

Austin Habitat for Humanity

Usability Test Report

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Executive Summary

The usability evaluation for Austin Habitat for Humanity's Web site was conducted on the fifth floor of the University of Texas Administration Building on November 7 and November 14, 2011. The test aimed to evaluate the general sense of ease of navigation and organization of information by the four key stakeholders. Some of the areas that were tested through the usability evaluation process were derived from earlier heuristic evaluations conducted by the principal investigators. The evaluation addressed how successfully each of the four key stakeholders was able to navigate and search the site.

Six participants were involved in the usability evaluation, and each session lasted at most forty-five minutes. Participants were given different tasks based on which stakeholder they were asked to be.

Overall, the participants tended to find the Austin Habitat site adequate for their needs but not exceptionally easy to use or aesthetically pleasing. While there were mixed reactions with respect to the navigational structure and hierarchy, 100% of participants noted difficulty locating the search bar on the home page. All participants also expressed dissatisfaction with the required registration before being able to see an events calendar, though everyone indicated that they would recommend the site to a colleague or a friend.

This report contains the participant feedback, satisfaction ratings, task completion rates, limitations of the study, and recommendations for improvements. Copies of the consent forms, scenarios, and questionnaires are included at the end of the report.

Introduction

Austin Habitat for Humanity aims to end poverty housing through homeownership. The organization builds homes in partnership with homeowner families and volunteers and with the support of donors and sponsors. As such, the organization's Web site is a resource for at least four key stakeholders: homeowner applicants, volunteers, donors and sponsors, and employees of Austin Habitat for Humanity.

- **Homeowner applicants** include people in need of affordable housing, current homeowners in need of affordable home repair, and people who need housing counseling services. Homeowner applicants visit the Web site to get information about how to qualify for a Habitat house or home repairs and how long the application process is. They also visit the site for information about money and credit management. Homeowner applicants may not have much computer experience or regular access to a computer.
- **Volunteers** include anyone interested in helping Austin Habitat for Humanity (HFH) build affordable housing in partnership with homeowners. Volunteers may be individuals, groups, young professionals, and AmeriCorps members who want to help in construction or non-construction activities. They visit the site to find out about upcoming builds or office work opportunities, as well as to complete online volunteer orientation and learn the details of a typical build day.



- **Donors and sponsors** financially support the organization through individual donations, full support of an entire home, or in-kind donations, such as building materials or gently used tools. Donors and sponsors want to know how to directly donate money or in-kind donations.
- **Employees** of Austin HFH use the site as a general information resource. New employees use it to learn about the organization, and current employees use it to refer other stakeholders to specific information.

Purpose of the Usability Evaluation

The usability evaluation tested the general sense of ease of navigation and organization of information on the Austin HFH Web site by the four key stakeholders. Some of the areas that were tested through the usability evaluation process were derived from earlier heuristic evaluations conducted by the principal investigators. Other concerns were identified by the development manager and team. The evaluation addressed how successfully each of the four key stakeholders were able to navigate the site.

Usability Evaluation Goals

Based on the purpose of the usability evaluation, the goals were to determine overall user satisfaction, to identify any major problem areas in the navigational structure and organization of the site, and to offer suggestions for site redesign.

This evaluation was based on the following usability goals, based on a preliminary heuristic evaluation of the site:

- Homeowner applicants would be able to learn how to qualify for Austin HFH's programs and services.
- Homeowner applicants would be able to access information about housing counseling services.
- Volunteers would be able to find volunteer opportunities specific for their age and group size.
- Donors and sponsors would be able to find information about how to support Austin HFH financially.
- Donors and sponsors would be able to find information about how to support Austin HFH with in-kind gifts.
- Employees of Austin HFH would be able to find specific and general programmatic and organizational information.

Principal Investigator Roles

Valle Hansen and Sara Snow acted as the principal investigators of the usability evaluations. At all times during the usability tests, one PI will be responsible for facilitating the test and interacting with the participants, while the other PI will observe silently and take detailed notes. We plan to distribute equally our time spent in direct interaction with the participants and our time spent as silent observer.



Ethics

All persons involved with the usability test adhered to the following ethical guidelines:

- The performance of any test participant was not be individually attributable. Individual participant's name was not used in reference outside the testing session.
- At any time during the test, the participant was free to exit the test with impunity.

Methodology

The usability test initially comprised three separate activities for each participant to complete: a card-sorting exercise; a Web task completion; and a post-task questionnaire. This threefold testing would allow for both qualitative and quantitative evaluation and analysis of users' information-seeking behavior and their overall satisfaction with the site's navigation and organization. Unfortunately, due to time and participant constraints, the card-sorting exercise was eliminated in order to focus our attention on the task-based portion of the test. In an attempt to substitute for the loss, we included a semi-structured interview after the post-task questionnaire.

Logistics and Equipment

Testing took place on November 7 and November 14, 2011.

Each session was conducted in either the Information eXperience Lab or the student lounge on the fifth floor of the University of Texas Administration Building. Sessions lasted between 30 and 45 minutes. For the first two tests, participants used their personal laptop computers. For the last four, a desktop computer was provided for the task-based portion of the test. One of the principal investigators (PI) administered the test and monitored the participant's interaction with the Web site, prompting the participant to "think aloud," but otherwise offering no clues or suggestions. The other PI monitored the sessions and took notes silently. The last four test sessions were videotaped using Morae software.

