

Austin Animal Center Website

Usability Test Report

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Introduction

The Austin Animal Center (AAC) is a municipal animal shelter that operates within the city government of Austin, Texas. The organization's online presence is currently contained within the city government's website (austintexas.gov) under the Animal Services department. The site includes features that allow users to view animals in a single database that are both eligible for adoption and lost/found. Other site content includes information on volunteering, fostering an animal, and spay and neuter outreach.

A usability test is intended to determine the extent an interface facilitates a user's ability to complete routine tasks. Typically the test is conducted with a group of potential users either in a usability lab, remotely (using e-meeting software and telephone connection), or on-site with portable equipment. Users are asked to complete a series of routine tasks. Sessions are recorded and analyzed to identify potential areas for improvement to the web site.

Our group conducted on-site and remote usability test sessions using a live version of the Austin Animal Center website located on either the participant's computer or a facilitator-provided computer. The test facilitator and observers were present in the testing room. The session captured each participant's navigational choices, task completion rates, comments, overall satisfaction ratings, questions, and feedback.

Prior to conducting this usability study, our group met with Kasey Spain, the AAC Marketing and PR Manager, on March 19, 2015 to discuss critical user tasks and metrics to address in the usability test (Appendix A). We also conducted a brief heuristic evaluation (Appendix B) of the website to more closely examine the "View Adoptable Pets" task flow. The information gathered from the stakeholder meeting and brief heuristic evaluation was used to determine relevant participant demographics and the objectives of this usability study.

Executive Summary

Our group conducted a series of usability tests of the AAC website at the University of Texas School of Information in Austin, TX between April 18 and 23, 2015. The purpose of these tests was to assess the usability of the AAC website interface, information flow, and information architecture, with attention paid to pain points in navigation and visual presentation.

Six participants (three male, three female) took part in the usability study. Four of the six (67%) either currently own pets or had owned pets in the past. Two of the six (33%) had previously searched for pets online. Each test session required participants to perform six tasks related to adopting a pet, searching for a lost pet, finding an adoption fair, and finding information about microchip and vaccination services. The same task scenarios were used in all sessions; however, the order of tasks alternated between sessions. Three in-person sessions were conducted on-site at the School of Information, and three remote sessions were moderated through the online desktop sharing/video conferencing service GoToMeeting, allowing test participants to complete tasks in their natural environments.

The median System Usability Scale (SUS) score assigned by participants (53.8) was below average. This score (as well as other quantitative data gathered within each session) reflect issues participants encountered with the AAC site's feature integration, ease of use, and navigation consistency.

Test results revealed the following significant participant pain points:

- Poor differentiation between City of Austin and Austin Animal Center website
- Lack of breadcrumbs
- Buried site features such as "Upcoming Events" and AAC email address
- Lack of AAC-specific search bar
- Limited search filters in "Adopt a Pet" and "Lost & Found"
- Lack of animal microchip number input field when searching for a lost pet
- Inability to view list of events and multiple dates in the City of Austin Calendar

This document details our test methodology and results (task completion rates, task ratings, times on task, errors, and participant feedback) as well as our recommendations for improvements.

Methodology

Sessions

Participants for this usability test were recruited from among our group members' academic and personal contacts. The group members contacted participants by email or phone to request their participation and inform them of test logistics. For remote sessions, participants were sent an orientation email, which provided instructions on how to join a GoToMeeting session and download the desktop client.

Each individual session lasted approximately one hour. Prior to each session, the test facilitators asked the participant to sign an informed consent form (Appendix C) and fill out an online demographic questionnaire (Appendix D). Following the completion of these materials, the test facilitator explained the session structure to the participant by reading from a test script adapted from Krug's (2010) *Rocket Surgery Made Easy* (Appendix E).

The test facilitator read the tasks aloud to participants in both the in-person and remote sessions. A printed copy of the tasks (Appendix F) was provided to participants during in-person sessions, and tasks were entered sequentially into the GoToMeeting chat window during remote sessions. After being presented with the task scenarios, participants used the Internet and/or AAC website to find the requested information.

Following Tasks 3-6, the test facilitator asked each participant to use a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree) to rate their level of agreement with the following statements:

1. I found this task easy to complete.
2. I was satisfied with the features I used to complete this task.
3. I am likely to use the Austin Animal Center website to complete this task in real life.

After all tasks were completed (either successfully or unsuccessfully), the test facilitator asked each participant to complete an exit survey comprising six open-ended questions and the 10 questions from the System Usability Scale (SUS) (Appendix G).

Participants

All participants were academic and personal contacts of the group members. Six participants (three male, three female) were tested over the course of four dates: April 18, 19, 22, and 23, 2015. We conducted three in-person tests and three remote tests using GoToMeeting. All six participants completed the test.

We gathered participant data from the questionnaires administered at the beginning and end of the test. All participants were comfortable with searching for information online, with 83% indicating they were very comfortable. 67% rated their level of technology literacy as high; 33% as low. 67% of participants indicated they either currently own or had previously owned a pet, and 33% indicated they had previously searched for a pet online. 67% of participants currently live in Austin.

