CPSC 481 Group 3.1 Final Report

Executive Summary

Barkipedia is the only application any and every dog user will ever need. The design problem we addressed was the difficulty to do research and find reliable information. This was due to not having an easy and convenient single point of reference that could tie together all the searches regarding dogs in one place. Once we identified this design problem we came together as a group and decided that we would create a UI that would solve this problem. The title we decided on was *Barkipedia*, a play on Wikipedia, because we wanted our application to be a reliable and crowdsourced form of information.

With the identification of the design problem and the birth of *Barkipedia*, we as a group came together to identify the intended end-users and stakeholders that *Barkipedia* would affect. The end-users would include anyone interested in dogs and is looking for information on them. Therefore, it was agreed upon that dog enthusiasts and owners of any experience level were the intended end-users for our application and UI. When considering the stake-holders of *Barkipedia*, we identified that not only our intended end-users would be affected, but so would those that run the services and events in the city who will get exposure from the app.

Now that we've identified the end-users and stakeholders, our group conducted research to guide the decisions of what features we would include in our UI. The research we decided to conduct were Extreme User Interviews and Secondary Research. In the Extreme User Interviews, we targeted two specific extremes in terms of dog owning experiences. These two extremes were people who have owned dogs for a very long time, and people who have never had a dog or just got a dog recently. With the results of the interviews, we learned about what the typical dog owner / enthusiast does research on. With that information, we were able to make decisions on what features we wanted to include. With the Secondary research we investigated how our targeted end-users would do their research, this would be through looking at applications that dealt with searching through events, services, and forums for information. We looked at popular applications like Facebook Events, Yelp, and Reddit for this research. After researching these applications, we were able to decide on what functionality we wanted our features to have and how we would present that functionality in our UI. The features we decided to focus on for our UI were: Events, Services & Reviews, Forums, and Profiles for the user and their dogs. We agreed that this would cover all the basis of the issues that our interviews exposed when looking up dog information.

With our research complete and our findings analyzed, we created a low fidelity prototype. From that low fidelity prototype, we were able to visualize what our application would look like and decide on both the aesthetic and functionality moving forward. From our low fidelity prototype, we created an initial high-fidelity prototype on Adobe XD. Based on the results of the research, we made design choices such as creating the Events section that filtered by hottest/soonest/closest, creating premade filters for Services that had sections like vet/groomers/pet sitter/ pet store/ training, creating a forum that showed nine initial subforums and a collection of icons underneath the subforum heading to easily navigate to other subforums, and creating a profile page that had both the features of viewing feeds for your events/reviews/posts and creating a personalized profile for your dog. We justified these design implementations because of the research we conducted along with our own personal experience using these different types of features in different applications. With our initial high-fidelity prototype completed, we were able to interact with our UI and pass off our UI to another group to do heuristic evaluation.

With 5 heuristic evaluations on our initial high-fidelity prototype completed, we parsed through the reports and wrote up a summary of what issues were found. The main issues were formatting so that the application could be more legible, removing redundant buttons, and making it easier for users to understand what part of the application they were currently on. We conducted a deep heuristic evaluation ourselves as a group and together with the findings of the other group and our own group, created a checklist of high and low priority issues. We completed all the high priority issues and most of the low priority issues and created a final prototype of our UI. The heuristic evaluation findings helped us make design changes that bolstered the usability and made the user experience better.

Although there was a lot of good feedback from the heuristic evaluations done externally and internally, there were just some design changes and features that we could fully implement. In the next iteration of the design, the recommended changes that we would like to make include a messaging system between users, the ability to view all events/services/forums, the ability to create your own events, a functionality that would show you recommended events and services based on your activity, and a personal dog scheduler that would send reminders based on things like going to the vet for a checkup or to an event you have RSVP'd for. Although these features were not included this time around, we are certain that adding these features to the next iteration of this design would make the UI and application even better in terms of user experience.

