

Bunch

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Depression and anxiety have recently become issues that are on the rise: nearly half of adults report they sometimes or always feel alone [37]. In the midst of coronavirus, these numbers will only increase as people continue to isolate themselves, as due to its effects these problems have only been exacerbated in recent months [31]. With the ongoing findings of loneliness and its detriments to physical health, loneliness itself is becoming an epidemic to many around the world [50]. In order to combat the symptoms of loneliness and depression, people should seek communities or events that allow them to communicate with others. Studies have shown that online communities can improve the symptoms of depression and anxiety [40]. Our web application, Bunch, is a platform that will allow users from all over to seek out open events and communities that fit their personal interests. Users can browse events that are in their area or completely online. Bunch also allows users to join communities based on their interests. Within these communities, an admin can post announcements as well as information about new and upcoming events. To measure how well Bunch is received, an anonymous pre-test survey will be issued inquiring about symptoms of anxiety, depression, loneliness, etc. After testing out our application and using it to attend an event, users will complete an anonymous post-test survey. With the recent decline in social interaction, many people feel alone or depressed. By creating a web application that promotes interaction with events and communities, we aim to reduce loneliness and aid in the treatment of anxiety and depression.

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1 INTRODUCTION

1.1 Motivation

In July of this year, 40.1% of US adults reported symptoms of anxiety or depression, up from 34.5% in May [35]. This problem has gotten even worse due to the side effects of COVID-19, in a study done on COVID-19's effects on mental health it was found that "strict social distancing, implemented widely to curb the spread of COVID-19, has the unintended consequences of prolonged social isolation and adverse impact on mental health" [46]. With the new realities of our situation due to quarantining and people unable to meet people face-to-face, an incredible number of people feel alone more than ever. In order to meet people and have the opportunity to socialize, some people are disobeying stay-at-home orders, putting them at a high risk to catch Coronavirus. Others are trying to talk to friends or

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meet new people online, but this can be difficult— many people have difficulty talking to strangers, and even if you can find a group that shares your interests online, such as a Discord server, it can be intimidating to try to meet people in a huge server with thousands of users, or a smaller server that has a close-knit community. This poses a large problem as one study found "meaningful daily interactions had the strongest associations with lower loneliness" [30]. Another study done in November of 2020 found that stay-at-home orders can be associated with depression and generalized anxiety disorder, which can increase the difficulty of socialization to an even higher level [38]. In order to address these problems, we are attempting to make a system that encourages people to meet by starting an event based on their common interests, giving them something to talk about immediately, and learn about the other people attending the event, rather than just talk to a group of people that they already know, and encourages new people to participate. It also encourages them to engage in hobbies that they enjoy, which is significantly related to mental health [44].

1.2 Domain Context

There are existing social applications that attempt to bring new people together, but many of these applications are lacking in a few key areas. Discord [26] and Reddit [48] both try to create online communities, but participating in these communities can often scare away new users, as their servers and subreddits respectively that are dedicated to certain topics often have a huge number of users (from the thousands to over a million), and they both lack the ability to plan events, focusing instead on creating discussion about the topics that each of these servers and subreddits are for; they don't have any tools to organize events, or even see any events that their communities are planning. Another website, Meetup [25], tries to bring people together by letting users create events, but lacks the proper tools to host these events online, as its main purpose is for creating in-person events. There's no way to filter the website to only show online events, and if you want to join an event, you have to specify a location, meaning that when users try to find online events, they have to repeatedly search for events in different cities, which makes it much harder to find online events. Many people, especially introverts, can benefit from more online interaction [47], and especially now that Coronavirus is a huge factor in many people's social activities, these platforms lack the ability to properly find online events to participate in. In addition, some people may want to branch out and find new hobbies or activities to participate in, which our application tries to encourage by letting people add tags (like gaming, art, sports, etc.) to their events and promote discovery, and all of these platforms lack the ability to filter events by general categories, rather than manually searching for a specific interest or activity.

1.3 Summary of Solution

Our solution is a social application that allows users to create online events for any of their interests, whether they be reading, watching TV and movies, gaming, sports, or anything else. A study on leisure activities found that "Enjoyable leisure activities, taken in the aggregate, are associated with psychosocial and physical measures relevant for health and well-being" [42]. In addition to this, it has been found that "The overall rating of social resources and the perceived adequacy of social resources... had a higher degree of association with the mental health measures." [34]. Bunch is an opportunity to provide these social resources for its users. By letting users create their own events, we're trying to encourage new groups of people to participate in each event and prevent new users from feeling left out. Studies have shown that people find it easier to meet others when they share common interests [41], and we believe that Bunch will help to bring like-minded people together and get to know each other through attending events. In each of the following sections, we'll describe in more detail how our application is different from existing platforms, the additional

features it offers, and the methodology for evaluating how successful we are at creating a platform that encourages new people to participate and create meaningful relationships with the people that they meet through our application.

1.4 Case Scenarios

There are two main audiences we're hoping to attract to use our application: people trying to find others who share their interests, and people trying to find new activities to participate in. Following are a couple of example scenarios showing how our platform appeals to both of these kinds of users. Joe recently started watching UFC videos on YouTube, and after asking his friends if they enjoy it too, was disappointed to find out that none of them do. In order to talk to new people who also appreciate UFC, he opens Bunch and creates a watch party for the next major UFC event. A few other people join his event, and Joe talks to them when the event starts, starting with their common interest in UFC and realizes that he has some other common interests with the other people in the event. He shares his contact information with a couple of the other attendees, and in the future Joe now has them to talk to about other UFC events, along with their other common interests. Jane has wanted to get into art, but doesn't really know where to start, or what medium she'd like to use. She goes to Bunch and clicks on the art category, and after browsing through a few events that don't seem that interesting to her, sees an event to watch *The Joy of Painting* and paint together. She buys a few basic supplies to get started, and when the event starts, she has the opportunity to talk to other, more experienced painters and get their advice on how to start, how to mix paints for the right colors, and once her painting is done, she shows it to the other attendees, who are able to offer her feedback on what she did well, and what she can improve on.

2 RELATED WORK

Establishing a unique and beneficial system for discovering hobbies and communities is at the heart of Bunch. Hopefully the benefits of such a system are obvious, so it comes as no surprise that there exist many other systems with the same goal. Bunch differs from these systems by focusing on events, allowing people with the same hobbies to meet new people and build communities around recurring events and shared interests. These two aspects are deeply ingrained in each other creating a unique system that we believe will have a more profound impact on the social lives of its users than any of the existing systems on the market. Most existing systems tend to focus on only one of the two key aspects of our system. Meetup, for example, is an application that allows users to form events locally in the user's area [25]. While Bunch offers similar functionality, Bunch differs by placing a focus on online events. This significantly increases the scope of available events and allows for users to reach a much larger audience. Another major missing feature is to add tags to events, which would help greatly in promoting discovery of new activities if you don't have something specific in mind. Meetup is great for simple event creation, but Bunch provides a robust system for discovering hobbies and joining new social groups. The application Far or Near is similar to Meetup in providing tools for finding local communities to join, but has the same problem of scope that Bunch solves [22]. It focuses on finding people close in proximity to the user, but the market is lacking in a system designed to find online communities and plan events with them. Eventful also focuses on location, allowing users to search their website for events in their local area [14]. These sites have similar ideas, but Bunch aims to take location out of the equation.

The main competition for Bunch comes from the wealth of community-focused applications. While many of these are competitors, we also view their successes as proof that a concept such as Bunch has a place in the market.

One of the most high-profile community-focused applications is Reddit. Reddit has notable differences when compared to Bunch. Reddit of course provides a way to group and find communities, but the main purpose of the application is essentially a link aggregator [48]. The concept of creating and organizing events through Reddit is non-existent and to

even try would be nearly impossible for any community larger than a couple hundred members. Still, Reddit's successes at forming communities proves that forming a close online community is very achievable.

Another success story of online group forming is Discord. Much of Discord is for existing communities, but a recent addition to allow for discovering servers has made it popular for finding new social groups [26]. Like Reddit, Discord's feature set is fundamentally different from Bunch's. Discord's functionality begins and ends at chatting, meaning it lacks the same event organization and structured communities that Reddit lacked. Once again however, Discord proved that online communities are possible. Between Reddit and Discord, both applications are encouraging when it comes to the future of online communities despite both apps going about it in radically different ways.

Furthermore, Eventee is an app that allows users to set up in person meetings. Some features that are similar to bunch are event setup. The differences are that Eventee plans to use their application to plan professional events such as business meetings. Therefore, it is hard to develop a sense of a strong community through the use of this application [8]. Also, this application creates in person meetings while Bunch creates virtual meetings for participants. Overall, Eventee is an app proven to help manage events successfully, but does not provide users a casual community feeling. On the other hand, Wylo is an application that is all about networking and connecting with like minded people. This application lets users collaborate with each other similar to popular social media. Unfortunately, this application does not provide users with connections through events. Therefore, this application shows that there is a great demand for community and connect with people through similarities [13]. Thus, Bunch will connect people through similar interests, these events could be games, watching parties, and other hobbies.

Additionally, Eventmobi is an event planning application for virtual and in person events. This application is a formal event planner therefore the application does not promote connectivity between users. Users cannot develop a sense of community because they are joining online events for conferences which is similar to using zoom [27]. Overall, this application is great to prove that events are helpful to organize virtual gatherings, but Bunch will focus specifically on developing a community around events.

Similarly, Bizzado is a virtual and in person event scheduling app that allows users to plan events and meet over video calls. Unfortunately, this is not a casual event planning website. At Least from the marketing this web application seems like it plans to merge zoom and google. This would allow users to schedule meetings/events for project related work, but not exactly for the purpose of social connection[29]. Furthermore, Bunch will support social interactions and event planning for more casual situations. For example, if users want to host a watch party or gaming event.

There do exist a wealth of applications that come close to Bunch's intended functionality, but they do so while focusing on a niche: the video game market. Apps such as GameTree [9], Moot [16], and GamerLink [24] all succeed in matching people together when it comes to playing video games, in addition to including ways to chat and social network in the gaming community. Where these apps differ is their singular focus on gaming. Bunch aims to be a place where anybody of any hobby can find people to share their interests with. Despite the differences in scale, these apps prove that there is a user base for finding people online.

Perhaps the main competitor to Bunch is the monolithic social network itself: Facebook. Facebook comes closest to Bunch's feature set if for no reason other than that Facebook boasts every feature that is trending. It provides both a method of creating events and communities but in characteristically different ways [7]. The first difference is that Facebook focuses primarily on local events. While possible to set up online events, Facebook is clearly not geared towards it which is abundantly clear through its interface. Finding events as a user is dependent upon location, so finding online events is virtually impossible. Facebook's groups are also meant to be small, local groups that are found through friends. Facebook does not have the infrastructure to assist users in finding new hobbies and online communities which

is exactly what Bunch is aiming to accomplish.

A number of social apps that attempt to bring individuals together rather than groups also exist. Among these are Skout, an application intended for meeting new people and trying new things [21]. However, its approach differs in that instead of focusing on events as opportunities to meet new people, users match individually with other people based on common interests, then they determine what they want to do. Bumble BFF also takes this approach, bringing people together by common interests but not specific activities [4]. An app called REALU exists that lets people meet in a similar way to Skout and Bumble BFF, but also allows users to create events like Bunch [19]. However, it's primarily focused on in-person interactions, and lacks the ability to tag and search for events, which hurts discoverability. Another app called Attending shares these weaknesses: while it's easy to make a page for an event, finding events to attend is a completely different story, not allowing for much flexibility when searching and lacking both tags and filters[18].

Vina is a social application that helps girls meet other girls and form friendships. Vina has a community side, allowing users to take quizzes and match with friends [1]. Bunch aims to help users make friends and find people with similar interests, but meeting in person isn't the main objective. Twoo, an online chatting tool, is geared more towards meeting people online [15]. The main purpose of Twoo is to give users a way to connect, while Bunch helps users find similar interests using events.

Gravy Events is an app that helps users find events based on their mood [11]. The events shown are based on physical location so users can find events they can easily attend. Our website, Bunch, will use event tags to group events into different categories. In this way, users can search for events based on their current mood. However, the events on Bunch will not be based on physical location.

While many existing products carry a subset of Bunch's features, none have matched Bunch in its entirety. Those that have come closest have accomplished significantly different goals by focusing on forming local communities and events rather than embracing the potential of online interactions. The few online-focused applications that are available are different to the point of not being significant competitors, but provide hope for the success of Bunch.

Nearify [17] touts itself as an app for letting you know of events happening near you, but it's also a cool way of meeting new people. You can easily check out what events your friends are liking or attending, as well as keep in the know about when your favorite musician or comedian is around. Unfortunately, Nearify has not been able to become a place where people can meet new people online. Our app Bunch is prided for being able to introduce new people virtually and be able to do things from the comfort of your own home, especially in the times of COVID-19. While Nearify would be a nice platform to meet new people in person It does not have the same platform for being able to meet people virtually. MeetMe [5] offers over 100 million people chatting, covering all ages, nationalities and backgrounds. In which case, you should be able to find someone who shares your interests, You can start the conversation via a form of status update giving people insight into your life, before delving further into things and maybe even making a new friend. Bunch is fundamentally different from MeetMe because Bunch tries to bring people together through specific activities and not common interests.

Both VRChat [2] and Rocket League [20] are game playing apps where you can connect with people online. However, with our app Bunch, we are able to let each individual create events and have others join. We have a plethora of options, specific to what people are actually interested in. Our main purpose is so that people are able to have a platform where anybody can find people who share the same interests and is not just focused on a singular aspect of gaming.

3 DESIGN

3.1 User Stories

- (1) As a user, I need to be able to browse events so that I can find ones I want to participate in.
- (2) As a user, I need to be able to filter events while browsing so that I can only see ones relevant to my interests.
- (3) As a user, I need to be able to search events so that I can find events for specific activities.
- (4) As a user, I need to add accepted events to my calendar so I can sync events inside the app with events elsewhere in my life.
- (5) As a user, I need to be able to view communities so that I can find a new social circle to join.
- (6) As a user, I need to get notifications about upcoming events so I don't miss out on events.
- (7) As a user I want to be able to join different communities so I am able to see events and activities related to that.
- (8) As a user, I need to be able to see all the communities I am a part of to know if any interesting events are happening.
- (9) As a user, I need to be able to create a profile so that I can share information about my interests.
- (10) As a user, when I join an event hosted by someone, I should be able to view which other users have joined.
- (11) As an event organizer, I need to be able to create new events so that users can discover the events I want to plan.
- (12) As an event organizer, I need to be able to edit event details after creating an event in case I make a mistake or need to clarify something.
- (13) As an event organizer, I need to be able to delete an event so I can reschedule if plans change.
- (14) As an event organizer, I need to be able to change ownership of an event so someone else can take over.
- (15) As an event organizer, I need to be able to see who all has joined my event so I can keep track of participation in my event.
- (16) As an event organizer, I should be able to have the ability to set a max number of people who can join my event.
- (17) As an event organizer, I need to be able to post updates for events in case some important details change that attendees need to know.
- (18) As a community member, I need to be able to view community updates so that I can keep track of recent events inside my community.
- (19) As a community leader, I need to be able to create communities so that users can find it.
- (20) As a community leader, I need to be able to link events to a community so that users can more easily discover it and see that my community is hosting an event.