The following tables display all six test participants' background characteristics compiled from the demographic questionnaire and exit survey.

Tables 1A-K. Participant Demographic Information

A. Age

18-25 years	26-39 years	40-59 years	60+ years
1	3	1	1

B. Residence

Austin, TX	Clearwater, FL	Philadelphia, PA
4	1	1

C. Gender

Male	Female
3	3

D. Highest degree or level of school completed

Bachelor's degree	Master's degree	Other professional degree
2	2	2

E. Level of technology literacy

Medium	High
2	4

F. Level of comfort with searching for information online

Comfortable	Very comfortable
1	5

G. Marital status

Single	Married or domestic partnership
5	1

H. Pet ownership

Yes	No
4	2

I. Desire to own a pet someday (if participant indicated he/she had not owned a pet)

Yes	Maybe
1	1

J. Level of interest in interacting with cats and dogs

Interested	Indifferent
4	2

K. Previously searched online for a pet

Yes	No
2	4

Evaluation Tasks/Scenarios

The task scenarios were created by group members and formulated based on information gathered during the stakeholder interview on March 19, 2015.

Due to the range of functionality provided in the website and its specificity to different user groups, as well as the short duration of participant sessions, the tasks represented the most common and relatively complex of available functions. Tasks were identical for all participants of a given user role in the study; however, tasks were administered in a different order to half of the participants, as Task 4 may have been made easier based on a participant's experience with the same interface in Task 3 (and vice versa).

Task Order A: 1, 2, 3, 4, 5, 6

Task Order B: 1, 2, 4, 3, 5, 6

Test participants were asked to complete the following tasks (see Appendix F for complete task scenarios):

- Find general information about adopting a pet in Austin
- Go to the Austin Animal Center website
- Use the Austin Animal Center website to complete the following tasks:
 - Adopt a pet
 - Find a lost pet
 - Find an AAC adoption fair event
 - Find microchip and rabies vaccination services

Results

Task Completion

The three test administrators alternated roles (facilitator and test observers) during each test. The two individuals acting as test observers recorded participants' ability to complete tasks without prompting. Any task during which the participant **did not** make a critical error qualified as complete. The goal for each task in this usability test was a completion rate of 80%; nine of ten tasks had a completion rate >80%. Table 2 displays the percentage of test participants who successfully completed each task. Notable data are indicated in red.

All participants completed Tasks 1 and 2; however, they did not need to use the AAC website to do so. All participants also completed all Task 3 subtasks, which required participants to find an animal to adopt as well as information about adoption fees and contacting the AAC. 83% of participants completed Tasks 4a and 4b (related to finding a lost pet) and Task 6 (related to finding information about microchip and vaccination services). Task 5 had the lowest completion rate (67%); it required participants to find an adoption event scheduled during a specified time frame.

Table 2. Task Completion Rate (%) (P = Participant)

	Task 1	Task 2	Task 3a	Task 3b	Task 3c	Task 3d	Task 4a	Task 4b	Task 5	Task 6
P1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P3	✓	✓	✓	✓	✓	✓	✓	X	X	X
P4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P5	✓	✓	✓	✓	✓	✓	✓	✓	X	✓
P6	✓	✓	✓	✓	✓	✓	X	✓	✓	✓
# of participants who completed task	6	6	6	6	6	6	5	5	4	5
Completion Rate	100%	100%	100%	100%	100%	100%	83%	83%	67%	83%

Task Ratings

As previously described, after the completion of each task, participants used a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree) to rate their level of agreement with the following statements:

1. I found this task easy to complete.
2. I was satisfied with the features I used to complete this task.
3. I am likely to use the Austin Animal Center website to complete this task in real life.

We gathered task ratings for Tasks 3-6, as these were the only tasks that required participants to actually use the AAC website. Table 3 displays mean task ratings and the percentage of participants who agreed with each statement. Percentages reflect the total number of participants who indicated ratings on the “agree” side of the scale (i.e., those above the median rating (4)). All six participants responded to the Task 3, 5, and 6 questionnaires, but only five participant ratings were collected for the Task 4 questionnaire due to a survey tool-related tabulation error.

Ease of Completion

All participants agreed it was easy to complete subtasks related to adopting a pet (mean task rating = 5). 66% of participants agreed it was easy to find microchip and vaccination information (mean task rating = 3.7), and 60% agreed it was easy to complete subtasks related to finding a lost pet (mean task rating = 3.7). Only 17% of participants agreed finding an adoption fair was an easy task (mean task rating = 1.5).

Satisfaction with Features

83% of participants agreed they were satisfied with the features they used to complete adoption-related tasks (mean task rating = 4.4), and 80% agreed they were satisfied with those used to complete lost pet-finding tasks (mean task rating = 4). 66% agreed they were satisfied with features related to finding microchip and vaccination information (mean task rating = 4), and only 17% agreed they were satisfied with those related to completing the adoption fair task (mean task rating = 2).