Introduction

Our group has developed a User Interface for our original application *Barkipedia.* The goal of our UI is to allow *Barkipedia* to be an all-inclusive, one-stop app for gathering information for everything dog related. What began as a joke, blossomed into a full-blown project that tackled the issues of doing research regarding our furry companions. With the development of our User Interface, we have merged all the different paths taken to do research into one. In this report, you will find a high level explanation of the design problem we have solved, the end-users and stakeholders that *Barkipedia* affects, the research conducted and their results, our design decisions and the logic behind them, the meaningful and insightful heuristics report conducted by another group for our initial prototype and the design changes made in response to them, and what we would do in future iterations of our User Interface.

Design Problem

The design problem that our group addressed was one regarding the difficulty of obtaining reliable, coherent, and specific information regarding dogs. The idea of a "Social Network for Dogs" started off as a joke, but upon further deliberation we all realized that there were issues regarding researching dog related topics. Things like doing research on what you would need to own a dog, the services you would use, the events that you could attend, and a centralized hub for exchanging information on dogs were the first to come to mind when discussing these issues. To conduct this research, one would typically just research online. The problem was that there would usually be an information overload, and there is always the concern of whether that information was reliable or not. After further discussion, we decided to tackle this design problem- the problem of obtaining important information about dogs- efficiently.

End-user and Stakeholders

There are many end-users and stakeholders that would be positively affected because of *Barkipedia*. The targeted users for our application are dog enthusiasts, new dog owners, long time dog owners, and everyone in between. The goal of *Barkipedia* is to be the one-stop app for aggregated information specific to dogs. This is done by collecting all dog related events and services together for easy viewing, creating a forum where users can communicate with each other easily, and creating profiles so that users can interact with each other through the viewing and replying on forum posts and the consideration of user created reviews for services.

The stakeholders for our application are the users mentioned above, along with the community over all. The intended users would be obvious stakeholders, as the way they will use the app will be through asking and answering questions on the forum, setting up profiles for themselves and their dogs, browsing through services and events in their city, and leaving reviews for other users who are interested in getting feedback from the community.

The community at large entails individuals and groups who would not normally be using our app but would still benefit from the app's features. For example, dog service businesses like pet stores, vets, groomers, trainers, and dog sitters- to name a few- would benefit from the exposure from the reviews feature that is implemented in Barkipedia. Event coordinators may benefit from the reviews, forums, and events features in our application as well.

User Research and Findings

The user research we conducted were Extreme User Interviews and Secondary Research. From the interviews, we found that overall, when doing research, dog owners typically conduct it online and hold responses from long time dog owners of the same breed in higher regard than just general information. The most common research topics had to do with dog behavior based on breed. The research done regarding diet was a bit more general unless it had to do with a dog eating something outside of their typical diet that could be potentially dangerous. When searching for services, reviews and ratings were taken into heavy consideration when selecting. Connections to other dog owners did not seem to be as important to younger dog owners as it was with older dog owners. Individuals that were not currently dog owners made it clear that advice from owners of the same breed of dog that they wanted to get was held in high regard. The main findings we found through these interviews was that our target audience held the opinion of other dog owners to a high regard when it comes to making big decisions about their dogs, otherwise general research was fine. This specific finding made our group focus heavily on implementing a forum where users can share information, and the services section where users can influence others through reviews so they can get the best possible service.

From the secondary research we investigated various user interfaces that dealt strictly with events (Facebook and Eventbrite), reviews (Google Reviews and Yelp), and forums (Reddit and Stack Overflow). Our findings regarding events was that the general layout of events should include things like a picture of the event, the event details, and a way to show your status regarding your interest in the event. What we found with reviews was that a simple rating system and comment section worked the best and was the easiest to read. With forums, we preferred the Reddit format, so our design heavily resembles a simpler version of Reddit.

The research conducted helped shape our goals and priorities for our application, especially since we had less than 4 months to complete it. Having a solid foundation of what features we wanted to include and how to format those features helped tremendously in designing our user interface. The success of our user interface finds its roots in the research conducted.

Design and Justification

The major design decisions we made were having 4 central pages, 1 for each of our 4 key features. These 4 features were personalizing profiles for the user and their dogs, being able to view events and keep track of them, being able to search through services and their respective reviews and implementing a forum where the users could interact with each other and share information. We investigated the research conducted and discussed thoroughly within our group and decided that these 4 features were critical to our application and being able to easily navigate to any of them was essential to our design. This was decided because the whole point of *Barkipedia* is to be able to gather any dog related information in one centralized application, and those 4 features were essential for a user to be able to do that.