3.2 Design Mockups

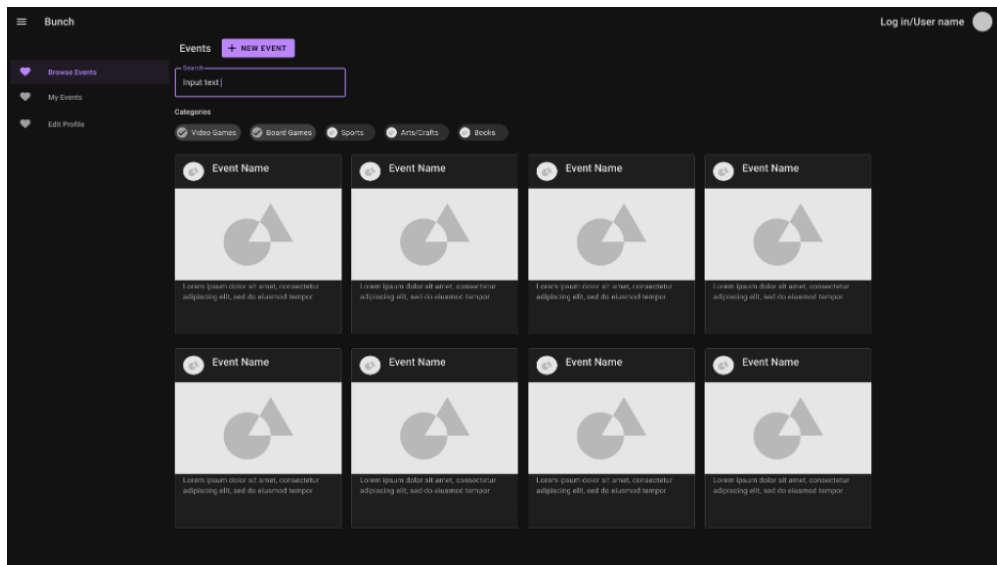


Fig. 1. Browse Events Page

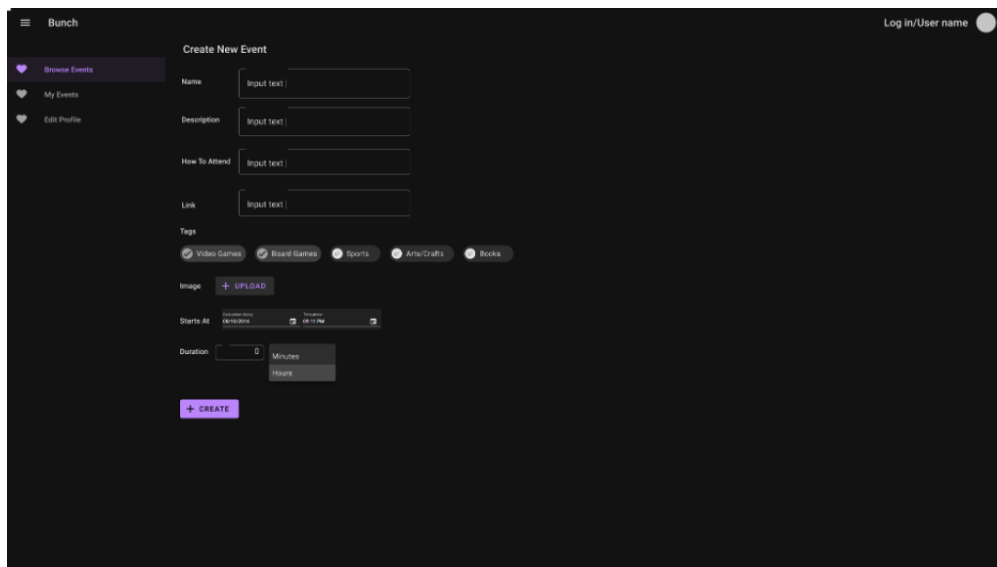


Fig. 2. Create Events Page

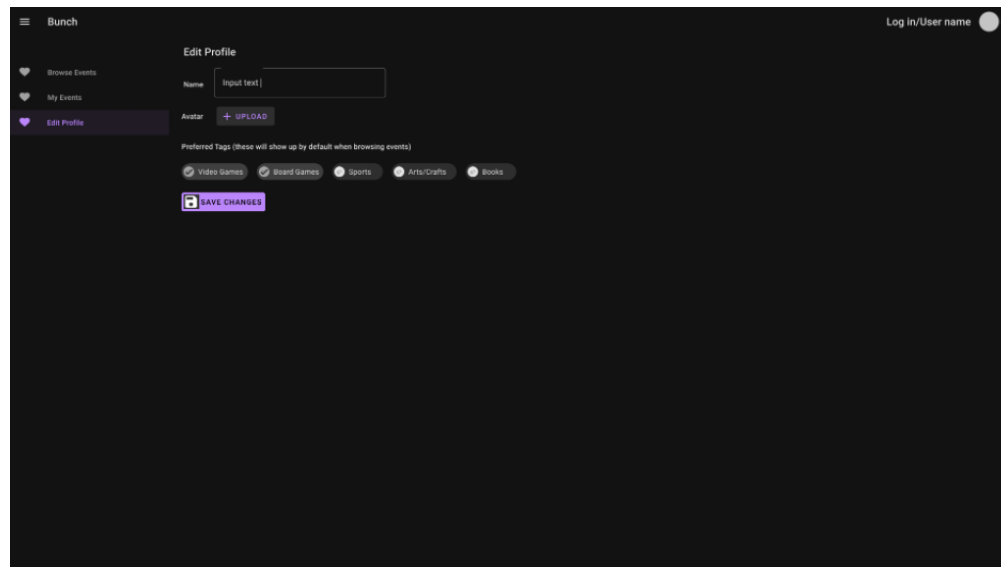


Fig. 3. Edit Profile Page

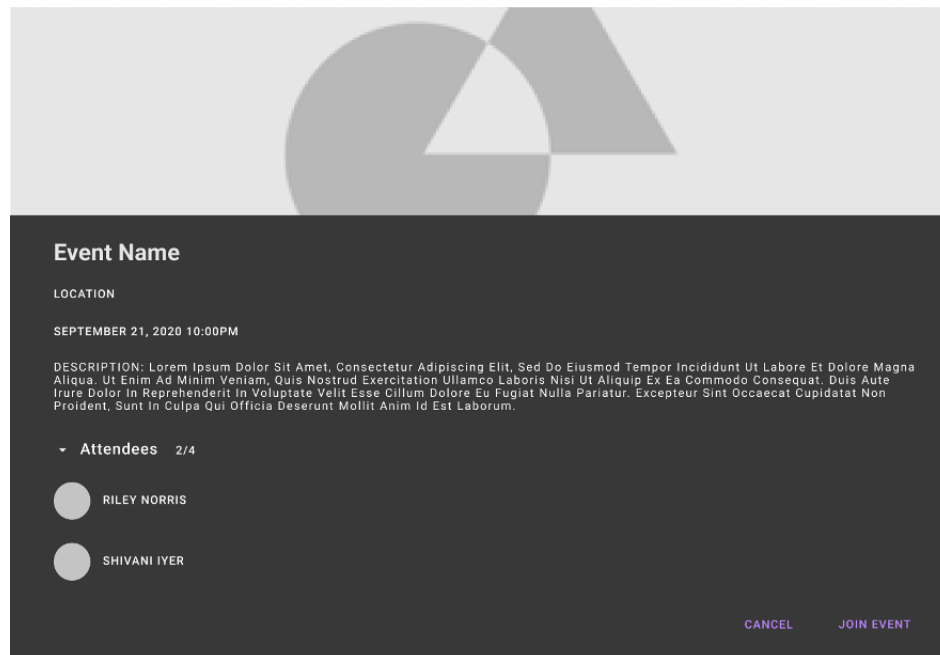


Fig. 4. Event Details Popup

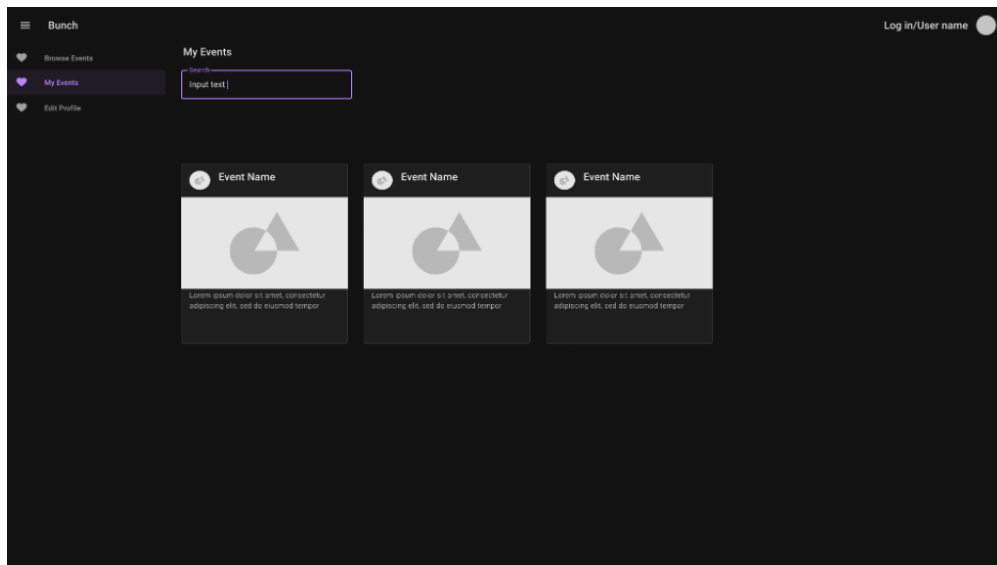


Fig. 5. My Events Page

4 SYSTEM

We developed this system by practicing agile methodologies. We divided our project work plan over 5 sprints. Our sprints would begin and end on every Sunday this is when we would evaluate all of our previous sprint material and assign new sprint material. We would build on top of previous sprint features and demonstrate newly developed features to group members [39]. Overall, in our Sunday meetings we would give and receive feedback to improve our future developments.

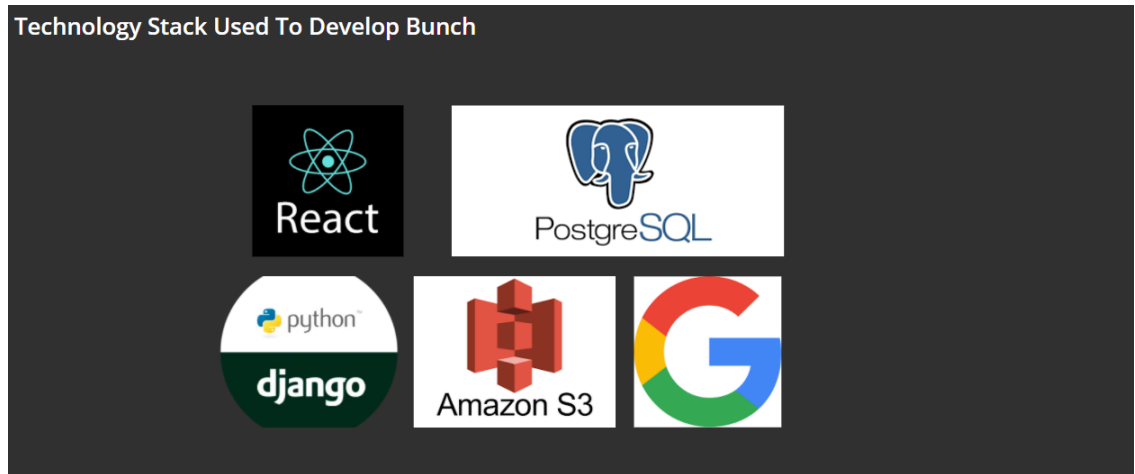


Fig. 6. Tech Stack

In order to develop our system we discussed many different technologies that could help us achieve our end goal, but we ultimately decided we wanted to use five specific technologies together. First we decided we wanted to develop our frontend software in React[10] using typescript[12]. This was an excellent choice for us because we were developing a web application and react is one of the most versatile frameworks for web development. Additionally, because React is a commonly used web framework it consists of many pre developed libraries we wanted to take advantage of. Specifically, the Material-UI[23] library provided us with many pre-built frontend components such as event cards, buttons, text boxes, navigation bar and more. We combined these beautifully styled HTML components into React components to provide users with the greatest experience [49]. Overall, we believe React was the best choice for us when developing our frontend.

Next we decided we wanted to develop our backend software in Django using python. This was because our team felt more comfortable with how Django[6] handles server calls to the backend. Additionally, Django provides Easy Database Migrations, URL routing, and more. As developers we made many changes to our database as we continued to follow agile methodology thus having fast database migrations made it easy for us to stay consistent with continuous development. Furthermore, because Django is a backend framework we used it mainly for its URL routing and API calls. We developed many different endpoints on the Django server and linked them to the frontend [3]. This allowed users to make simple button clicks that would execute instructions in the backend and return results. Lastly, Django platform has high priority for security thus making our application endpoints less susceptible to SQL injections and

other threats. Overall, we believe Django was the best choice for us when developing our backend.

Afterwards, we chose to use PostgreSQL as our database. This was a relational database where we stored all of our user information, event information, and event tags. We decided to use PostgreSQL because many of us had more experience working on relational databases vs non relational databases and also because PostgreSQL connects well with Django server. Thus when running migrations on our database through the backend server we had no issues. Unfortunately, we had a limited amount of storage allocated to our project in PostgreSQL so large amounts of data was not able to be stored in our database. This was an issue when we wanted to store images in our database for event cards. In order to get around this issue we decided to add another form of data storage, we chose to use AWS S3 bucket.

Amazon S3 is a great web service that allows users to store and retrieve any amount of data at any time. Additionally, Amazon S3 is scalable, reliable, fast and inexpensive to store data. Luckily, this was perfect in resolving our image storage issue. Therefore, we used S3 to store any all the images users uploaded such as profile images and event images. Next we stored their specific image ids from S3 to our PostgreSQL database then directly retrieved the image when needed from the frontend calls. Overall, this was the best way for us to store large scale images in our database and make sure our application still functioned with all the predefined technologies we selected.

Next, for user login we wanted to use a reliable authentication source thus we used google authentication. This allowed users with a Google account to become members of our website with a click of a button. Once users were registered their google authentication id was stored with their profile name in our PostgreSQL database. Furthermore, because Google has security measures to protect user Identity we did not have to worry much about the security aspect of saving user information. Overall, we believe Google Authentication saved us a lot of time in developing a login page by connecting users through their secure APIs.

Additionally, to manage all of our code and we decided to use Github. This software allowed us to code in parallel within sprints. Github allowed us to manage version control and work on prior branches depending on if we liked how features were implemented. Without Github it would have been difficult to complete as much implementation as we did. Overall, Github was extremely helpful for feedback and managing our sprints and continuous integration.

Lastly, after we completed all testing and sprint code, we discussed the different options to host our web application. Some suggested options were Github pages, Netlify, and Heroku. We decided not to use Github pages because it did not seem to support any database configurations, thus causing our web application not to function properly. Netlify was a great hosting web application but most of us had more experience with Heroku. Therefore, we decided to host our web application on Heroku because they are a secure and versatile platform for integrating local components to online hosted components. Additionally, we had a smooth transition connecting Heroku because it was able to use the code we had on github to work on the development branch. Overall, we were satisfied with Heroku but if we could go back and re host our application we would change it to AWS hosting because we are already using AWS S3. Therefore, connecting AWS EC2 and S3 would be much smoother and easier to work with [28].