Likelihood of Using Website in Real Life

All participants agreed they would be likely to use the AAC website to adopt a pet (mean task rating = 5.1). 80% of participants agreed they would likely use the website to find a lost pet (mean task rating = 4.3), and 66% agreed they would use it to find microchip and vaccination information (mean task rating = 4.4). Only 33% of participants agreed they would use the AAC website to find an adoption fair (mean task rating = 2.7).

Table 3. Mean Task Ratings & Percent Agree

Task	Ease of Completion	Satisfaction with Features	Likelihood of Using Website	Overall Mean
3 – Adopt a pet	5 (100%)	4.4 (83%)	5.1 (100%)	4.9
4 – Find a lost pet	3.7 (60%)	4 (80%)	4.3 (80%)	4
5 – Find an adoption fair	1.5 (17%)	2 (17%)	2.7 (33%)	2.1
6 – Find microchip and vaccination information	3.7 (66%)	4 (66%)	4.4 (66%)	4

*Percent Agree (%) = Combined “agree” responses (those rated >4)

Time on Task

Time on task (TOT, measured in minutes) for each participant was recorded using iPhone timers during in-person tests and the timer within the GoToMeeting application during remote tests. Participants 2, 3, and 5 were administered Task 4 before Task 3. Users communicated task completion (or abandonment, in some cases) by saying, “I’m done.” Some tasks were inherently more difficult to complete than others; this difficulty is reflected by average times on task. We also calculated overall TOT (i.e., time spent on a related series of subtasks) for those that included multiple steps (Tasks 3 and 4). If a participant demonstrated a critical error while performing a task, his/her time was omitted.

All TOTs, including mean and median times, are listed in Table 4. Task by task descriptions are as follows:

Task 1 required participants to demonstrate how and where they would look for information online if they were adopting a pet in Austin. There was no explicit goal to be met; the task was intentionally left open-ended in order to gauge participants’ awareness of the AAC and its website. The median TOT was approximately two minutes, with times ranging from just under one minute to almost three minutes.

Task 2 required participants to navigate to the AAC website and took the shortest time of all tasks to complete. The median TOT was approximately 20 seconds, and times ranged from 10 seconds to approximately 1:30.

Task 3 involved four subtasks (**a**, **b**, **c**, and **d**) related to the goal of adopting an animal. The median overall TOT was approximately nine minutes, however, the range between the shortest and longest times was almost seven minutes.

Task 3a required participants to search for and select a pet that met certain physical criteria. The median TOT was approximately 3:30, and completion times ranged between 2:00 and 5:30.

Task 3b required participants to search for and select another pet that met different physical criteria. The median TOT was approximately 2:30, and times ranged from approximately 1:20 to 5:00.

Task 3c required participants to find out what services dog adoption fees cover. The median TOT was approximately two minutes, and times ranged between one and three minutes.

Task 3d required participants to find a way to email someone at the AAC. The median TOT was approximately 30 seconds, and times ranged from 15 seconds to approximately 1:30.

Task 4 involved two subtasks (**a** and **b**) related to the goal of finding a lost pet. The median overall TOT was approximately 3:30, with times ranging between 1:20 and 5:30. Two participants demonstrated critical errors in Tasks 4a and 4b respectively (detailed below).

Task 4a required participants to check the AAC website to see if the missing pet was in their care. The median TOT was approximately 2:30, and times ranged between 1:30 and 4:30. Participant 5 demonstrated a critical error after approximately four minutes (the longest time spent on the task), noting he could not find an animal matching the provided description and would search for his pet elsewhere.

Task 4b required participants to determine how they would find a missing pet after learning it was not at the AAC. The median TOT was approximately 1:30, and times ranged between one and just over three minutes. Participant 4 demonstrated a critical error at approximately the three-minute mark, abandoning the website in favor of Google to search for other locations where her pet may be.

Task 5 required participants to find an adoption fair scheduled within a specific time frame and took the longest time of all tasks to complete. The median TOT was approximately 4:30, and times ranged between four and six minutes. Participants 3 and 5 were unsuccessful in finding a calendar or list of events during this task, failing at approximately the two- and five-minute marks, respectively.

Task 6 required participants to find out how to access microchip and vaccination services. The median TOT was approximately 4:30. The range between shortest and longest completion times was approximately five minutes, the largest range of all tasks. Participant 3 failed at completing this task, as she found information about only microchip services.

