTE, we have our own portal to post events, which student assistants can update as well. But, it makes sense to not grant the same permission to all the students on campus and have a Post Event Request form.”

When asked about how they compare with other event websites that the participants were familiar with, some of them said they like that the focus of the website is made very clear. Participant Gloria said that it was not always obvious to her what some event websites did until she was navigated to that website through the booking process from another website.

We found that the user was able to find out the purpose of the website even when browsing it for the first time over the phone. They also found the contact information through the footer and through the contact Menu on the website. They were able to carry out the event posting task as expected as well. For finding out events aligned with ‘excellence’, the participant used the home page and saw an event aligned with excellence. We expected them to use the menu to find the events, however, they only used the menu when it came to the third task which was to post an event.

Finding 3: Unexpected assumptions

While there were not many unexpected assumptions, however, participant Gloria said she couldn’t directly compare it to other websites due to her perceived size of the website. She presumed that Aggie Events Hub might have a smaller reach. She said, ‘I feel like maybe less than a 1000 people would use this website. However, I presume that Ticketmaster has million users so somehow I cannot compare it in my mind’. We found this assumption a little unexpected as Texas A&M has about 80,000 students and while not everyone would use the website, the reach of the website would definitely be more than a 1000 users.

Finding 4: Surprising or interesting findings

We had a couple of participants who mentioned some interesting things about our website. When conducting task 2 (find events about excellence) a couple of participants did not notice the filter on the events page, instead Scooby and Gloria scrolled through events to find one based on excellence. Gloria looked for the value written on the event as a guide to find ‘excellence’ events. However, the participant Fred Jones knew how to use the filter. Perhaps his experience in web development helped him look for the filter. He said “very straightforward and no second thoughts on how to use filters”, when asked about his experience using the filter on the events section. As the makers of the website we thought that the filters are easy to spot and use, but through the usability testing we found that some contrast and emphasis might be required to highlight the filters. Scooby also wondered out loud why the events were not in chronological order, as that is the standard on most websites. Thanos has an interesting observation about the Events page and he said, ‘Since I know there will be a lot of events hosted at Texas A&M, I assumed the specific event block will be much smaller so as to accommodate a large number of events. I would have some difficulty finding the right event incase of high volume.’”

4. Integration of Findings

From our findings we anticipate that we will need to make the filter on our events page more obvious for the Desktop or Laptop users by either adding more contrast or by moving its current position. Perhaps including a line on the page indicating that the filter can be used will be helpful. We might also need to ensure that the events are presented in a chronological order to the users as this is something that most users might expect. Some

participants provided some feedback on the colors of the website and the placement of the filter. While these were met with an ‘extinction’ response from us, this is something we might consider in the next iteration of our product.

Currently, Texas A&M University uses the Event Registration System (ERS) to manage events and post them for the students. One of the differences between ERS and our website was highlighted by Thanos. He mentions how several events are posted in a row form on the ERS website, whereas it is in a large grid form on our website. Thanos found the row form easier to navigate. It is noteworthy to think about design considerations that could potentially impact our website users to find events when there are significantly high numbers of events.

E. Appendices

References

1. <https://www.extension.iastate.edu/documents/anr/likertscaleexamplesforsurveys.pdf>