Now that we have described the five individual components we used to develop our web application, we will explain how the individual components interact with each other to develop a full system architecture. The image below will guide you through the different connections and components that are connected within the architecture.

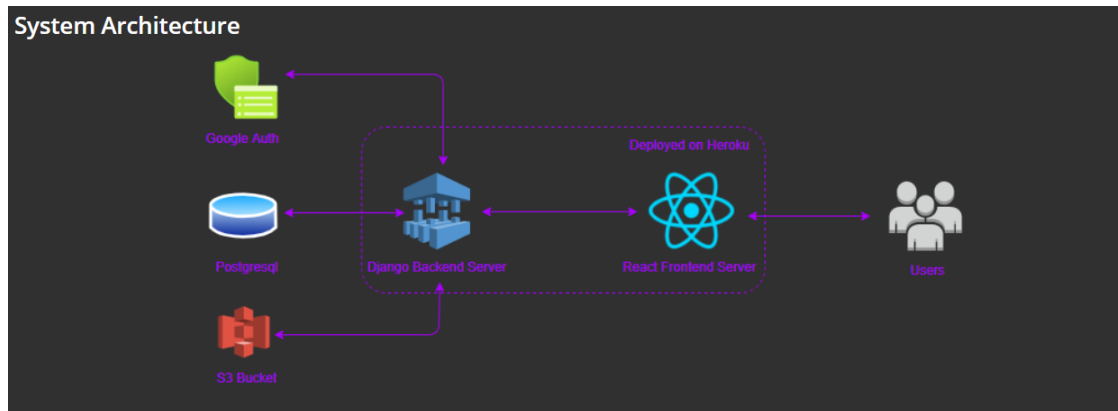


Fig. 7. System Architecture

First when users go to the Bunch home they are met with the React Typescript frontend components. This is where users can login, view events, and create events. If a user decides to login to our website, they will click a button that will send a message through the Django backend server to authenticate their profile through Google auth. Next, the Django server will initialize a database entry in our PostgreSQL relational database with the users profile name and Google authentication id. Now the user has fully registered for our web application.

Now if the users wants to update their profile with a picture they can do so by uploading an image on the frontend and clicking save. Once the save button is pressed the Django backend server uploads the image to S3 bucket, retrieves the unique id for the image from S3 and stores the image id in the users PostgreSQL database entry. This makes it easy to retrieve the profile image of a user from S3 when necessary.

Next, if a user wants to create an event the user must click create event which opens a dialog that asks for event information. Once all event information is filled out the user may select create event. This makes an API call through the Django server that initializes the event in the database and retrieves an image id for the event image. Now the user can view the event on the React frontend amongst other events that are stored in the database.

Lastly, if a user wants to register for an event the user must view the event on the frontend and select register. Once they have registered the event id is stored in the user's database as "registered events" this identifies what events the user is registered to attend. Additionally, the user id is stored in the event's database as "attending users" this identifies all the users attending the event. Once this action is complete the user can see in the my event tab the specific event they are registered to attend.

Ultimately, this describes how our system components function together to provide a whole system architecture.

5 RESULTS

5.1 Evaluation Setup

5.1.1 Purpose. With the world in the midst of the coronavirus pandemic, nearly 45% of Americans are working from home [33]. Other portions of the population, such as college students, are also staying home to help stop the spread of the virus. Before the pandemic, studies showed that almost half of adults felt loneliness [37]. Remaining separated from society during the pandemic has increased these numbers. In addition, a large number of people are coping with symptoms of depression and anxiety [31].

When creating Bunch, we planned to use it as a tool for reducing symptoms of social anxiety and isolation. Our website allows users to create events online that will take place online, opening up the gathering to users who may not be in the same physical location. People who feel isolated can attend events remotely with friends or meet someone new. Users who aren't quite sure what type of events they would like to attend can find new activities and meet other users who are interested in the same activities.

To evaluate our system, we aimed to design a study that captured results on usability as well as the overall effectiveness of our website. In order to do this, we needed to gauge the initial state of the user's emotions such as social anxiety and loneliness. In addition, our results needed to include feedback on the usability and design of our website.

5.1.2 Participants. In this study, we plan to evaluate our application through a human-centered approach. Our sample size will consist of 20 English speaking participants over the age of 18 or older. Additionally, the participants will be required to have some prior knowledge of online hobbies such as video games or board games. The participants must have a stable internet connection and computer to participate in activities.

In order to recruit participants for our evaluation, we created multiple different ways to attract participants to our user study. First we created a recruitment script that we plan to send to Texas AM University bulk mail, human computer interaction students, disability office, and general Texas AM University computer science students. With this recruitment script we plan to attract computer scientists who are interested in participating in online fun events. Additionally, we created flyers that will be distributed to Texas AM organizations around the campus. Overall, both these recruitment methods will be used to spread awareness of our application and attract Texas AM students. Also, we plan to attract users through verbal recruitment. This is a less formal recruitment process and will be used to recruit classmates and peers through zoom and discord. Furthermore, to diversify our evaluation sample size we plan to send out a longer social networking script that will be posted on social media platforms such as Facebook and Reddit. Also, we will create a short social networking script to be posted on social media platforms such as twitter. Overall, This will allow us to recruit participants who are not Texas AM students but still are interested in participating in online hobbies.

5.1.3 Preparation. Before asking users to evaluate the quality of our system's user experience, we created 15 fake events so that users could experience how browsing the site would feel with a good amount of choice for the events they can attend. We also created three real events that participants could choose from in order to determine the effectiveness of our platform as a tool for inviting social interaction.

After recruiting participants, we also prepared our site for testing with 15 fake events and 3 real events. These events will be used during a testing phase of our evaluation. Beyond the technical portion of the evaluation, we also designed a pre-survey, user interview, and post-survey for our participants to partake in. Each of these is detailed in the following section.

5.2 Evaluation Details

If successful, Bunch will significantly reduce social anxiety and isolation by providing a website for users to find new social groups and hobbies. Providing an intuitive and organized interface for users to view communities and online events will allow them to find hobbies and friends that they never would have been able to find otherwise. Since the goal of our application is to improve mental health, we will measure the severity of mental health symptoms, how they change after using our application, and whether users feel like our application could be a useful tool for improving mental health. If our test group shows an improvement in symptoms after using our application, then our application has been successful. If users state that they believe our system could also help their symptoms in the future, it would mean our system is successful.

5.2.1 Metrics. We divided our evaluation into four separate stages: pre-survey, user testing, user interview, and post-survey. Each of these is specifically designed to capture feedback on every aspect of our project. The pre-survey is the first portion of the evaluation that our participants complete following their given consent. The pre-survey is designed to understand our participants better and establish whether there is a need for bunch. The pre-survey will ask participants questions about their social life, how they form relationships, and whether online applications play a role in their social life. These questions will inform the team on whether Bunch is addressing the actual needs of its users. After the participant is finished with the pre-survey they will begin testing our application. They will be asked to share their screen, consent to a recording of the screen, then be given a link to Bunch. The participant will then be asked to choose one of three personas to test the application with. The available personas are: video game player, board game player, and sports enthusiast. The participant will then be given simple instructions such as "Create an event" and they will perform the action as their chosen persona. The user will also be asked to audibly commentate their thoughts as they move about the application. This part of the evaluation is essential to exposing design flaws in the application. Since instructions are left vague and users will be announcing their thoughts while stepping through the application, we will be able to find where users get lost or confused. The personas allow the users to evaluate the system even if they are not the target demographic, which gives us more informative information while not needing to be as selective about our participants.

Immediately following the user testing, the participant will be given an interview. This interview is short and targets specific aspects of the design of the application while also opening discussion for feedback. The user will be asked questions such as "How did you feel about adding an event" which allows for getting direct feedback on specific features of the application. At the end of the interview the participant will choose a real event to choose from, they will then join this event at the specified time.

Finally, the participant will complete a post-survey after participating in the real event they had signed up for. This short survey simply gets information on their ease of joining the event and their overall thoughts on Bunch. This survey should detail the effectiveness of the application in solving the problem.

5.3 Evaluation Results

5.3.1 Quantitative Results. For our evaluation, we gathered quantitative feedback from our two surveys. The format of these two surveys made them excellent for gathering likert-scale feedback, although qualitative questions were also captured and are discussed in the next section. The quantitative results from these surveys are detailed below.

Pre-Survey (25 Participants, Scale 1-5)

Question	Average Response
I find it difficult to meet new people.	3.32
I am more introverted rather than extroverted.	3.2
I feel that quarantine has made it harder to meet new people.	4.68
I feel that quarantine has made it harder to connect with current friends and family.	4.12
I feel like I lack meaningful relationships with the people around me.	3
I find it difficult to find people interested in my hobbies.	3.04
I feel more comfortable meeting people online.	3.12

Post-Survey (16 Participants, Scale 1-5)

Question	Average Response
I found it easy to register for an event.	4.94
I found it easy to find events that I registered for.	4.88
I felt involved in the event I attended.	4.69
I enjoyed the event I attended.	4.50
I enjoyed the design of this application.	4.81
I believe this website could be a useful tool for finding groups of people to interact with.	4.69
I can see myself using this application in the future to create or attend events.	3.88

5.3.2 *Qualitative Results.* Qualitative feedback was also captured through all four of the evaluations in varying degrees. The surveys only captured a few points of qualitative data, however the user test and interview captured very valuable data. All of this data is provided below.

Pre-Survey (25 Participants, Free Response)

If you moved to a new place, how would you meet new people (aside from the workplace)?

While various responses were given, 11/25 responses mentioned some sort of social media or online application. Most of the other responses either revolved around meeting people through mutual friends or by joining local clubs/hobbies.

What types of social activities do you participate in online, or would you be interested in doing online?

15/25 responses mentioned gaming, while the rest of the responses were a vague answer of "social media" or "nothing".

What are your thoughts on online vs. in person relationships?

12/25 responses skewed towards in-person relationships, citing that it is easier to form more developed relationships in person. The remaining 13 participants believed that online relationships were equal or better than in-person relationships, giving reasons such as people feeling more comfortable when online, people feeling less filtered, and people feeling more safe when interacting with new people.

User Test and Interview (16 Participants)

Given that the test and interview were very closely intertwined, the results will be combined into this one section.

These data points were designed to capture the user's thoughts around the application's design. The following questions were asked to the participants.

- When using the website, did you run into any major problems that prevented you from easily browsing and registering for events?
- Are there any smaller issues you encountered that made using the website difficult?
- What parts of the website were most confusing, or difficult to use, for you?
- What features did you find the most useful?
- Are there any features we could add that would have improved your experience?
- Do you use any websites or apps that have a similar functionality?
- How does ours compare to those websites/apps?
- What do you like the most about them, and do you think that our website is missing anything that you like about them?
- Is there anything else you'd like to mention to us that could improve your experience?

This portion of testing gave the most valuable design feedback. This interview exposed some confusion with setting times for events and what filters were actively chosen. On the positive side, it also revealed that the navigation of the site was easy to understand and browsing for events was seamless. This interview also informed the team of some future feature ideas. Users thought it would be nice to differentiate event titles some more, color code tags, send event reminders via email, and have calendar integrations. One user also recommended including a recommendation algorithm so users can find events similar to ones they have already participated in. Finally, users also mentioned there were no websites that did exactly what Bunch did, however Facebook Events were brought up a couple times as something similar.

Post-Survey (16 Participants, Free Response)

Our post-survey asked one final question to get any closing thoughts from the participants.

Is there anything else about your experience you would like to share?

This question was optional and only received 7 responses. The responses were all some variation of positivity with several users highlighting the effectiveness of Bunch during the COVID-19 pandemic.

6 DISCUSSION

By looking at the trends in the pre-survey data, it can be concluded that users feel like quarantine has made it more difficult to stay connected and meet new people. This proves that Bunch would be beneficial to the general public. The average response to the question *I find it difficult to meet new people* was 3.32. While this response is more neutral, the mode response was 4 meaning the users agreed with the statement. A total of 60% of users responded with 4 or 5 for this question, meaning they agreed or strongly agreed. For the question *I feel that quarantine has made it harder to meet new people*, the average response was 4.68 and the mode response was 5. On this question alone, 80% of users strongly agreed with the statement. Our pre-survey results showed a large amount of users have been affected by our current situation. We refrained from asking any questions related to mental health to ensure users felt comfortable participating in our study, but we can make connections using statistics from previous studies. For example, a study done in 2016 found that subjective closeness to friends and family can increase feelings of depression [45]. As users are more isolated and have a harder time connecting with friends and family, their mental health can decrease. Studies have

also shown that having solid social relationships is a key factor in recovering from mental illnesses [43]. This shows that lack of social interactions and relationships can take a large toll on user health. We created Bunch to counter this. As people continue to have difficulties connecting with others, the need for a website like Bunch grows. It was created as a tool to help users interact with others online, helping users overcome the feelings of depression stemming from isolation.

After testing our website and attending an event, users were asked to take a post-survey to evaluate the effectiveness of Bunch. The first two questions of the survey gave insight on how usable our website was. For the statements *I found it easy to register for an event* and *I found it easy to find events that I registered for*, the average response was 4.94 and 4.88 respectively. This average shows that the majority of users found our website intuitive and easy to use. As for design, a study done in 2010 found that website design and color appeal is a significant determinant for users when deciding on if they should trust a website, as well as overall satisfaction [32]. Our results for website satisfaction, along with this information, show that users enjoyed our website color scheme and overall design. The average response for the statement *I enjoyed the design of this application* was 4.81 meaning the majority of users agreed or strongly agreed. Based on the survey responses and the interview feedback from users, the design and setup of our website had a positive response.

When comparing the initial results to the results from the post-survey, a positive trend is shown. The final survey shows that the majority of users agreed or strongly agreed with the statement *I believe this website could be a useful tool for finding groups of people to interact with*. Compared to the large amount of users that responded they had issues connecting with people due to social distancing and working remotely, this response shows that users are willing to use Bunch in the future. This, in addition to the fact that social media usage is up 10.5% this year alone due to the pandemic, bodes well for our website [36]. Overall, Bunch could be an effective tool to help people connect with others and meet new people.

7 FUTURE WORK

While the team believes the current iteration of Bunch is an excellent minimum viable product, there are still several features and improvements that could be made to enhance Bunch's effectiveness. While the system is passable in its current state, some improvements would be necessary for Bunch to maintain any amount of market control. For clarity, improvements to existing features and additional features will be divided into two sections below.

7.0.1 Improvements. Many of Bunch's improvements were exposed during the testing stage of the app's evaluation. Using the received feedback, we can iterate on Bunch's design to make the website clearer and easier to use to eliminate friction for the users. A large source of friction came from the application's implementation of setting a time for a new event. The current method of stylishly selecting a time from an animated clock should be replaced with a simpler control such as a number-restricted text field. Another source of confusion was the tag system. While setting tags was not an issue, the toggle to show/hide tags created a situation where users would hide the tag selection menu then forget they had any tags applied. This could be easily mitigated by indicating that tags are applied next to the toggle button. Some improvements mentioned by the study participants were iterations on the current features. One such example of this was color coding tags. The current implementation only distinguishes between tags by using a different icon, but assigning different colors to tags would allow for more information at a glance while also adding more colors to the

application. Users also suggested some slight redesigns of the event cards to add distinctions between the event title and the rest of the data. This could be solved by bolding event titles and modifying spacing and font sizes to ensure text does not blend together.