Table 4. Time on Task (m:ss) (P = Participant)

	1	2	3a	3b	3c	3d	4a	4b	5	6
P1	1:17	0:10	5:35	1:50	1:28	0:40	2:20	1:22	5:40	2:20
P2	0:52	0:14	2:20	1:24	1:01	0:20	1:43	0:44	4:55	2:28
P3	3:09	1:22	2:12	3:00	2:39	1:21	1:39	-	-	-
P4	2:40	0:19	2:58	5:07	1:55	0:15	2:22	2:43	4:15	2:14
P5	1:44	0:20	3:57	1:23	1:55	0:22	4:22	1:05	-	3:42
P6	2:15	0:23	3:53	4:09	3:03	0:37	-	3:15	4:15	7:42
Mean TOT	1:59	0:28	3:29	2:48	2:00	0:35	2:28	1:50	4:46	3:41
Median TOT	1:59	0:19	3:25	2:25	1:55	0:29	2:20	1:22	4:35	2:28

Table 5. Overall Time on Task for Tasks 3 & 4 (m:ss)

	Task 3 (a, b, c, & d)	Task 4 (a & b)
P1	5:05	3:42
P2	7:37	2:27
P3	9:12	1:39
P4	9:33	5:05
P5	9:53	5:27
P6	11:42	3:15
Mean TOT	9:23	3:36
Median TOT	9:22	3:29

Errors

As with the determination of task completion, the two individuals acting as test observers captured the number of errors (both critical and noncritical) participants made while trying to complete task scenarios (Table 6). Relative to the median number of errors (3), participants made an above-average number of errors during Tasks 3b, 4a, and 6 (4 total in each). Participants made the most errors (8 total) during Task 5.

Table 6. Errors (Critical and Non-Critical) (P = Participant)

	1	2	3a	3b	3c	3d	4a	4b	5	6
P1	0	0	1	1	1	0	1	0	2	1
P2	0	0	0	0	0	0	0	0	3	0
P3	0	0	1	0	2	0	1	1	1	1
P4	0	0	0	1	0	0	1	0	1	2
P5	0	0	0	0	0	1	0	0	1	0
P6	0	0	0	2	0	0	1	0	0	0
Total Errors	0	0	2	4	3	1	4	1	8	4

The error-free rate goal for each task in this study was 80%, but only four of ten tasks had an error-free rate >80%. Table 7 displays error-free rates (i.e., the percentage of test participants who completed the tasks without any errors) for each task.

Table 7. Error-Free Rates

	1	2	3a	3b	3c	3d	4a	4b	5	6
Total # of participants who made critical or noncritical errors	0	0	2	3	2	1	4	1	5	3
Error-Free Rate	100%	100%	67%	50%	67%	83%	33%	83%	17%	50%

Summary of Data

Table 8 displays a summary of the test data. Relatively low completion rates and satisfaction ratings and high numbers of errors and times on task are highlighted in red. Task 5, which required participants to find an adoption fair scheduled within a specified time frame, had the lowest completion rates and satisfaction ratings, and the highest number of errors and time on task. Tasks 4 (a and b), 5, and 6 were not completed by at least one participant, and 75% of satisfaction scores were equal to or less than the median.

Table 8. Summary of Completion Rate, Errors, Time on Task, and Mean Satisfaction

Task	Task Completion Rate	Errors	Median Time on Task	Satisfaction* (highest possible score = 7)
1	100%	0	1:59	NA
2	100%	0	0:19	NA
3a	100%	2	3:25	4.9
3b	100%	4	2:25	
3c	100%	3	1:55	
3d	100%	1	0:29	
4a	83%	4	2:20	4
4b	83%	1	1:22	
5	67%	8	4:35	2.1
6	83%	4	2:28	4

* Satisfaction = Mean combined rating across three post-task measures: ease of completion, satisfaction with features, and likelihood of using website in real life

Overall Metrics

Overall Ratings

At the end of each test, we administered an exit survey (Appendix G) composed of 16 questions, ten of which comprise the System Usability Scale (SUS):

- I think that I would like to use this system frequently.
- I found the system unnecessarily complex.
- I thought the system was easy to use.
- I think that I would need the support of a technical person to be able to use this system.
- I found the various functions in this system were well integrated.
- I thought there was too much inconsistency in this system.
- I would imagine that most people would learn to use this system very quickly.
- I found the system very cumbersome to use.

- I felt very confident using the system.
- I needed to learn a lot of things before I could get going with this system.

Table 9 displays individual and average SUS scores. The median score (53.8) is considered below average per Sauro’s (2011) usability studies.

Table 9. SUS Scores

Participant 1	40
Participant 2	72.5
Participant 3	45
Participant 4	55
Participant 5	52.5
Participant 6	60
Mean	54.2
Median	53.8

Likes, Dislikes, and Participant Recommendations

The remaining six questions in the exit survey were open-ended and designed to allow participants to provide feedback regarding what they liked most/least about the website and make recommendations for improvement. The following sections are divided into specific site areas and functions and reflect participants’ verbal and written comments.