The should haves included feeds in the profile page, being able to RSVP to events, creating events, and having users share and deeply customize their dog pages. We decided to include feeds in the profile page because we saw it as an extra little feature that tied together the other components of the application. It made navigating through the data that the user was personally interested in much easier, which we agreed was important for our UI, but not more important than having the other features. RSVPing to events was also an extra feature that we decided to implement, because it

furthered the user experience and created a more meaningful interaction between the user and the application. We decided against users creating events because it was not something we thought was completely necessary, and the time constraints did not allow for this addition. It is the same with the deeper customization of the dog pages. While it would have been nice to implement a more in-depth dog page so that other users could view special pages created by the user for their dogs, it was not something that our research found to be mentioned or important, at least in our initial interviews.

Heuristic Evaluation and Findings

The Heuristic Evaluation conducted on our Initial Hi Fidelity Prototype uncovered some important issues that our initial quality assurance sessions missed. The most important findings were:

- Issues with legibility of our text due to formatting
- Redundant buttons on some pages
- Not being able to delete or edit dogs
- Only being able to edit the profile page from the settings tab instead of being able to access editing options on the profile page directly
- Not having the bottom icons become highlighted when you are on a specific section of the application.

As designers of the UI, we focused a lot on functionality and as many design qualities when building the UI, but another set of eyes giving feedback while having no experience with our UI at all was important to have. They found issues we missed or did not think about at all. There were other suggestions like changing the placement of the mini icons underneath the heading of the subforums when in the forums, and being able to view all events at once, but we decided not to make any changes based on this feedback because we stood our ground on those design decisions. Perhaps at a future date we may consider making some of these changes, but due to time constraints, we focused on what major issues were revealed during the heuristics that directly affected the user's experience when in *Barkipedia.*

The design changes that you made based on the heuristic evaluation

Based on the Heuristic Evaluations, we made these changes:

- Formatting changes all throughout the UI to increase legibility by blocking off sections and changing fonts
- Removing redundant buttons by inspecting each page carefully ourselves once more
- Adding the necessary pages to delete and edit dogs
- Moving the edit profile prompt from settings to the profile page
- Implementing the highlighting of icons based on which section of the application you are on

Our group also performed a 30-minute heuristic evaluation of our UI and created a checklist where we prioritized what changes should be made. Along with the findings from the other groups' Heuristic reports we also included changes such as:

- Add titles to the EVENTS / SERVICES / FORUMS / PROFILE PAGE icons
- Change all event pages to have the event icon be the event photo
- Distinguish interested icon from the going icon on the events page
- Settings: combine email, location, and phone number in one page
- Settings: combine notifications
- My Events: add a title to each listed event

At this point, we were very satisfied with our Final Hi Fidelity Prototype. We also realized the incredible value of having Heuristic Evaluations done by other groups on our UI.

Recommendations for Next Iteration of Design

There are a couple recommendations for the next iteration of the design for *Barkipedia* both stemming from internal and external resources. In terms of implementing functionality of certain features, a view all of events could be completed. Internally we had really wanted to create a messaging and friend system, along with a create event functionality where users can create events for their dogs and invite other users and their dogs. The idea of a "Recommended" functionality was also thrown around but could not be implemented in this short timeframe. We also wanted to implement a reminder / agenda functionality that sent reminders for appointments , events, and recommended Besides the recommendations that were not possible due to time constrictions, we really took into consideration the feedback from the other group's heuristic reports and made all the feasible changes we agreed on.

Conclusions

To conclude, the User Interface we developed for the app *Barkipedia* is one that encompasses the spirit of the all-inclusive, one-stop app for gathering information for all things dog related. Our profile page allows users to keep up to date with their activity on the app for easy reference, the ability to create profiles for their dogs, the means to search through events and save them, the ability to discover services and read reviews from other users to help decide on what to choose, and a dedicated dog forum where users can ask any and all questions that is viewed by other dog enthusiasts or dog owners. When considering doing research for anything dog related, instead of having to do Google searches every single time for every single specific topic, you can now just use *Barkipedia* and find everything you need in one app.