7.0.2 New Features. In addition to improvements on existing features, there is a wide variety of new features that would assist Bunch in becoming a fully featured platform. The main improvements needed are assisting users with participating in events. Currently there is no system to remind users when events are about to take place, which poses a big problem since people need to show up for events for the platform to be successful. There are several methods to solving this problem. The first is to simply remind users of upcoming events. Some simple ways of doing this are to email, text, or send browser notifications to users. Browser notifications are relatively simple to setup, but are not effective unless users are actively at their computers. Because of this, email or text options would need to be available, although these solutions are also harder to implement and also often cost money through some third party system. Another way to combat the issue of users missing events is to ensure the event never leaves their radar. The ability to add events to calendars would ensure users can always keep track of an incoming event, and the built in notifications for calendar events also helps with the notification issue mentioned previously.

Some other future feature ideas assist users with using the application. A user from the evaluation mentioned adding a recommendation engine to recommend events the current user would be interested in. This is a logical next step and would greatly improve the experience of the application for the users of Bunch. There would need to be a relatively large amount of work to implement such a feature, but its benefits are obvious and would be more helpful as more users continue to use the platform. One final way to improve Bunch is to expand its social capabilities. While Bunch is very specifically designed to not hold events or become a social hub itself, adding the functionality for comments on events would allow users to ask questions to an event holder. This would allow users to ensure an event is right for them prior to them participating in the event.

8 CONCLUSION

Overall, our user studies were very successful. 75% of respondents strongly agreed with the statement that they "thought the website could be a useful tool for finding groups of people to interact with", and over half said that they could see themselves using it in the future to create or attend events. While it will certainly be difficult to get an initial user base to create and attend events, as well as ensure that users regularly visit the site to attend new events, these statistics are very promising and show that our site has the potential to grow.

In addition, all of our questions about usability and the user experience had over 80% of respondents give strongly positive responses, and our free response section had nothing but positive feedback, with the main sentiments being that the website was easy to use, and that they believed it was a good way to communicate with others and make new friends. Our interviews showed some small issues with usability, such as the inability to cancel registration for events. In a less controlled environment, it may be useful to give users reminders to attend events they sign up for, as some users interviewed were curious if these reminders would be provided, and these reminders should help in retaining users and encouraging them to keep their commitments to attend events.

Our interviews definitely gave us the most actionable feedback in contrast to the mostly positive feedback from the surveys. Given more development time, we should be able to polish the website further and incorporate most of this feedback in order to create an even more positive user experience. Keeping this feedback in mind, as well as ways that we can grow our user base (likely by focusing on a particular kind of user, such as people who play video games), it

seems that we have a very solid foundation for an easy-to-use platform that people can use to meet others and create positive experiences.

A PROJECT MANAGEMENT

A.1 Implementation Schedule

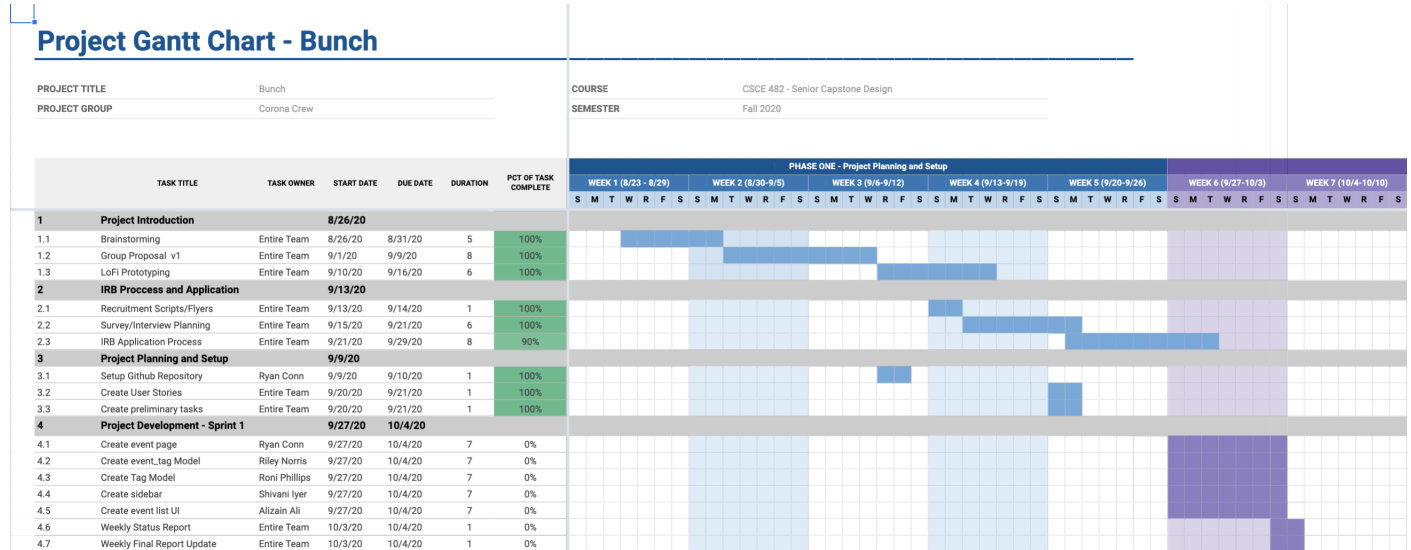


Fig. 8. Tasks 1-4

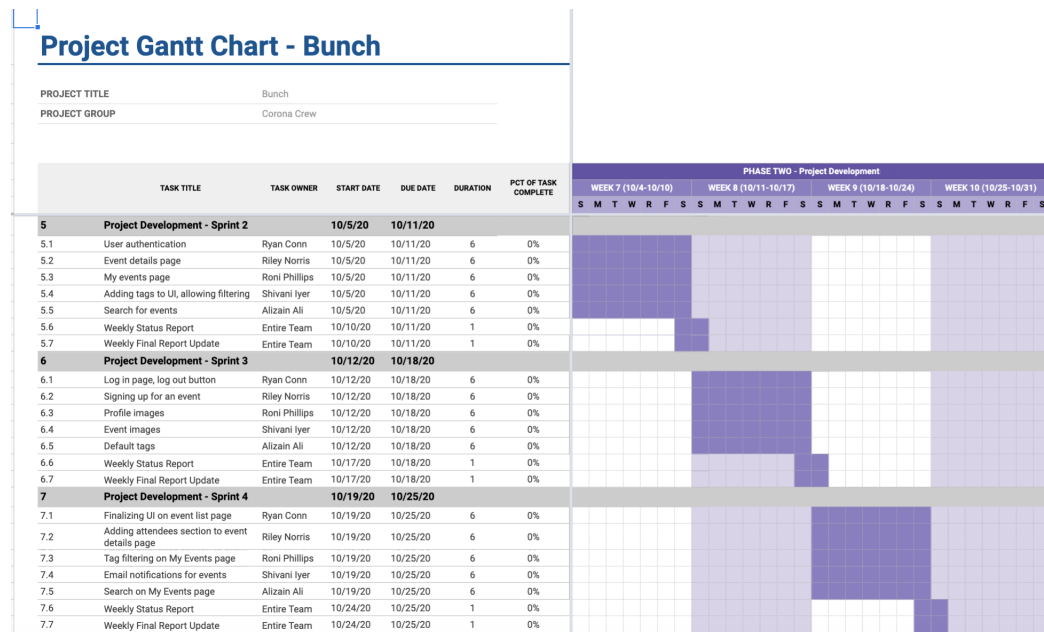


Fig. 9. Tasks 5-7

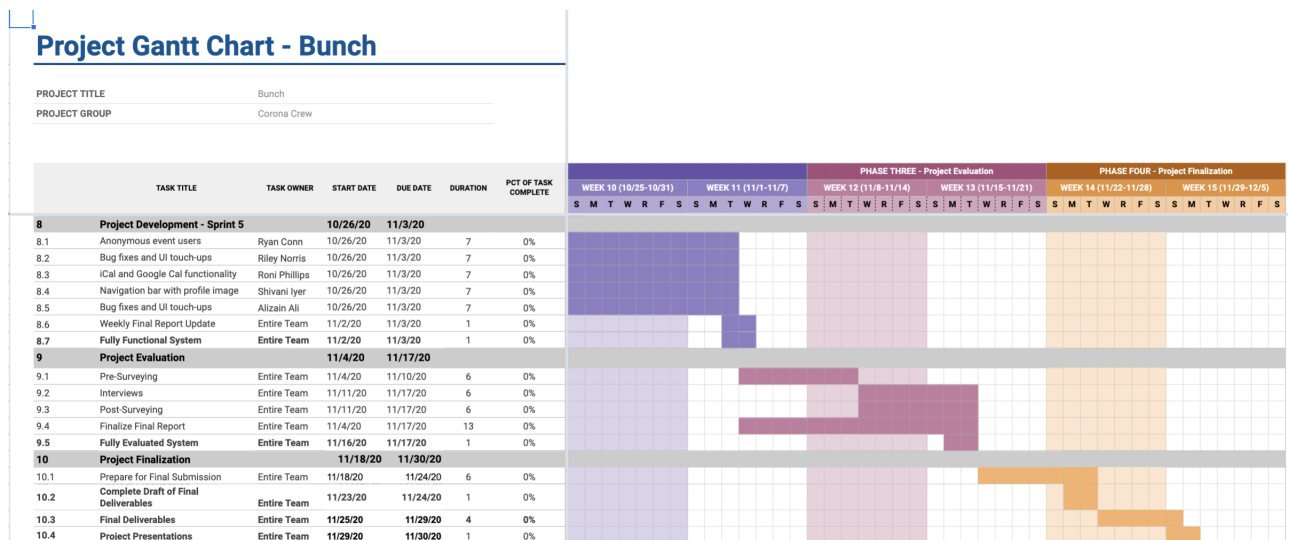


Fig. 10. Tasks 8-10

We created our Gantt chart at the very beginning before we implemented anything, around last August. When we created this schedule, we broke the process of the project into 10 different steps. The steps included: Project Introduction, IRB Process and Application, Project Planning and Setup, Project Development (Sprint 1-5), Project Evaluation, and Project Finalization. We set aside approximately the first 2-3 weeks into doing initial requirements for the projects,

such as the IRB Application, which was inherent to get approved. We also set aside trying to solidify the requirements we wanted as a group for our project. After that we decided we would begin the project development and estimated a rough 5-6 weeks for that. While we stayed on schedule for the most part, there were times where we would have issues so we would have to stray off the schedule and couldn't get the tasks we were assigned done within a week. However, with the help of all our teammates we worked together to solve these issues so we were struggling to catch up. After we finished the development of the project, we decided we were going to take about a week to evaluate our project. This included sending out a pre-survey for our application, conducting interviews as well as having people attend an event and take the post-survey. We needed to evaluate a minimum of twenty people, so we knew if we split that up between the five of us, it would not take that long; hence, we only set aside one week for that. After the project evaluation, we set aside one week to finalize our projects. This time period included making sure our evaluated system didn't have any bugs in it. It also included making sure all reports for our projects were taken care of and the website we were hosting our application on was fully functional.

A.2 Validation and Testing Procedures

For our user studies, our target audience were people who are looking to discover new events and communities to join. In the future, we specifically want to target those individuals who have moved to a new city or are young professionals and do not know anyone and are looking to meet new people. We also want to target those specific people who are maybe more introverted and find it hard to meet people in person and prefer to meet people through a virtual platform. We selected 20 different people for our user study. These people were random people in class or just some friends that we hoped would evaluate our system.

The first thing we had these people do was fill out an anonymous survey before testing our application and after using our application to attend an event. The pre-test survey had them rate their levels of depression, anxiety, loneliness, boredom, etc. In the post-test survey, we asked users the same question from the first survey with the addition of questions about how they felt about our application. These questions included how they felt Bunch would affect them in the future and if they felt our application was effective for finding events to attend. We asked our users if symptoms of depression and anxiety improve from using our application, and if they think it could help with these symptoms after continued use.

Since the goal of our application is to improve mental health, these factors aren't important to the results of our user study. We will measure the severity of mental health symptoms, how they change after using our application, and whether users feel like our application could be a useful tool for improving their mental health. If our test group believed that after using our application people's mental health can be improved, then our application has been successful. If users state they believe our system could also help their symptoms in the future, it would mean our system is successful.

A.3 Division of Labor and Responsibilities

At the very beginning of this project, we split up all the tasks between each member of our team. Our team was pretty split up in how much knowledge we had on the technologies we were planning on using during this project. The members of our teams that worked mainly on frontend were Ali and Shivani. The members of our team that mainly worked on backend and database were Ryan, Roni and Riley. Below is a more in depth analysis of what each member did and when:

Ali

- Create event list UI -> Sprint 1 due 10/4/20
- Search for events -> Sprint 2 due 10/11/20
- Default tags -> Sprint 3 due 10/18/20
- Search on My Events page -> Sprint 4 due 10/25/20
- Bug fixes and UI touch ups -> Sprint 5 due 11/3/20

Shivani

- Create sidebar -> Sprint 1 due 10/4/20
- Adding tags to UI, allowing filtering -> Sprint 2 due 10/11/20
- Event images -> Sprint 3 due 10/18/20
- Anonymous event users -> Sprint 4 due 10/25/20
- Navigation bar with profile images -> Sprint 5 due 11/3/20

Ryan

- Setup Github Repository -> Project Planning and Setup due 9/10/20
- Create event page -> Sprint 1 due 10/4/20
- User authentication -> Sprint 2 due 10/11/20
- Log in page, log out button -> Sprint 3 due 10/18/20
- Finalizing UI on event list page -> Sprint 4 due 10/25/20
- Bug fixes and UI touch ups -> Sprint 5 due 11/3/20

Roni

- IRB Application Process
- Create tag model -> Sprint 1 due 10/4/20
- My events page -> Sprint 2 due 10/11/20
- Signing up for an event -> Sprint 3 due 10/18/20
- Tag filtering on My Events page -> Sprint 4 due 10/25/20
- Anonymous event users -> Sprint 5 due 11/3/20

Riley

- Create event tag model -> Sprint 1 due 10/4/20
- Event details page -> Sprint 2 due 10/11/20
- Signing up for an event -> Sprint 3 due 10/18/20
- Adding attendees section to event details page -> Sprint 4 due 10/25/20
- Hosting the website -> Sprint 5 due 11/3/20

Everyone

- Brainstorming -> Project Introduction due 8/31/20
- Group Proposal v1 -> Project Introduction due 9/9/20
- LoFi Prototyping -> Project Introduction due 9/16/20
- Recruitment Scripts/Flyers -> IRB Process and Application due 9/14/20
- Survey/Interview Planning -> IRB Process and Application due 9/21/20
- IRB Application Process -> IRB Process and Application due 9/29/20
- Weekly Status Report -> Sprints
- Weekly Final Report Update -> Sprints
- Pre-Surveying -> Project Evaluation due 11/10/20
- Interviews -> Project Evaluation due 11/17/20
- Post-Surveying -> Project Evaluation due 11/17/20
- Finalize Final Report -> Project Finalization due 11/29/20
- Project Presentation Project Presentations -> Project Finalization due 11/30/20

Everyone worked equally on all the deliverables that were due throughout the span of this project. Each person was assigned something to do throughout the sprints, which is also listed above.