Likes

Content

- The breadth of information available
- Videos and pictures of animals

Specific Features

- “Found Pet” map
- Search system for finding cats and dogs
- Free rabies and vaccination services highlighted on the homepage

Dislikes

Content

- Text density of certain pages, which one participant referred to as “walls of text”
- Lack of clarity about whether information listed on the site is purely informative or a service actually offered by the AAC
- Lack of breadcrumbs

Site Navigation

- Lack of breadcrumbs
 - Unclear status or indication about location in site architecture
 - One participant commented, “breadcrumbs disappear when I move from page to page and are inconsistent”
 - No breadcrumbs on event information pages
- Poor distinction between City of Austin and Austin Animal Center website
 - One participant commented he experienced “confusion between City of Austin and Austin Animal Center due to the City banner at the top and no real banner for AAC”
 - Another wrote, “The upper hierarchy and architecture wasn't super helpful for tasks... government menu at the top is unnecessary and confusing”
- Unclear paths to information
 - Upcoming event information
 - Several participants expected to find this under “Programs” and did not think that “Upcoming Events” on the homepage was a clickable link
 - Email link for contact information
 - Very small
 - “Browse Adoptable Pets” and “Search for Your Lost Pet”
 - A participant commented that “the buttons look like images/ads and are therefore easy to ignore or miss”

Searchability

- Lack of AAC-specific search bar
 - One participant wrote, “I kept looking for a ‘SEARCH’ box for the website to quickly find what I needed, but did not see one”
- Lack of animal microchip number input field
 - Several participants were confused by the Animal ID feature observed in “Adopt a Pet” and thought it was a field for entering in a microchip number

- Frustrated by lack of field to enter in a microchip number to find a lost pet
- Limited search filters in “Adopt a Pet” and “Lost & Found”
 - Unclear about meaning of “small, medium and large” in the pet weight/ size filter
 - Lack of options for searching for older animals; only option available was “more than 1 year”
 - One participant wrote, “When looking to adopt a pet, all the variables are not listed in a row--the dog color choice is all the way on the bottom and not in the same format as the other choices (others are listed down and the colors go across)--for some reason it was harder for me to see that all the way on the bottom”
- Inability to view list of events or multiple dates in calendar
 - Difficult to search for events without a list view; one participant noted, “I had to click every day in calendar”

Participant Recommendations for Improvement

- Make the calendar more easily accessible
 - “Events calendar with maybe dots or colors that indicate what days have events, or what days have certain types of events (adoption, volunteer, vaccination); If this exists, make it easier to find”
 - “Easily accessible calendar with up to date content”
- Make contact information more visible
 - “An obvious Contact Us tab!”
 - “An ‘envelope’ icon next to the email contact information”
 - “The email and support text in brown should be a different color that pops”
- Provide a place to enter microchip information
 - “There should be a link or place to type in the chip number from your lost animal and link it to a central database in order to see if your pet is at the Austin Animal Center or at another shelter, etc.”
- Provide a better way to search and navigate the AAC section of the website
 - “A search box for key items on the site”
 - “More consistent breadcrumbs and clearer structure and organization”

Recommendations

The recommendations section provides proposed changes and justifications driven by the participant task completion rates, behaviors, and comments. Each recommendation includes a priority level based on the observation/problem’s severity rating. The following recommendations will improve the overall ease of use and address the areas where participants experienced problems or found the interface/information architecture unclear.

Observation	Recommendation	Priority Level
Participants found videos and pictures of animals to be helpful, useful, and important.	<ul style="list-style-type: none"> • Emphasize and continue to spotlight animal media on main pages of the website • Include higher quality animal photos in the “Adopt a Pet” and “Lost and Found” sections 	High
Participants disliked high text density and excessive scrolling and hunting to find the information they need.	<ul style="list-style-type: none"> • Reduce text density on pages, by employing <ul style="list-style-type: none"> ○ White space ○ Paragraph reformatting ○ Reduced/consolidated content content ○ Headers, bullets, and titles • Place most commonly requested information in immediate, prominent locations, i.e., do not distribute related information across multiple pages, and do not place important information too far below the fold (for example, there is an excess of content on the “Adopt a Pet” page) 	High
Participants were confused by the Animal ID feature and consistently thought it was a field for entering a microchip number.	<ul style="list-style-type: none"> • Describe purpose of Animal ID and indicate it is not a pet microchip number • Place the Animal ID search bar in a less central location, as currently it may be mistaken for a general search function, and was treated as such by some participants 	High
Participants expressed dissatisfaction with search filters in “Adopt a Pet” and “Lost and Found Pet” pages.	<ul style="list-style-type: none"> • Offer more descriptive search parameters <ul style="list-style-type: none"> ○ Indicate weight range (lbs.) next to small, medium, and large designation ○ Offer more granular age ranges for older animals, especially differentiating between adult and senior ○ Move “color grouping” parameter to the same level as other search parameters, as currently it may be overlooked completely 	High

Recommendations (continued)