A.4 Budget Costs

Internal Course Equipment Needs	
Personal Computers Previously Purchased	\$0
Web Server Hosting	\$20
Database Hosting	\$30
Domain Hosting	\$2
Total	\$52

Fig. 11. Internal Course Equipment Needs

Monthly Upkeep Costs (to an Outside Company)			
Web Server Hosting	1	$\times \$1 =$	\$1
Database Hosting	1	$\times \$20 =$	\$20
Domain Hosting	1	$\times \$1 =$	\$1
Application Maintenance	1	$\times \$1200 =$	\$1200
Total			\$1222

Fig. 12. Monthly Upkeep Costs

Development Costs (to an Outside Company)			
Personal Computers	5	$\times \$1200 =$	\$6000
Web Server Hosting	1	$\times \$20 =$	\$20
Database Hosting	1	$\times \$30 =$	\$30
Domain Hosting	1	$\times \$2 =$	\$2
Cost of Labor (\$30/hr, 120 hrs/person)	600	$\times \$30 =$	\$18000
Total			\$24052

Fig. 13. Development Costs

By far the biggest cost in developing our system was the cost of labor and the computers we used. Other than that, we found some very cheap hosting options to keep the website running, and most of them would scale pretty well if the website grows. The biggest concern going forward is the cost of maintenance with our estimate of 1200 dollars a month, but that number could be higher or lower depending on how much active maintenance the company would want.

B ENGINEERING STANDARD

B.0.1 Environmental and Health/Safety Concerns. Due to the fact that our idea is web-based, there will be no environmental issues. However, some safety issues that emerge from Bunch are the fact that this is still an online platform and no one knows who is actually behind a username. While our target audience are people who are young adults, we don't know who might join this app, and there is no way for us to deny those people access. For example, we can have young children on here who are not even of legal age try to join this application and could potentially be interacting

with people much older than them. On the flip side, we could also have older people trying to interact with minors, which is also incredibly unsafe. In a world where technology is so prevalent and is used on a daily, hourly basis, there is no way for us to monitor these issues, other than to proceed with caution. Besides the safety concerns, there are also some health concerns that go hand in hand with technology. While this application is mainly promoted to reduce loneliness and increase social interaction, it could have a negative effect on your health. Headaches from computers are often caused by computer vision syndrome (CVS). If you spend extended periods of time on it, you might get a headache due to the glare on the screen, poor lighting in your workspace, improper computer brightness and color, or a combination of these factors. Countless studies have proven that the backlights from our laptops and desktops make us have headaches and migraines, can make us feel lethargic even after a good night's sleep and less able to concentrate on important things. Hence, using Bunch and your technological device in general, in moderation will prove to be the healthiest route to take, as to not have adverse effects on your health.

B.0.2 Social, Political, and Ethical Concerns. The biggest issues that will stem from Bunch are our social, political, and ethical concerns. Social platforms in general can be harmful and our biggest concern lies in cyberbullying. In a technology driven world, people these days have no mercy in how one's comment can affect another. People don't think about the consequences and just write whatever they want on social media, which can go on to become big issues. According to a study done by ACOG Clinical, 20-40% of adults have reported to have faced cyberbullying. Bullying has been associated with other physical health effects, including stomachaches, sleep problems, headaches, tension, bed-wetting, fatigue, and poor appetite. It has also been said that bullying has been associated with increased substance abuse, violent behavior, unsafe sexual behavior, suicidal behavior, and likelihood to carry a weapon. While there are many outcomes to bullying, some being extreme, we must acknowledge that cyberbullying is an issue that could exist with Bunch. While social concerns will always be an issue no matter what social platform you interact on, political concerns are no less. Because our application allows users to host and attend any kind of event, including political events, we have to be aware of the fact that political issues can rise with this. Every person is entitled to their own political opinion, and while some make a decision to remain silent on it, some people use social platforms to argue and fight about politics, which could lead to online fighting and even cyberbullying. Additionally, social media has currently drawn attention for their role in spreading misleading information, facilitating political manipulation, and increasing violence and hate crimes. All these concerns lead us to our ethical issues. Can we prevent these social and political concerns by moderating our application? Some will say this is an invasion of privacy, while others will say we are taking preventative measures against negative use of social media. Another ethical concern also includes dishonest advertising regarding events/activities occurring. All in all, our social, political, health/safety and environmental concerns tie into ethical issues whether something is ethical or not.

B.0.3 Manufacturability, Sustainability, and Economics. This product will be an online platform, meaning nothing has to be manufactured. We will first create this as a web application and then we will try to make it into a mobile application; however, our main focus will be to create a web version of this application. We hope to create a website that has an easy user interface so that people will be able to navigate through the website easily. By the end of the semester, we hope to have completely finished this project. Essentially, we hope to have the application running and people using it. We want there to be heavy marketing of our application all through the AM campus and plan on telling lots of people we know. After our user studies, we will get feedback from them on what we can improve and how to make sure that this application will be a success once it is completed. We hope through this feedback we can implement whatever needs to be done and so that when we graduate this application is known. We can ensure that this project still functions

by making sure the website is up to date and that we still moderate the website every now and then. Some websites are very outdated and when people sign up for these platforms, there is no moderator. We hope to continue to make sure things are up to date and that the process to use our application stays easy, and any needed changes are similarly easy to implement through continuous integration and deployment. In this current economic atmosphere, many people are going to want to use our application. What we mean by this is that this idea was spurred due to the fact that we have to social distance due to COVID-19 and spend so much time inside and by ourselves. This application will help us combat our loneliness during this time and just in general will be a platform where we can meet new people. COVID-19 has affected people in many different ways. People keep more to themselves now to be safe. People are losing jobs. Work is going online, as is school. So many things are now moving to a virtual platform. Our application will have communities and all of these will be virtual which will accommodate our lifestyle in this current climate.

C IRB MATERIALS

C.1 IRB Application

IRB Application (Human Research) (Version 1.4)

1.0 General Information		
*Please enter the full title of your study:		
Evaluation of a Website for Online Event Planning and Attendance		
*Please enter a reference or other description for this study. This field is required, but will not be referenced by the staff. It is for your use:		
Capstone 2020 Fall: Bunch * This field allows you to enter an abbreviated version of the Study Title to quickly identify this study.		
2.0 Add Department(s)		
2.1 List departments associated with this study. If the study is funded, please associate it with the correct A&M System member.:		
Primary Dept?	Department Name	
<input type="radio"/>	TAMU - College Of Engineering - Computer Science	
3.0 Assign key study personnel (KSP) access to the project		
3.1 *Please add a Principal Investigator for the study:		
Hammond, Tracy		
3.2 If applicable, please select the Research Staff personnel. Please note if you do not find the personnel needed, please contact the iRIS support line at 845-4969. IRB Note: These personnel will need to sign off on the initial application submission.		
A) Additional Investigators		
B) Research Support Staff		
Ali, Alizain Research Staff Conn, Ryan Research Staff Iyer, Shivani Research Staff Norris, Riley Research Staff Phillips, Veronica Research Staff		

Ray, Samantha Jeane Research Staff Stepanova, Anna Research Staff		
3.3 *Please add a Study Contact:		
Ali, Alizain Conn, Ryan Hammond, Tracy Iyer, Shivani Norris, Riley Phillips, Veronica Ray, Samantha Jeane Stepanova, Anna The Study Contact(s) will receive all important system notifications along with the Principal Investigator. (e.g. The project contact(s) are typically either the Study Coordinator or the Principal Investigator themselves).		
3.4 If applicable, please add a Faculty Advisor:		
3.5 Please select the Designated Department or Supervisor Approval(s)(not required for Animal Use Protocol):		
Schaefer, Scott <i>Department Chair</i> For IRB and IBC, add the name of the individual authorized to approve and sign off on this protocol from your Unit (e.g. the Department Chair or Dean).		
3.6 If applicable, please select the Administrative Assistant(s)(i.e., Designee) Note: These personnel will not need to sign off on the initial application submission. Please do not use for IRB applications.		
4.0 Request to the Human Research Protection Program :: Please Select ONE of the options below. Version 11.14.2019		
4.1 I am conducting Human Subjects Research, and I want to proceed to the regular application.		
<input checked="" type="radio"/> Yes <input type="radio"/> No Which IRB reviews your research? <input checked="" type="radio"/> TAMU IRB <input type="radio"/> Dentistry IRB		
4.2 I am requesting a determination - is my project human subjects research?		

<input type="radio"/> Yes <input checked="" type="radio"/> No	
4.3 I am requesting to defer to an external IRB (that is not IRB TAMU or IRB Dentistry).	
<input type="radio"/> Yes <input checked="" type="radio"/> No	
4.4 I am requesting a "Delayed Onset" of human subjects research determination.	
<input type="radio"/> Yes <input checked="" type="radio"/> No	
4.5 A non-Texas A&M researcher is requesting to use people at Texas A&M as human subjects (staff use only).	
<input type="radio"/> Yes <input checked="" type="radio"/> No	

5.0 Study Personnel Qualifications		
5.1 Study Personnel Qualifications		
Select the Study Personnel from the list created earlier in the application. Then provide the qualifications and role information for that study personnel selection as applicable to this study.		
Study Personnel	Qualifications	Role in Study and Duties delegated by PI
Hammond, Tracy	Expertise in study design	User study recruitment, data analysis, project reporting and write up
Ray, Samantha Jeane	Expertise in study design	User study recruitment, data analysis, project reporting and write up
Stepanova, Anna	IRB expertise	Project management and reporting
Schaefer, Scott	Department Head	None
Ali, Alizain	Student in computer science	User study recruitment, data analysis, project reporting and write up
Conn, Ryan	Student in computer science	User study recruitment, data analysis, project reporting and write up
Iyer, Shivani	Student in computer science	User study recruitment, data analysis, project reporting and write up
Norris, Riley	Student in computer science	User study recruitment, data analysis, project reporting

		and write up
Phillips, Veronica	Student in computer science	User study recruitment, data analysis, project reporting and write up

5.2 External Site or Study Personnel Please list the study personnel on your study who are not associated with Texas A&M. Additional documentation and agreements may be needed for these individuals.

Will an external site review the research?

☐ Yes ☒ No

If yes, what is the name of the external site?

Name	Institution	Telephone	E-mail	Role
No External Personnel has been added to this Study				

Name (from above)	Briefly describe how the person will participate in human subjects research activities	Experience, training, education for these activities	Most recent CITI /alternative training date
No records have been added			

The IRB only needs education or CITI certificate for external personnel if there is no other IRB reviewing the research or if they are a part of the TAMU team.

6.0 Texas A&M University Human Research Protection Program
Project Application Form

Study Introduction

6.1 Application Checklist

The following checklist is a guide for researchers regarding supporting documents that must be considered for and/or uploaded with this application for review and approval before use.

- Informed Consent Document
- Information Sheet
- Waiver of HIPAA Authorization
- Parental Permission Form/Minor Assent Form
- Recruitment materials (i.e. flyers, emails, advertisements, telephone scripts, social media posts)
- Site Authorization Letter (for study conduct and/or access to administrative records)
- Survey/Questionnaire/Data Collection/Abstraction Forms
- Grant Applications (cover to cover), required if funded or grant submitted
- Instructions
- Protocol Investigator's Brochure (for clinical trials only)
- Case report form (for clinical trials only)
- Device Manual (if using an approved or investigational device)
- Thesis/dissertation proposal
- Waiver of parental permission/minor assent form
- Letter of cultural evaluation for international research (link to SOP)
- IRB approvals from collaborating institutions
- Any other documents related to the research
- CVs for all investigators when proposed activities are more than minimal risk
- CITI training for all personnel

6.2 Proprietary Information																				
<p>This protocol includes confidential and/or proprietary information to be protected from disclosure.</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>																				
6.3 Is this research funded?																				
<p>Please identify your funding source, if applicable.</p> <table border="1"> <thead> <tr> <th>View Details</th> <th>Sponsor Name</th> <th>Sponsor Type</th> <th>Funding Through</th> <th>Contract Type:</th> <th>Project Number</th> <th>Award Number</th> </tr> </thead> <tbody> <tr> <td colspan="7">No Sponsor has been added to this Study</td> </tr> </tbody> </table> <p>Please provide the name of the PI on the funding/grant if it is different from this IRB application.</p> <p>Research Not Funded</p> <p>Will funds from Qatar be used to fund this research?</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>* If the response to this question is Yes, then approval by an IRB in Qatar may also be required.</p>							View Details	Sponsor Name	Sponsor Type	Funding Through	Contract Type:	Project Number	Award Number	No Sponsor has been added to this Study						
View Details	Sponsor Name	Sponsor Type	Funding Through	Contract Type:	Project Number	Award Number														
No Sponsor has been added to this Study																				
6.4 Has an entity conducted a scientific peer-review of this research?																				
<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>If Yes, please specify:</p> <p></p>																				
6.5 Fee for Service Information																				
<p>Is a company providing contract services associated with this research in which no company personnel are considered collaborators in the research (will not receive professional recognition or included in presentations or publications about the research)?</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>If yes, please provide the name of the company and the contact name.</p> <p></p> <p>If a contract exists for this study, was the fee for service information included in the primary award information?</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>If yes, please provide a copy of the contract.</p> <table border="1"> <thead> <tr> <th>Version</th> <th>Title</th> <th>Category</th> <th>Expiration Date</th> <th>Document Outcome</th> <th>Checked Out</th> <th>View Document</th> </tr> </thead> <tbody> <tr> <td colspan="7">No Document(s) have been attached to this form.</td> </tr> </tbody> </table>							Version	Title	Category	Expiration Date	Document Outcome	Checked Out	View Document	No Document(s) have been attached to this form.						
Version	Title	Category	Expiration Date	Document Outcome	Checked Out	View Document														
No Document(s) have been attached to this form.																				

6.6 Is this project part of a dissertation, thesis, or record of study?	
<input type="radio"/> Yes <input checked="" type="radio"/> No	
If available, please attach the proposal under Other Study Documents at the conclusion of the application. If not yet available, submit it as an amendment form when available.	
7.0 Study Scope	
7.1 Research Classification	
Select all that apply: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Social/Behavioral <input type="checkbox"/> Biomedical <input type="checkbox"/> Both <input type="checkbox"/> Clinical Trial <input type="checkbox"/> Other, specify <hr/> For Social/Behavioral Research, select all that apply. <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Questionnaire/Survey <input checked="" type="checkbox"/> Observation (investigator observing participants) <input type="checkbox"/> Retrospective study of records existing at time of this application <input type="checkbox"/> Exposure to some type of stimulus or intervention (includes device or substance) <input type="checkbox"/> Participant observation (investigator acts as participant) <input checked="" type="checkbox"/> Interview <input type="checkbox"/> Focus Group <input type="checkbox"/> Other, specify <hr/>	
7.2 Vulnerable Populations	
Identify any vulnerable populations that will be included in the study: <ul style="list-style-type: none"> <input type="checkbox"/> Children (for example, in Texas, under 18) <input type="checkbox"/> Pregnant women, human fetuses, neonates <input type="checkbox"/> Individuals with physical disabilities <input type="checkbox"/> Individuals with cognitive disabilities <input type="checkbox"/> Economically or educationally disadvantaged persons <input type="checkbox"/> Prisoners <input type="checkbox"/> Other (for example, individuals with psychiatric disorders, emotional/social impairments, depression, etc.) <input checked="" type="checkbox"/> No Vulnerable Populations will be included. If Other, then please explain: Describe additional safeguards planned to protect the rights and welfare of vulnerable subjects: If a subject transitions into one of the vulnerable populations (pregnant women or cognitively impaired), will the study procedures place them at any additional risk?	

☐ Yes ☒ No

If a subject becomes incarcerated (including awaiting sentencing, court-mandated treatment, or in prison), contact the IRB immediately.

Please justify the use of vulnerable/special populations.

8.0

Project Overview - Protocol Section Begins Here

8.1 Project Summary

In the space below, provide a summary of the project. Include information about background and rationale for the study including preliminary data, purpose, objectives, specific aims, and research questions. Character limit: 5,000 (applies to first box).

Background and rationale:

In order to meet people and have the opportunity to socialize, some people are disobeying stay-at-home orders, putting them at a high risk to catch Coronavirus. Others are trying to talk to friends or meet new people online, but this can be difficult— many people have difficulty talking to strangers, and even if you can find a group that shares your interests online, such as a Discord server, it can be intimidating to try to meet people in a huge server with thousands of users, or a smaller server that has a close-knit community.

In order to address these problems, we are attempting to make a system that encourages people to meet by starting an event based on their common interests, giving them something to talk about immediately, and learn about the other people attending the event, rather than just talk to a group of people that they already know, and encourages new people to participate.

Preliminary Data:

(none)

Objective: To evaluate a system that attempts to makes creating and attending events online easier.

Purpose: To evaluate our course project.

Research Questions:

(1) Does our website make it easier for users to create and attend events online?

Procedures Involved:

In the space below, Describe and explain the study design. Provide a description of all research procedures being performed and when they are performed.

List each procedure or test and how often the procedure or test will occur for each participant.

Include a procedure schedule or table of events, if applicable - clinical studies.

Describe: All source records that will be used to collect data about subjects. This includes surveys, scripts, recordings and data collection forms; all test articles including dietary supplements, drugs and devices used in the research and the purpose of their use, and their regulatory (FDA) approval status.

Procedures:

1. Users will be recruited by email, word of mouth (predominately over zoom), social network, or flyer.
2. Potential users will contact us once, via email, to set up one user study time. We will give the users 3 days after the original posting to contact us. The scheduled times will take place within 7 days from the date of the original posting.

3. Users will meet with us over zoom (remote/online) during their assigned study time to complete the study. When scheduling their meeting, they will be emailed the consent form to review up until the time of the scheduled meeting.
4. During the scheduled meeting, users will be given as much time as they need to ask questions and complete the consent form.
5. Users will be asked if they consent. If they do not consent, they will be thanked for their time and the meeting will end.
6. Users will be asked if they consent to being recorded and their audio transcribed by Zoom. They will be explained that the audio will be used to verify the transcriptions and that it will be deleted after the transcription is confirmed/corrected within 14 days. The audio will be removed from the video of the screen share in order to keep users anonymous. We will keep the screen share video until December 2020. When the transcript is available, it will be downloaded, and all personal info or names will be removed. The original transcript will then be deleted. We will remove all personal information from our project database to keep users anonymous. This information will be removed as soon as possible within 14 days.
7. If they do not consent, they will be thanked for their time and the meeting will end.
8. They will be given a pre-survey to fill out before they use the system. They will be given as much time as needed during the meeting time to fill out the pre-survey. They will complete this once.
9. Users will be guided to the website. They will be asked to login using their Google account.
10. After completing their login, users will be asked to choose one of three personas: a video game player, a board game player, and a sports enthusiast.
11. Users will then be asked to find an event on the website, using their persona, that they would like to attend virtually. They will not be guided to the event, but asked to find it on their own. They will be asked to find the registration option. They will only register for this event in order to test usability. These events will be mock events and will not actually take place. They will not be attending this event. They will be given as much time as needed to finish this task. They will do this once.
12. Users will be asked to locate the "My Events" page and locate the event they registered for using their persona. They will do this once. They will be given as much time as needed.
13. Users will be asked to create a fake event using their persona. They will do this once. They will be given as much time as needed.
14. They will be asked a few more interview questions orally. Each question will be asked one time. They will be given as much time as needed to complete the interview.
15. The users will then be asked to navigate back to the homepage of the website. They will then be asked to choose from three different real events to attend remotely (not using their chosen persona). All of the events will take place online, using Zoom, and will be hosted by the researchers. All games/tools used for the events are free of charge. The three different events will be:
 1. Among Us Group Play - to take place using Zoom
 2. skribbl.io (Online Pictionary Game) - to take place using Zoom
 3. All Bad Cards (Online Card Game) - to take place using Zoom
16. They will choose one event. They will then be asked to find the event they would most like to attend (remotely). They will be given as much time as needed to find and register for this event.
17. They will attend the event chosen on their own (remotely). This event will take place within 3 days following the meeting period and will be hosted by researchers. This means the event will take place between 8-10 days from the original posting. Users will attend the event remotely (online) from whichever location they see fit.
18. They will be given one post-survey to complete after attending the event. They will be asked to complete this survey immediately after the event. They will be given 1 day to submit the survey.
19. The study is over. The users will be thanked for their time after submitting the post-survey.

- ☐ Drugs
- ☐ Devices
- ☐ Supplements

Significance:

There are existing social applications that attempt to bring new people together, but many of these applications are lacking in a few key areas. Discord and Reddit both try to create online communities, but participating in these communities can often scare away new users, as their servers and subreddits respectively that are dedicated to certain topics often have a huge number of users (from the thousands to over a million), and they both lack the ability to plan events, focusing instead on creating discussion about the topics that each of these servers and subreddits are for; they don't have any tools to organize events, or even see any events that their communities are planning.

Another website, Meetup, tries to bring people together by letting users create events, but lacks the proper tools to host these events online, as its main purpose is for creating in-person events. There's no way to filter the

website to only show online events, and if you want to join an event, you have to specify a location, meaning that when users try to find online events, they have to repeatedly search for events in different cities, which makes it much harder to find online events.

Many people, especially introverts, prefer online events, and especially now that Coronavirus is a huge factor in many people's social activities, these platforms lack the ability to properly find online events to participate in. In addition, some people may want to branch out and find new hobbies or activities to participate in, which our application tries to encourage by letting people add tags (like gaming, art, sports, etc.) to their events and promote discovery, and all of these platforms lack the ability to filter events by general categories, rather than manually searching for a specific interest or activity.

Subjects, enrollment, recruitment, inclusion and exclusion criteria, and informed consent:

Subjects: We are looking to enroll TAMU community members and friends.

Enrollment: We will enroll 200 participants.

Recruitment: We will recruit Texas A&M community members and friends through posted flyers, emails, word of mouth (predominately over Zoom), and social networking.

Inclusion: Any 18+ English speaker who is a member of the Texas A&M community

Exclusion: Participants must be able to speak English. Participants must be 18+.

Will audio recordings be collected?

☒ Yes ☐ No

Will visual images be collected?

☒ Yes ☐ No

If visual images will be collected, are they full, facial identifiable images?

☒ Yes ☐ No

8.2 Locations

List locations or facilities where the research will be conducted (e.g. building name, physical address).

Virtually over Zoom
Remotely - Google Forms (For Survey)
EAB-C (PI's Office), HRBB & EAB-A (CSCE Department)
Zachary (Temporary COVID research space)

Are any of the locations listed above non-Texas A&M facilities?

☐ Yes ☒ No

What is the role of each location?

Studies will be conducted virtually over TAMU Zoom.
Surveys will be conducted virtually using Google Forms.
Data analysis and record storage will occur on TAMU campus (or virtually from home during COVID).

Is the PI of this IRB study application the lead investigator of a multicenter study (i.e. the study is taking place at multiple institutions that are obtaining their own IRB approval and you are coordinating and overseeing the research)?

☐ Yes ☒ No

Has IRB approval been sought at another institution?

☐ Yes ☒ No

Please submit the Site Authorization letter(s) with this application as a study document or indicate when site authorization will be obtained. Guidance is available at <http://rcb.tamu.edu/humansubjects/resources/site-authorization-letter>

8.3 Other Committee Approvals

Select all that apply.

- ☒ None
☐ Animal Use
☐ Biohazards
☐ Chemical
☐ Radiation
☐ Other

If any committee approvals apply, please provide the permit number and approval date.

9.0

Study Population

9.1 Number of Participants

Approximately how many subjects do you plan to enroll?

200

Provide the rationale for the number of subjects requested (for example, power analysis, sponsor requirements, etc.).

We need enough participants to gain an understanding of the effectiveness of this system and to make sure the sample is balanced and better matches the population as a whole with respect to participant demographics.

Will human subjects be used from the Qatar population?

☐ Yes ☒ No

*** If Yes, then approval by an IRB in Qatar may also be required.**

Will human subjects be used from another international population?

☐ Yes ☒ No

***If Yes, then approval by an international review board or government may also be required.**

Will human subjects be used from a Native American population?

☐ Yes ☒ No

***If Yes, then approval by a tribal IRB(s) may also be required.**

If Yes for research in Qatar, in another country, or with Native Americans, provide justification for that research being conducted in that particular community.

9.2 Provide the age groups being enrolled into this study (Note the consent documents required for each

age group listed in parentheses):	
<input type="checkbox"/> 0-6 (parental consent only, Pediatric Assessment required for Clinical Trials) <input type="checkbox"/> 7-11 (child's assent plus parental permission, Pediatric Assessment required for Clinical Trials) <input type="checkbox"/> 12-17 (consent plus parental permission, Pediatric Assessment required for Clinical Trials) <input checked="" type="checkbox"/> 18+ (consent only) Enter the specific age range for study population (if overlap or specific within a category): <hr/>	
9.3 Indicate the gender of participants being enrolled into this study:	
<input type="checkbox"/> Male <input type="checkbox"/> Female <input checked="" type="checkbox"/> Both male and female	
9.4 Inclusion/Exclusion Criteria	
What are the inclusion and exclusion criteria for study participation? 18+ and English speaker Do the exclusion criteria exclude specific populations or individuals based on gender, culture, language, economics, race, or ethnicity? <input checked="" type="radio"/> Yes <input type="radio"/> No If Yes, then justify each exclusion: They must speak English so that they understand our consent form.	
9.5 Describe the setting where the informed consent process will take place (e.g. classroom, clinic, laboratory, office, park, personal computer, etc.).	
If a waiver of documentation of informed consent is requested, then describe how participants will review the information sheet. It will take place on their computer. The consent form will be shown before they start using the software on the first page of the software. They will be given as much time as they need to review the consent form. They will be asked to click "yes, I agree" after reviewing the consent form. If they do not agree, they will be thanked for their time and the user study will complete.	
9.6 Experience of Subjects	
Describe the experience of subjects while participating in this research. (Please describe what the participant will experience from the time of learning of the study through completion.) User Experience: <ol style="list-style-type: none"> 1. Users will learn of our study by email, word of mouth (predominately over zoom), social network, or flyer. 2. Potential users will contact us once, via email, to set up one user study time. We will give the users 3 days after the original posting to contact us. The scheduled times will take place within 7 days from the date of the original posting. 3. Users will meet with us over zoom during their assigned study time to complete the study. When scheduling their meeting, they will be emailed the consent form to review up until the time of the scheduled meeting. 	

4. During the scheduled meeting, users will be given as much time as they need to ask questions and complete the consent form.
5. Users will be asked if they consent. If they do not consent, they will be thanked for their time and the meeting will end.
6. Users will be asked if they consent to being recorded and their audio transcribed by Zoom. They will be explained that the audio will be used to verify the transcriptions and that it will be deleted after the transcription is confirmed/corrected within 14 days. The audio will be removed from the video of the screen share in order to keep users anonymous. We will keep the screen share video until December 2020. When the transcript is available, it will be downloaded, and all personal info or names will be removed. The original transcript will then be deleted.
7. If they do not consent, they will be thanked for their time and the meeting will end.
8. They will be given a pre-survey to fill out before they use the system. They will be given as much time as needed during the meeting time to fill out the pre-survey. They will complete this once.
9. They will first choose a persona and attempt to find an event using this persona. They will be given as much time as needed to complete this task.
10. They will be asked to locate the event they registered for on their "My Events" page.
11. They will be asked to create a fake event using their chosen persona.
12. They will be asked a few more interview questions orally. Each question will be asked one time. They will be given as much time as needed to complete the interview.
13. They will then choose from three different real events to attend. They will choose one event. They will be given as much time as needed to find and register for this event.
14. They will attend the event chosen on their own. This event will take place within 3 days following the meeting period. This means the event will take place between 8-10 days from the original posting.
15. They will be given one post-survey to complete after attending the event. They will be asked to complete this survey immediately after the event. They will be given 1 day to submit the survey.
16. The study is over. The users will be thanked for their time after submitting the post-survey.

How long will the participants be engaged in the research (length of time, e.g., 15 minutes, 45 minutes on Day 1, 60 minutes on Day 2, etc.)?

About 2 hours total over the course of a week. About an hour for the user study and an hour for the user to attend the event and finish the post-survey.

10.0 Privacy and Confidentiality

10.1 How will the identities of subjects be protected in all research records? The information collected /analyzed is:

Note: Data that are coded, where the key to the code is accessible to researchers, are considered confidential information and subject to privacy regulations.

- ☐ Anonymous: The identity of the participant cannot readily be determined by the investigator AND the identity of the participant is not connected to information gathered.
- ☒ Confidential: Research participants can be identified; however, information gathered will be protected.
- ☐ Neither: Research participants can be identified, and information gathered may be connected to the participant.

Summarize procedures to protect the confidentiality and anonymity of participants (e.g., replies coded, etc.).

The video will be used to verify the audio transcriptions and that the video will be deleted after the transcription is confirmed/corrected within 14 days. When the transcript is available, it will be downloaded, and all personal info or names will be removed. The original transcript will then be deleted. All other data from the user study will also be immediately anonymized and coded with a number. All data will be kept in a private Google Drive to ensure identifiable information is not shared with anyone other than the researchers before it is anonymized.

What are the plans for retention and/or destruction of linkages between study data and personal identifying information? (Specify when and how personal identifying information will be destroyed.)

The linkages will be deleted within 14 days and transcripts will be anonymized as soon as possible using the process described in the prior question. All data will be kept in a private Google Drive to ensure identifiable information is not shared with anyone other than the researchers before it is anonymized.

If these linkages will not be destroyed, explain how you will maintain confidentiality of the personally identifying information.

N/A

If personally identifying information will not be kept confidential, then justify and explain the informed consent process for sharing this information.