Observation	Recommendation	Priority Level
All participants expressed frustration and dissatisfaction with the Upcoming Events calendar view (see Task 5)	<ul style="list-style-type: none"> • Offer an easily accessible calendar in a prominent location on the main page. • Relocate “Upcoming Events” either in the left-hand sidebar menu as an item, or else in central body area with/replaced by event fliers • Consider moving “Recent News” and “Pet of the Week” to either left or right sidebars 	High
Participants expressed confusion about what was included under “Programs.”	<ul style="list-style-type: none"> • Re-label “Programs” to clearly indicate its contents, as currently it may be confused with upcoming events <ul style="list-style-type: none"> ◦ “Services” may be a more appropriate label) 	Medium
Participants became lost or had trouble determining their present location in the site architecture.	<ul style="list-style-type: none"> • Offer consistent, visible breadcrumbs throughout the entire website 	Medium
Most participants expressed frustration with lack of AAC-specific search bar.	<ul style="list-style-type: none"> • Offer an internal search bar, which would greatly improve the findability of information across the AAC website 	Medium
Participants had trouble discerning between the City of Austin and AAC websites, and some clicked CoA links by mistake.	<ul style="list-style-type: none"> • Change the look and feel of the AAC website so that it is distinct from the City of Austin framework • Offer more prominent and centrally-oriented links so that users will not mistake CoA links for AAC 	Low
Participants had trouble finding the AAC email contact information.	<ul style="list-style-type: none"> • Include a clear and prominent “Contact Us” tab in the sidebar menu that redirects to the mail form, or else an easily identifiable email address with an envelope icon next to it 	Low

Conclusion

This report presents a detailed account of common use cases of the Austin Animal Center (AAC) website. We invited six participants from a variety of backgrounds to assess six tasks on the AAC website, including tasks for adopting a pet, searching for a lost pet, finding information about AAC services, and locating information on upcoming AAC events.

Most participants successfully completed all tasks and subtasks; however, error rates were variable, with the most critical and non-critical errors occurring in Tasks 3b (searching for a pet that met certain physical criteria), 4a (finding a missing pet), 5 (finding an upcoming adoption fair), and 6 (finding microchip and vaccination services information). Most participants commented on the ambiguous function of the Animal ID search bar, and all found the inability to search by microchip number to be frustrating. Many also desired more descriptive search parameters when adopting a pet or looking for a lost pet. Most participants struggled significantly with the Upcoming Events calendar and found the interface to be unhelpful and uninformative; conversely, participants liked the Events fliers featured on the front page.

Our findings point to areas where the AAC website could see beneficial development. All participants noted that AAC would be one of their first resources when adopting a pet and searching for a lost pet in Austin, but during our evaluations, several also expressed frustration with the site and left it entirely to perform a Google search for information instead. It should also be noted that, in preliminary web searches for adopting a pet in Austin (Task 1), many participants landed on and explored the Austin Pets Alive! website first, as it appears before the AAC website in Google search results.

Given the existing overpopulation crisis at animal shelters throughout Austin, it is vital that information resources for animal adoption, recovery, control and vaccination be disseminated to the public. Although a complete redesign of the AAC website may not be immediately possible, an ongoing discussion of usability challenges, alternatives, and the pros and cons of each would help the City of Austin to identify pain points that can someday be resolved. As described in this report, many of these points can be structured and answered through application of the recommendations we have made herein.

Appendix A. March 19, 2015 Stakeholder Meeting Notes

AAC

- No other municipal shelter in the nation houses as many animals as AAC.
- Largest no-kill shelter in the nation.
- 76% of homes in Austin have pets.
- Working primarily for two groups: Adopters and people looking for lost pets.

AAC Website

- AAC Website is #2 or 3 of most used govt. site in Austin.
- Usage of the site is situational: Not going to visit the site until you need it.
- Usage statistics for:
 - Top stories section
 - Petfinder viewer
- AAC added the 6 buttons (Adopt, Lost and Found, Volunteer, Foster, Spay and Neuter, etc.) to distinguish their organization from other CoA sites and address perceived user needs.

Chameleon system

A CMS for animal shelters that dates back to 1998.

- Not directly accessible/interrelated with the website. It auto generates info in Petfinder, like a third party viewer in the Adoptable pets frame window.
- Features
 - AID - animal identification number
 - Portal for each animal to have a profile
 - Move animals around in kennels
 - Generates kennel cards
 - People profiles (adopters, volunteers, fosters, microchipped and ID'd here) - PID (person identification number)
- A committee is working on a new Chameleon system to accommodate perceived needs.
- Chameleon alternatives, which are not as powerful, but more user friendly and updated more often:
 - PetPoint, Shelter Buddy, Petango

Appendix A. March 19, 2015 Stakeholder Meeting Notes (continued)

Perceived Needs and Feature Requests

- Critical need: Ability to search for animals, and more photos of animals
- Critical need: Information on free rabies clinics, microchipping, spay neuter outreach
 - Features of the site that would be used more often if people knew what was offered
- Integrate Chameleon CMS digitally with a website
- Searching for pets by description (better filters)
- Regular pet of the week slot (generated from pets put into the Chameleon system)
- Calendar of Events
- News Stories and press releases on the website pushed to social media (what's going on and official press releases)
- Monthly reports
- For Kasey: Would be great to have email notifications about animal (e.g. Dog came in from this location, this age, this description) to push out to twitter, website, etc.
 - Mobile, iPad friendly. reading notes about the animals (iPads on each kennel)