N/A

Will a Certificate of Confidentiality (through DHHS or another Federal agency) be utilized?
<https://humansubjects.nih.gov/coc/index>

☐ Yes ☒ No

11.0 Potentially Sensitive Subject Matter and Procedures

11.1 Will this type of information be collected?

☐ Yes ☒ No

11.2 Select all that describe the information.

- ☒ No sensitive matters
- ☐ Abortion
- ☐ Alcohol
- ☐ Body composition
- ☐ Criminal activity
- ☐ Depression
- ☐ HIV/AIDS
- ☐ Learning disability
- ☐ List of current medications
- ☐ Medical/dental problems
- ☐ Medical history
- ☐ Potential child abuse/neglect
- ☐ Psychology/psychiatry
- ☐ Sexual activity
- ☐ Suicide
- ☐ Unethical behavior
- ☐ Other

If other, please specify:

If Medical History or Mental Health History information will be collected, please describe:

11.3 Deception

<p>Will deception be used as part of the study?</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>If Yes, please describe the deception.</p> <p>Please describe the debriefing procedures to be used.</p> <p>Provide justification for the deception.</p>	
12.0 Risks and Benefits	
<p>12.1 Regulatory definition of minimal risk is that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests (45 CFR 46.102(h)(1)).</p>	
<p>Identify the types of risk associated with participation in the study:</p> <p><input type="checkbox"/> Physical</p> <p><input type="checkbox"/> Privacy</p> <p><input checked="" type="checkbox"/> Confidentiality</p> <p><input type="checkbox"/> Psychological/emotional</p> <p><input type="checkbox"/> Social</p> <p><input type="checkbox"/> Legal</p> <p><input type="checkbox"/> Other</p> <p>If Other, please describe the risks:</p> <hr/> <p>Describe the potential risks or discomforts to participants. Include justification of the known risks, which were selected above.</p> <p>The video will be used to verify the audio transcriptions and that the video will be deleted after the transcription is confirmed/corrected within 14 days. When the transcript is available, it will be downloaded, and all personal info or names will be removed. The original transcript will then be deleted. We will remove all personal information from our project database to keep users anonymous. This information will be removed as soon as possible within 14 days.</p> <p>Describe the approaches you will take to minimize these risks and/or to minimize their impact.</p> <p>The video will be used to verify the audio transcriptions and that the video will be deleted after the transcription is confirmed/corrected within 14 days. When the transcript is available (usually within the hour), it will be downloaded, and all personal info or names will be removed. The original transcript will then be deleted. We will remove all personal information from our project database to keep users anonymous. This information will be removed as soon as possible within 14 days.</p> <p>What alternatives are available to subjects outside the research (i.e., what is the standard of care, is the research intervention available without participating)?</p> <p>Alternative is not to participate in the research.</p>	
<p>12.2 What are the potential benefits of this study to individual participants? (This does not include payments, compensation, or incentives.)</p>	
<p>There are no benefits.</p>	
<p>12.3 What are the potential benefits of this study to the population or society?</p>	

We will better understand how to make a system that can help people find others who share their interests and communicate.

13.0

Recordings

13.1 Recordings

If Yes, then select all that apply:

- ☐ Photographs, images, or likeness
- ☒ Video recording
- ☒ Audio recording

Are these recordings mandatory for participants?

☒ Yes ☐ No

Is the use of recordings detailed in the informed consent process?

☒ Yes ☐ No

Will the recordings be retained?

☒ Yes ☐ No

If Yes, how long will records be retained before they are destroyed/destroyed?

The audio will be retained until the audio transcriptions have been confirmed/corrected within 14 days. The audio will then be removed from the screen share video and we will keep the video until December 2020.

Will recordings be transcribed?

☒ Yes ☐ No

If Yes, who will transcribe the recordings?

If the person transcribing the recordings is not a member of the study personnel, please identify the transcriptionist. A Non-Disclosure Agreement (NDA) may be needed for the transcriptionist(s).

We will use the automated zoom transcription feature. Any team member may need to use the recording to correct any automated text transcription errors.

14.0

Personally Identifiable Information

14.1 Indicate which of the following personally identifiable information (PII) will be accessed or recorded in association with this study:

- ☐ None
- ☒ Name
- ☐ Web addresses (URLs)
- ☒ Full Face Photographic Image
- ☐ Internet IP Address
- ☐ Health Plan Beneficiary Number
- ☐ Certificate/ License Number
- ☒ Any Other Unique Identifier or Combination
- ☐ Geographic Information (including city and ZIP)
- ☐ Vehicle Identification Number and Serial Numbers Including License Plate Number
- ☒ Telephone Number

☒ Email address
☐ Fax number
☐ Social Security Number
☐ Medical Record Number
☐ Account Number
☐ Medical Device Identifiers
☐ Biometric Identifiers
☐ Dates directly related to an individual (including birth, death, admission, discharge, date of procedure)
☐ Educational Records

Will any PII in your possession be coded?

☐ Yes ☒ No

Will you have the code in your possession?

☐ Yes ☒ No

Is this personally identifiable information considered Protected Health Information (PHI)? (PHI is any of the 18 identifiers listed above collected by or received by a covered entity, which includes a healthcare provider, healthcare clearing house, or as defined in the University SAP 16.99.99.M0.01.)

☐ Yes ☒ No

****If Yes, additional requirements may be involved such as HIPAA authorization, Waiver of Authorization, or Data Use Agreement, or other agreements.***

14.2 Explain why you need to obtain personally identifiable information (list all of the data fields to be collected):

We will have the name and email to set up the interview time.
 The face frontal image is available through the zoom video.
 All of those things will be deleted and unlinked from the data as soon as the user study is over and the transcript is available to be downloaded, anonymized, and deleted.

14.3 Does this study involve use of Protected Health Information (PHI) being received from a Covered Entity (e.g. healthcare provider, healthcare clearing house, health plan)?

☐ Yes ☒ No

Will the provider be a collaborator on this study who will maintain the code to the PHI in their possession?

☐ Yes ☒ No

If yes, identify the covered entity and provide the data use agreement or business associate agreement.

Version	Title	Category	Expiration Date	Document Outcome	Checked Out	View Document
No Document(s) have been attached to this form.						

Covered Entity:

Does this study involve collection of PHI from participants or receipt of PHI from a covered entity?

☐ Yes ☒ No

Does this study involve distribution of PHI to a Covered Entity (e.g. healthcare provider, healthcare clearing house, health plan)?

☐ Yes ☒ No

If Yes to any of these three previous questions, PHI authorization or a waiver of PHI authorization is required. Is a waiver of PHI authorization being requested? For more information, see the additional information online: <http://rcb.tamu.edu/humansubjects/resources/consentinfo>

☐ Yes ☐ No

Please attach the HIPAA Authorization as needed to the application.

Version	Title	Category	Expiration Date	Document Outcome	Checked Out	View Document
No Document(s) have been attached to this form.						

14.4 Will the PHI used in this study be stored with encryption?

☐ Yes ☐ No

How is PHI transmitted electronically being protected?

How is PHI data protected?

Who has access to PHI?

15.0 Retrospective Details (Please note: This refers to the analysis of data, documents, records, or specimens that were existing as of the date of the IRB application.)

15.1 Will existing data or documents be used (e.g., patient records/charts, samples/specimens, public records, surveys, evaluation tools, etc.)?
NOTE: If you answer NO to this question, please skip the remaining questions in this section.

☐ Yes ☒ No

If Yes, then:
Describe the data or documents that will be used.

What is the date range of the original data collection?

How will the existing data be obtained? Additional information may be required to establish authority to use the data previously collected.

15.2 Will your research be limited to only existing data or specimens? NOTE: If data/specimens will be collected after submission of this application, then the answer here is "No". If you answered NO to this question and the main question above, please skip the remaining questions in this section.

☐ Yes ☐ No

15.3 Will existing specimens be used (e.g., human blood, tissue, saliva, etc.)?

☐ Yes ☐ No

If Yes, then describe the specimens that will be used and how they will be obtained.

Indicate the number of specimens.

<p>How will the specimens be obtained?</p> <hr/> <p>Provide the documentation from the holder of the samples that gives you permission to use the samples for research purposes. If the samples were collected for research purposes, provide a copy of the approved informed consent document used to obtain the samples.</p>	
15.4 Retrospective Details – Publicly Available	
<p>Is the source of the data for your research accessible by the general public?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p> <p>Provide the link if applicable.</p> <hr/>	
15.5 Retrospective Details – Identity	
<p>Will it be possible to determine a subject's identity directly or indirectly through a link (e.g., Medical Record Number (MRN), participant code, IP address, email)?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p>	
15.6 Retrospective Details – Waiver of Informed Consent	
<p>Is it impractical to obtain informed consent from the subjects?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p> <p>If Yes, then please complete the Waiver of Informed Consent information in the next section.</p>	
15.7 Retrospective Details – Waiver of Document of Informed Consent	
<p>Is it possible to obtain informed consent, AND the only link between the data and the human subject would be the signed informed consent document?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p>	
16.0 Costs and Compensation	
16.1 What are the costs to participants (monetary, time, expense, etc.)? Identify the costs and specify the amount.	
<p>Only time. About 2 hours total over the course of a week. About an hour for the user study and an hour for the user to attend the event and finish the post-survey.</p>	
16.2 Will participants receive any compensation for participation in the study? Note: For payments to participants, please see University SAP Payment of Survey and Research Participants 21.01.99.M0.03. (http://rules-saps.tamu.edu/PDFs/21.01.99.M0.03.pdf)	
<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>If Yes, then identify the amount of compensation, method of payment, payment schedule, and justification. If more than a single session with the participant, then the schedule should include incremental payments.</p>	

16.3 In case of injury, explain who will pay for the treatment. (If not applicable, then note "N/A.") Is there a contract in place - is subject injury covered by an outside entity?	
<input type="text" value="N/A"/>	
16.4 What extra costs will be incurred by third-party payers because of subjects' participation?	
<input type="text" value="N/A"/>	
17.0 Recruitment	
17.1 How will potential subjects be identified? (How do you know who to contact to participate in the study?)	
<p>To identify potential subject, we will use TAMU bulk mail, we will email the Computer Science and Engineering department undergraduate student list and the list of students in the course CSCE 436 (Human Computer Interaction), we will verbally recruit fellow students and friends using Zoom and other virtual meeting platforms, and we will use a short and long recruitment script to recruit on forms of social media like Facebook and Twitter.</p>	
17.2 Bulkmail	
<p>Will Texas A&M University bulkmail be used for recruitment?</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>Please note that bulkmail recruitment applies to main campus, Health Science Center (HSC), Law School, and Galveston only. Recruitment to the Qatar campus may be require approval by an IRB in Qatar.</i></p>	
17.3 How will potential subjects be recruited? Select all that apply:	
<p> <input type="checkbox"/> Direct contact in a medical setting <input type="checkbox"/> Direct contact in a non-medical setting <input type="checkbox"/> Newspaper ad <input type="checkbox"/> Television <input type="checkbox"/> Radio <input checked="" type="checkbox"/> Website <input checked="" type="checkbox"/> Social/professional networking site <input checked="" type="checkbox"/> Posted notice(s) <input type="checkbox"/> Letter <input checked="" type="checkbox"/> Telephone solicitation <input checked="" type="checkbox"/> Email <input type="checkbox"/> Recruiting Pool (See next question) <input checked="" type="checkbox"/> Other (specify): <input type="text" value="Zoom Calls (such as during remote classes)"/> </p> <p>If you selected Recruitment Pools option above, please identify the groups below.</p> <p> <input type="checkbox"/> Economics <input type="checkbox"/> Marketing </p>	

<input type="checkbox"/> Motor Behavior <input type="checkbox"/> Motor Neuroscience <input type="checkbox"/> Psychology <input type="checkbox"/> Sociology <input type="checkbox"/> TTI * Skip to the next section if using a Recruitment Pool.	
17.4 How will initial contact be made with potential participants?	
see 17.1	
17.5 How will the researchers protect subject privacy <u>during the recruitment process</u>?	
The recruitment will only advertise the option. The participants will be encouraged to email us with interest.	
17.6 Who will do the recruiting?	
The persons listed in section 5.1	
17.7 Will recruiting be conducted off Texas A&M University property?	
<input type="radio"/> Yes <input checked="" type="radio"/> No If Yes, describe (Site Authorization(s) may be required.)	
17.8 Will screening or recruiting be from or through the patient base of a healthcare provider?	
<input type="radio"/> Yes <input checked="" type="radio"/> No	
17.9 Do you have any relationship other than as an investigator with participants (e.g. doctor-patient, teacher-student, counselor-student, family member, etc.)?	
<input type="radio"/> Yes <input checked="" type="radio"/> No If Yes, then specify the relationship. Describe how you will avoid any type of coercion.	
17.10 If the subject is a student who is participating in the research for course credit, then how will you ensure that the subject was not coerced into participating?	
N/A	
17.11 If this study meets a requirement for course research credit, then how is this study suited to the course for which research credit is required?	
N/A	

17.12 What alternatives to the participation in the research without negative consequences will you allow (e.g., not to participate, alternative assignment)?	
They can choose not to participate.	
17.13 Will there be any penalties or other disadvantages for those declining to participate?	
<input type="radio"/> Yes <input checked="" type="radio"/> No	
17.14 Will any pre-screening surveys or questions be used?	
<input type="radio"/> Yes <input checked="" type="radio"/> No	
If Yes, then please describe and include in Other Study Documents.	
18.0 Data Management	
18.1 General Information	
<p>STANDARD ADMINISTRATIVE PROCEDURE</p> <p>15.99.03.M1.03 The Responsible Stewardship of Research Data</p> <p>http://rules-saps.tamu.edu/PDFs/15.99.03.M1.03.pdf</p> <p>Do you agree to adhere to the SAP with your data?</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>Where will the data be stored? Indicate building and room number on TAMU property.</p> <p>Online in a private TAMU shared google drive and in the PI's Office EAB-C-103</p> <p>How long will the data be stored? (Note: This time period should be a minimum of 3 years post completion of the research and perhaps longer, depending on sponsor requirements.)</p> <p>at least three years after the completion of the research.</p> <p>If you are storing or transmitting collected data, is the storage and transmission of the data encrypted?</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>Please note that PHI must be stored and transmitted with encryption.</p> <p>Who will have access to the data?</p> <p>only researchers listed on this IRB</p>	
18.2 Data Safety Monitoring Plan	
<input type="radio"/> Yes <input checked="" type="radio"/> No	

<p>If so, then: How is it managed?</p> <p>With what frequency is data reviewed for this project? How often does the DSMB meet? What is the frequency of reports from the DSMB? Describe any planned interim analysis. Provide names, affiliations, and qualifications of members.</p>	
19.0 Informed Consent	
19.1 Select all that apply and attach to the application:	
<p>For templates and guidance regarding informed consent, see http://rcb.tamu.edu/humansubjects/resources/consentinfo</p> <p> <input type="checkbox"/> Informed Consent Document (signed consent, typically needed in Texas for research involving adults) <input type="checkbox"/> Parent Informed Consent Document <input type="checkbox"/> Parent Permission Form <input type="checkbox"/> Assent Form (typically needed in Texas for research involving children under 18) <input checked="" type="checkbox"/> Recruitment Script (verbal) <input checked="" type="checkbox"/> Recruitment Email <input checked="" type="checkbox"/> Information Sheet (also select Waiver of Documentation of Informed Consent) <input type="checkbox"/> Waiver of Informed Consent <input checked="" type="checkbox"/> Waiver of Documentation of Informed Consent <input type="checkbox"/> Other </p> <p>If other, please specify:</p> <hr style="border: 0; border-top: 1px solid #ccc; margin-top: 5px;"/>	
19.2 Please provide the readability statistics for each informed consent document in terms of the Flesch-Kincaid Grade Level. In general, informed consent document for adults should be on an 8th grade level.	
<p>http://rcb.tamu.edu/humansubjects/resources/tipsconsentforms</p> <p>8.2</p>	
19.3 Please describe the informed consent process. Include how participants will be adequately informed of what they will be asked to do in the study as well as how they will be protected. Include how the forms selected above will be used in the process including that the participants will have sufficient time to review any information provided to them.	
<p>If a waiver of documentation of informed consent is requested, then the information sheet use must be described here.</p> <p>The information sheet will be shown before the study begins. There is no time limit for if the participant chooses to continue or not. One of the researchers will be present to answer any immediate questions the participant has.</p>	
19.4 Where will the informed consent process take place (e.g. building name, physical address)?	
<p>Where will the informed consent documents be physically stored?</p> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;">EAB-C-103</div>	

Who will have access to the Informed Consent documents?	only researchers on this IRB
19.5 For studies involving research on children, will participants who reach age of majority be consented?	
<input type="radio"/> Yes <input checked="" type="radio"/> No	
19.6 Have the PI, Co-I(s), and any persons interacting with study subjects completed CITI training?	
<input checked="" type="radio"/> Yes <input type="radio"/> No If No is selected, have the PI, Co-I(s), and any persons interacting with study subjects completed alternative human subjects training? If so, please provide a description and copy of the alternative training. 	
19.7 Please indicate the research personnel who will be obtaining informed consent from participants. (Use N/A to indicate that informed consent will not be collected.)	
<div style="border: 1px solid black; padding: 2px;">only persons listed in 5.1</div>	
19.8 What project-specific training/experience have individuals obtaining informed consent received (e.g. verbal instruction by the PI, practice with the PI)?	
Training by the PI	
19.9 Will the subject have the opportunity to review the informed consent document or Information Sheet, ask questions, and understand the details of the study prior to participation?	
<input checked="" type="radio"/> Yes <input type="radio"/> No If Yes, then how much time will be provided? As much time as needed.	
19.10 How will cultural issues, including language, be addressed?	
Only participants who speak English will be recruited	
19.11 Will non-English speaking people be approached to participate in this study?	
<input type="radio"/> Yes <input checked="" type="radio"/> No Will a translation be available for non-English speaking subjects? <input type="checkbox"/> Verbally (provide script) <input type="checkbox"/> In writing (provide documents) <input type="checkbox"/> Both <input type="checkbox"/> Neither	
19.12 If the study involves minors, then describe the informed consent process of parental permission	

and how the assent of the minor will be sought. Attach the documents to the application.	
20.0 Waiver of Documentation of Informed Consent	
20.1 Provide protocol-specific reasons and justification on how <i>at least one</i> of the following criteria are met:	
<p>The only record linking the participant and the research would be the consent document, and the principal risk would be potential harm resulting from a breach of confidentiality. Each participant will be asked whether the participant wants documentation linking the participant with the research, and the participant's wishes will govern.</p> <p>Protocol-specific explanation:</p> <p>After receiving the video, the audio transcription will be available within the hour. Once we receive the transcript, we will use the video to confirm/correct the transcription and then delete the video within 14 days. We will then anonymize the transcript to remove any personal information and delete the original immediately after. Then, the only link that they would have participated would be the consent form.</p> <p>That the research presents no more than minimal risk of harm to participants and involves no procedures for which written informed consent is normally required outside of the research context. In cases in which the documentation requirement is waived, the IRB may require the investigator to provide participants with a written statement regarding the research.</p> <p>Protocol-specific explanation:</p>	

C.2 Consent Documents

(5/30/2017)

TEXAS A&M UNIVERSITY HUMAN RESEARCH PROTECTION PROGRAM
INFORMED CONSENT DOCUMENT

Title of Research Study: Evaluation of Website for Online Event Planning and Attendance

Investigator: Dr. Tracy Hammond

Funded/Supported By: This research is funded/supported by Texas A&M University.

Why are you being invited to take part in a research study?

You are being asked to participate because you are an English speaker who is 18 or older. You also have an interest in video games and/or board games.

What should you know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at hammond@tamu.edu or 979-324-6022.

This research has been reviewed and approved by the Texas A&M Institutional Review Board (IRB). You may talk to them at 1-979-458-4067, toll free at 1-855-795-8636, or by email at irb@tamu.edu, if

- You cannot reach the research team.
- Your questions, concerns, or complaints are not being answered by the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

HRP-5xx (5/30/2017)

INFORMED CONSENT DOCUMENT***Why is this research being done?***

Especially as social activities shift online, it is increasingly difficult to maintain social connections and meet new people. There is a lack of notable applications that assist users in finding online events so that users can maintain social connections while avoiding in-person contact. The purpose of this research is to test the applicability and effectiveness of a website that will help users in finding online events.

How long will the research last?

The initial research session, including the pre-survey, website navigation, and interview will take less than two hours. The event you will attend remotely will take place within 3 days of your research session and will last less than one hour. After the event, you will be given 24 hours to submit your post-event survey.

How many people will be studied?

We expect to enroll around 200 people in this research study remotely.

What happens if I say “Yes, I want to be in this research”?

If you accept this study, you will be asked to fill out a pre-survey asking general questions about your social activity. After this, we will begin recording the study. We will record audio and video. You will be asked to navigate to our website. Then, you will be asked to test a website based on one of three personas: a video game player, a board game player, and a sports enthusiast. You will choose this persona yourself. After this, you will follow given instructions to test the application while sharing your screen with one of the researchers. The audio and video from this interaction will be recorded and anonymized following the study within 14 days. Immediately following the website navigation test (during the same session), you will be given a post-interview by one of the researchers and asked general questions about the usability of the application. On your own time (within 3 days of your recorded session), you will partake in an online event that you had registered for during the website test. In this event, you will interact with other users of the application. Afterward, you will fill out a post-survey on your experience during the event you participated in.

Your information will be kept confidential to the extent allowed by law.

What happens if I do not want to be in this research?

You can leave the research at any time and it will not be held against you.

What happens if I say “Yes”, but I change my mind later?

You can leave the research at any time and it will not be held against you.

If you decide to leave the research, contact the investigator so that the investigator can formally note that you have decided to withdraw out of the study. The data collected from you until the point of withdrawal will not be used in the study.

Document Version: 2

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IRB NUMBER: IRB2020-1120
IRB APPROVAL DATE: 11/17/2020

HRP-5xx (5/30/2017)

INFORMED CONSENT DOCUMENT***What happens to the information collected for the research?***

Efforts will be made to limit the use and disclosure of your personal information, including research study and other records, to people who have a need to review this information. We cannot promise complete privacy. Organizations that may inspect and copy your information include the TAMU HRPP/IRB and other representatives of this institution.

If you elect to be recorded, we will create anonymous transcripts of these recordings and delete the actual recordings as soon as we are able to.

What else do I need to know?

You will be asked to verbally consent to being in this study, as well as being audio and video recorded prior to the start of the pre-survey, website navigation, and interview. When our research is complete, we will send you a copy of our results over email.



C.3 Supplementary Documents: Pre-Survey

Social Interaction Survey

9/20/20, 1:03 PM

Social Interaction Survey

* Required

To what extent do you agree with the following statements?

1. I find it difficult to meet new people. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

2. I am more introverted rather than extroverted. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

3. I feel that quarantine has made it harder to meet new people. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

Social Interaction Survey

9/20/20, 1:03 PM

4. I feel that quarantine has made it harder to connect with current friends and family. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

5. I feel like I lack meaningful relationships with the people around me. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

6. I find it difficult to find people interested in my hobbies. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

7. I feel more comfortable meeting people online. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

Please answer the following short answer questions.

8. If you moved to a new place, how would you meet new people (aside from the workplace)? *

9. What types of social activities do you participate in online, or would you be interested in doing online? *

10. What are your thoughts on online vs. in person relationships? *

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C.4 Supplementary Documents: Post-Survey

Bunch Feedback Survey

9/20/20, 1:02 PM

Bunch Feedback Survey

* Required

Event Registration and Participation

To what extent do you agree with the following statements?

1. I found it easy to register for an event. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

2. I found it easy to attend events that I registered for. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

3. I received sufficient notification about the event I planned to attend. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

Bunch Feedback Survey

9/20/20, 1:02 PM

4. I felt involved in the event I attended. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

5. I enjoyed the event I attended. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

Overall Experience

To what extent do you agree with the following statements?

6. I enjoyed the design of this application. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

Bunch Feedback Survey

9/20/20, 1:02 PM

7. I believe this website is a useful tool for finding groups of people to interact with. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

8. I can see myself using this application in the future to create or attend events. *

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

9. Is there anything else about your experience you would like to share? If so, please include below.

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Google Forms

https://docs.google.com/forms/u/0/d/1C_Dj32w18x-cF6TJsTYRVGSqvNcf3d3kWAHinvDSoo8/printform



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C.5 Supplementary Documents: Interview

Bunch: User Interview Questions

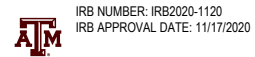
1. When using the website, did you run into any major problems that prevented you from easily browsing and registering for events?
2. Are there any smaller issues you encountered that made using the website difficult?
 - a. If users have any comments for these two questions, follow up and try to find the root cause of their issues and what could be done to improve them.
3. What parts of the website were most confusing, or difficult to use, for you?
 - a. Ask why.
4. What features did you find the most useful?
5. Are there any features we could add that would have improved your experience?
6. Do you use any websites or apps that have a similar functionality?
 - a. How does ours compare to those websites/apps?
 - b. What do you like the most about them, and do you think that our website is missing anything that you like about them?
7. Is there anything else you'd like to mention to us that could improve your experience?

C.6 Supplementary Documents: Recruitment Script

Bunch Verbal Recruitment Script

Howdy! Would you like to participate in a study evaluating the effectiveness of a website that allows you to create and find online events so that you can engage in new or existing hobbies and social groups?

If so, please contact us at bunchsocialapp@gmail.com to set up a time to participate.

**C.7 Supplementary Documents: Recruitment Email**

EMAIL TITLE: Participants Needed: Website for Finding and Creating Online Events

EMAIL MESSAGE:

**Are you interested in trying new things?
Do you want to meet people online that share your interests?**

Howdy,

Are you interested in trying new things? Has COVID impacted your social life and you'd like to meet new people with similar interests? You are invited to participate in a study evaluating the effectiveness of a new web application that lets you organize and create online events so you can find and engage in new or existing hobbies while at home.

This study involves the use of a website to evaluate the usability and effectiveness of creating and joining online events. You will evaluate how the application helps you in finding new people who share common interests. **Participation is voluntary and no compensation is available.**

ELIGIBILITY CRITERIA:

- Be fluent in English
- Age range 18 or older

WHAT WILL YOU DO:

- Go to XYZ.com
- Act as a video game player, board game player, or sports enthusiast and find events that interest you.
- Look for a real, remote (online) event using our website and attend the event.

WHEN & WHERE:

- Contact us at bunchsocialapp@gmail.com to set up a study time.
- All events and meetings will happen remotely.

HOW LONG:

- The initial session will take less than two hours, including pre-survey, website testing, and interview.
- The event you will attend will take less than an hour. Afterward, you will receive a post-survey that must be completed within 24 hours.

HOW TO PARTICIPATE:

- Please contact us at bunchsocialapp@gmail.com to set up an online meeting.



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If you would like more information: contact us at bunchsocialapp@gmail.com.

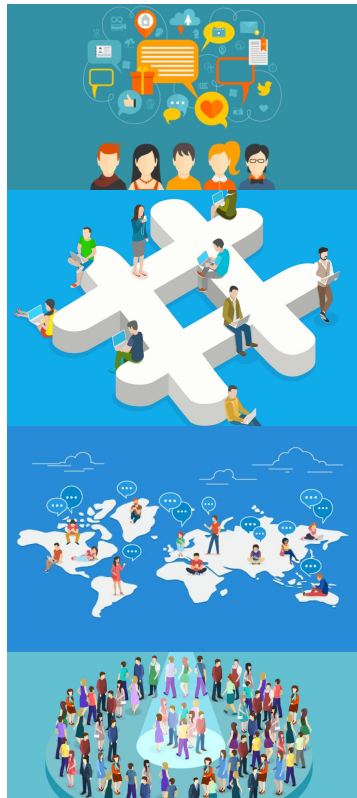
PI: Tracy Hammond, PhD
hammond@tamu.edu
Computer Science and Engineering
Texas A&M University
Office: EABC 103

IRB-Number: XXXXXXX
IRB Approval Date: XX/XX/XXXX



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C.8 Supplementary Documents: Recruitment Flyer



Are you interested in trying new things?

Are you interested in trying new things? Has COVID impacted your social life and you'd like to meet new people with similar interests? You are invited to participate in a study evaluating the effectiveness of a new web application that lets you organize and create online events so you can find and play video games or virtual board games with other people while at home.

This study involves the use of a website to evaluate the usability and effectiveness of creating and joining online events. You will evaluate how the application helps you in finding new people who share common interests. **Participation is voluntary and no compensation is available.**

Eligibility Criteria:

- Be fluent in English
- Age range 18 or older

What You Will Do:

- Go to XYZ.com
- Act as a video game player, board game player, or sports enthusiast and find events that interest you.
- Look for a real, remote (online) event using our website and attend the event.

When & Where:

- Contact us at bunchsocialapp@gmail.com to set up a study time.
- All events and meetings will happen remotely.

How Long:

- The initial session will take less than two hours, including pre-survey, website testing, and interview.
- The event you will attend will take less than an hour. Afterward, you will receive a post-survey that must be completed within 24 hours.

How to Participate:

- Please contact us at bunchsocialapp@gmail.com to set up an online meeting.

If you would like more information: contact us at bunchsocialapp@gmail.com.

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Computer Science and Engineering

Office: EABC 103

IRB-Number: XXXXXXXX
IRB / IRB NUMBER: IRB2020-1120
IRB / IRB NUMBER: XXXXXXXX
IRB / IRB APPROVAL DATE: 11/17/2020



C.9 Supplementary Documents: Social Networking Recruitment Script

Long Social Networking Script

Howdy,

Are you interested in trying new things? Has COVID impacted your social life and you'd like to meet new people with similar interests? You are invited to participate in a study evaluating the effectiveness of a new web application that lets you organize and create online events so you can find and play video games or virtual board games with other people while at home.

This study involves the use of a website to evaluate the usability and effectiveness of creating and joining online events. You will evaluate how the application helps you in finding new people who share common interests. **Participation is voluntary and no compensation is available.**

You must be 18 or over and fluent in English to participate. Total time commitment is less than 4 hours over 5 days.

If you're interested, contact us at bunchsocialapp@gmail.com.

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IRB Approval Date: XX/XX/XXXX



IRB NUMBER: IRB2020-1120
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Short Social Networking Script

Would you like to participate in a study on the effectiveness of a website in finding social groups for playing video/board games? We are looking for video/board game players to test our website. You must be fluent in English and 18 or older to participate. Total time commitment is less than 4 hours over the course of 5 days. Contact us at bunchsocialapp@gmail.com for more

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