Appendix B. Heuristic Evaluation

View Adoptable Pets Interface

Heuristic	Issue	Severity
User control and freedom	<ul style="list-style-type: none"> ● Search/filter parameters are limited (e.g. no way to search by breed, location [in foster, TLAC, AAC], or name) ● Frame within window is limiting and difficult to navigate (too much scrolling within a constrained space) 	Medium
Consistency and standards	<ul style="list-style-type: none"> ● “Previous step”, which refers to the initial search/filter parameter seems to be confusing labeling (is it the previous page or what?) ● Page breadcrumbs are provided on the top of the page so that users can see where they are in a task and go back if necessary <ul style="list-style-type: none"> ○ However, when user selects “Browse Adoptable Pets”, he/she is taken to a page called “View Adoptable Pets” and the breadcrumbs at the top of the page does not display the last page he/she was on ○ This is also an issue after the user performs his/her animal search query, he/she can’t go back to the query page using the breadcrumbs 	High
Recognition rather than recall	<ul style="list-style-type: none"> ● Would be nice if there was a “bookmark”/“favorite” feature for browsing pets, rather than making users remember the animal ID ● Maximum search option is hidden below Page # navigation ● Featured adoptable pet and success stories are hidden under the Page # navigation and look like ads or warnings. ● “Customize this view” would be better served at the top of the page rather than the bottom. 	Medium
Aesthetic and minimalist design	<ul style="list-style-type: none"> ● Cluttered layout/too much competing information throughout Adopt a Pet pages, which reduces the visibility of what is important ● Petharbor interface is certainly minimalist but the aesthetics are inconsistent with the rest of the website. ● Column text bleeds together. Need differentiation/borders. ● Specific pet “page” is <i>*too*</i> minimalist -- text blocks lack 	High

	<p>margins, no immediate differentiation of important facts (i.e. could use bolding or more clear labeling of animal physical description, age, etc.).</p> <ul style="list-style-type: none"> • “Back” button is just a floating text link. (which also relates to User control and freedom) • By increasing image size in “Customize this view” you run into the problem of horizontal scrolling within the frame... 	
Error Prevention	<ul style="list-style-type: none"> • User cannot view all the animals at one time; if no preference is indicated for all the fields, the user gets an error message saying they must select at least one field. There’s nothing to indicate this would be an issue until the user receives this error message. 	Medium
Visibility of System Status	<ul style="list-style-type: none"> • On the Animal search results page, page numbers only appear on the bottom of the embedded scroll box. This is cumbersome for the user. Displaying these at the top of the page as well would give the user a better idea of the amount of search results (which also relates to User Control and Freedom) 	Medium

Appendix C. Informed Consent Forms

Remote

During this usability test, I agree to participate in an online session using GoToMeeting on my computer. During the session, I will be interviewed about a website, asked to find information or complete tasks using the site, and asked to complete online questionnaires about the experience.

I understand and consent to the use and release of the recording by Pearl Ko, Stefanie Roberts, and Kristin Sullivan, researchers and students in INF385P Usability at the UT Austin School of Information. I understand that the information and recording are for research purposes only and that my name and image will not be used for any other purpose. I relinquish any rights to the recording and understand the recording may be copied and used by the aforementioned researchers without further permission.

I understand that participation is voluntary and I agree to immediately raise any concerns I might have. I understand that I may discontinue the test at any time without penalty.

Please type your name below as an electronic signature indicating that you have read and understand the information above and that any questions you might have about the session have been answered.

If you have any questions after today, please contact Stefanie Roberts at stefanieroberts@utexas.edu.

Electronic signature

Name (first and last):

Date:

Appendix C. Informed Consent Forms (continued)

In-Person

I agree to participate in the study conducted and recorded by Pearl Ko, Stefanie Roberts, and Kristin Sullivan, researchers and students in INF385P Usability at the UT Austin School of Information.

I understand and consent to the use and release of the recording by the aforementioned researchers. I understand that the information and recording is for research purposes only and that my name and image will not be used for any other purpose. I relinquish any rights to the recording and understand the recording may be copied and used by the aforementioned researchers without further permission.

I understand that participation in this usability study is voluntary and I agree to immediately raise any concerns or areas of discomfort during the session with the study administrator.

Please sign below to indicate that you have read and you understand the information on this form and that any questions you might have about the session have been answered.

Date: _____

Please print your name: _____

Please sign your name: _____

Thank you! We appreciate your participation.

Appendix D. Demographic Questionnaire

What is your age?

- 18-25 years
- 26-39 years
- 40-59 years
- 60+ years

In what city and state do you currently reside?

City

State

What is your gender?

- Male
- Female
- Other

What is the highest degree or level of school you have completed? If currently enrolled, select the highest degree received.

- High school
- Trade/technical/vocational training
- Associate degree
- Bachelor's degree
- Master's degree
- Other professional degree

How would you describe your level of technology literacy?

- Low
- Medium
- High

How would you describe your level of comfort with searching for information online?

- Very uncomfortable
- Uncomfortable
- Comfortable
- Very comfortable

Appendix D. Demographic Questionnaire (continued)

What is your marital status?

- Single
- Married or domestic partnership
- Separated
- Divorced
- Widowed

Have you ever owned a pet(s)?

- Yes
- No

[Do you hope to own a pet someday?

- Yes
- Maybe
- No]

How would you rate your level of interest in interacting with cats and dogs?

- Interested
- Indifferent
- Uninterested

Appendix E. Usability Test Script

Adapted from Steve Krug's *Rocket Surgery Made Easy*, 2010.

Hi, _____. My name is _____, and I'm going to be walking you through this session today.

Before we begin, I have some information for you, and I'm going to read it to make sure that I cover everything.

You probably already have a good idea of why we asked you here, but let me go over it again briefly. We're asking people to try using a website that we're working on so we can see whether it works as intended. The session should take about an hour.

The first thing I want to make clear right away is that we're testing the **site**, not you. You can't do anything wrong here. In fact, this is probably the one place today where you don't have to worry about making mistakes.

As you use the site, I'm going to ask you as much as possible to try to think out loud: to say what you're looking at, what you're trying to do, and what you're thinking. This will be a big help to us.

Also, **please** don't worry that you're going to hurt our feelings. We're doing this to improve the site, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we're interested in how people do when they don't have someone sitting next to them to help. But if you still have any questions when we're done I'll try to answer them then. And if you need to take a break at any point, just let me know.

You may have noticed the iPhone on the table. With your permission, we're going to record what happens in our conversation. The recording will only be used to help us figure out how to improve the site, and it won't be seen by anyone except the people working on this project. And it helps me, because I don't have to take as many notes.

Appendix E. Usability Test Script (continued)

If you would, I'm going to ask you to sign a simple permission form for us. It just says that we have your permission to record you, and that the recording will only be heard by the people working on the project and UT iSchool students.

Give participant a recording permission form and a pen. While he/she signs it, start the audio recorder.

Do you have any questions so far?

OK. Before we look at the site, I'd like to ask **you** just a few quick questions.

First, what's your occupation? What do you do all day?

Now, roughly how many hours a week altogether—just a ballpark estimate— would you say you spend using the Internet, including Web browsing and email, at work and at home?

And what's the split between email and browsing—a rough percentage?

What kinds of sites are you looking at when you browse the Web?

Do you have any favorite Web sites?

OK, great. We're done with the questions, and we can start looking at things.

Now I'm going to ask you to try doing some specific tasks. I'm going to read each one out loud and give you a printed copy. And again, as much as possible, it will help us if you can try to think out loud as you go along.

Appendix F. Test Tasks

Task 1. You're looking to adopt a pet in Austin, where would you go?

Task 2. Go to the Austin Animal Center Website

Task 3. Adopt a Pet

You know you definitely want to adopt an animal, but you're not sure what kind. Use the AAC website to find an animal you'd be interested in adopting.

3a. You decide you want a sedentary dog that's small enough to fit in your apartment. Find a dog that weighs about 15 pounds and is 7+ years old.

3b. You change your mind and decide you want a dog that's the same weight, but a bit younger. Find a dog that weighs about 15 pounds, is 2+ years old, and black (so that it can get dirty without people noticing right away).

3c. Now that you've found your dream dog, you want more details about the adoption. Find out what the adoption fees cover.

3d. You want more information about adoption fees, but you'd prefer to email someone rather than make a phone call. Find a way to contact someone at the AAC.

Task 4. Find Lost Pet

4a. Your two-week-old kitten, Munchkin, has gone missing and you're panicking. She's a brown domestic short-hair and has a microchip. Check the AAC website to see if she's in their care.

4b. You didn't find Munchkin. What would be your next step?

Task 5. Find upcoming adoption fair in last 2 weeks of April

You are interested in attending an animal adoption fair. The only time you are available is the last week of April. How would you look up this information on the site?

Task 6. Find rabies/microchip services

You adopted a sweet boxer mix puppy named Molly and want to get her microchipped and up-to-date on vaccinations. Find out how to access these services.

Appendix G. Exit Survey

Thanks for participating in our usability study! We appreciate you completing this exit survey before you go.

Please fill in the fields below.

Name

Email

Date

Please rate the following:

	Strongly Disagree			Strongly Agree	
	1	2	3	4	5
I think that I would like to use this system frequently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
I found the system unnecessarily complex.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
I thought the system was easy to use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
I think that I would need the support of a technical person to be able to use this system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
I found the various functions in this system were well integrated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
I thought there was too much inconsistency in this system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix G. Exit Survey (continued)

	1	2	3	4	5
I would imagine that most people would learn to use this system very quickly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found the system very cumbersome to use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt very confident using the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I needed to learn a lot of things before I could get going with this system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What website features (if any) were vague or confusing to you?

What did you like best?

What did you like least?

What else should be included in the Austin Animal Center website?

Before today's test, had you ever searched for a pet online? If so, when and where?

Is there anything else you'd like to share about your experience using the Austin Animal Center website?