Test Sessions

During the test session, the test administrator read aloud the contents of the informed consent form and prompted the participants for any questions. Participants then signed both the informed consent form as well as a videotape permission form.

In compiling the test plan, the principal investigators identified four key stakeholders who use the Austin Habitat Web site regularly. Based on this information, we designed four separate sets of tasks, one set for each stakeholder. Because our test sample was so limited, we asked each participant to complete two sets of tasks each, "imagining" that they were two different stakeholders as they moved through the task. As we were essentially asking the participants to play a role, the PIs did not include a background/demographic pre-test questionnaire.

Once the forms were signed, participants sat down at the computer and were asked to navigate to the Austin Habitat for Humanity home page. The test administrator then read aloud the first task scenario (of six total) from the first of two stakeholder groups. The participants were then instructed to begin and to "think aloud" as they moved through the site to complete their task. The test administrator began the video recording software, then took notes and observed, occasionally encouraging the participants to think aloud or asking the participants follow-up



questions as unobtrusively as possible. The other investigator observed silently. Participants were instructed to navigate back to the home page after the task, and each of the five subsequent tasks were completed in the same manner.

After the tasks were completed or the facilitator ended the session, the participants were asked to complete a post-test questionnaire and then participate in semi-structured interviews. In the questionnaire, participants rated statements about the usability of the Austin Habitat site on a scale of 1 to 5 (strongly disagree to strongly agree). Features being evaluated were:

- Aesthetics
- Homepage
- Language/labels
- Organization
- Navigation
- Content

Space was included at the bottom of the questionnaire for optional comments.

Finally, a semi-structured interview comprised of five open-ended questions was conducted. Features being evaluated were:

- Overall impressions of the site
- Likes/dislikes
- Recommendations for improvement
- Search function location/capabilities

See Attachments A, B, C, D, and E for the informed consent form and video permission form; the stakeholder tasks; and samples of the post-task questionnaire and the questions guiding the semi-structured interview.

Participants

Six participants were recruited informally from a convenience sample of the University of Texas School of Information graduate students. Each testing session lasted 30–45 minutes.

Two participants were tested on November 7, 2011, in the UT Administration Building’s fifth-floor student lounge. Four participants were tested on November 14, 2011, in the Information eXperience Lab on the fifth floor of the same building.

Participants were given different tasks based on which stakeholder they were asked to be: homeowner applicants, volunteers, donors and sponsors, and employees. No background questionnaire was conducted because the participants were asked to act as one of stakeholders. Actual demographic information could have proven useful, however, which will be discussed in the Limitations section of this report.



	Participant #1	Participant #2	Participant #3	Participant #4	Participant #5	Participant #6
Volunteer	✓		✓			✓
Donor/Sponsor				✓	✓	
Homeowner Applicant		✓		✓	✓	
Employee			✓			✓

Table 1. Participant roles

Tasks and Scenarios

Based on the usability evaluation goals (See Usability Evaluation Goals.), test participants were asked to attempt completion of the following tasks (See Attachment C for complete test tasks and scenarios.):

- Homeowner applicants were asked to learn how to qualify for Austin HFH’s programs and services.
- Homeowner applicants were asked to find information about housing counseling services.
- Volunteers were asked to find volunteer opportunities specific for their age and group size.
- Donors and sponsors were asked to find information about how to support Austin HFH financially and with in-kind gifts.
- Employees of Austin HFH were asked to find specific and general programmatic and organizational information.
- All participants were asked to use the search function to complete one of their first two tasks.

Limitations of the Study

The following limitations were noted by the principal investigators during the course of the usability tests:

- The participants were chosen from a convenience sample and are not representative of the actual populations of users who access the Austin Habitat site.
- During the search evaluations, participants were asked to perform the same task twice—first by browsing and then by using the search bar. This method was found to be somewhat limited, as the participants already knew what to look for in the search results page.
- Telling the participants which group of stakeholders was being tested may have given them clues as to where to look in the navigation.
- A basic pre-test demographic questionnaire might have been helpful in understanding certain predilections of the participants.
- We did not record time on task, which would have been an informative supplement to our study.

Findings

Task Completion

The test administrator recorded task completion success. The majority of tasks were completed with 100% success rates, including three out of the four search tasks. All three employee stakeholder tasks were completed with 100% success. Three tasks in which participants had the most trouble were: the first donor/sponsor task (in-kind giving), with a success rate of 50%; the first volunteer task (non-construction opportunities), with a success rate of only 33.3%; and the homeowner applicant search task, whose participants were 0% successful.

	Participant #1	Participant #2	Participant #3	Participant #4	Participant #5	Participant #6	Success Rate
Volunteer							
Task 1	✓	-	x	-	-	x	33.3%
Task 2	✓	-	✓	-	-	✓	100%
Task 3	-	-	✓	-	-	✓	100%
Donor/Sponsor							
Task 1	-	-	-	x	✓	-	50%
Task 2	-	-	-	✓	✓	-	100%
Task 3	-	-	-	✓	✓	-	100%
Homeowner Applicant							
Task 1	-	-	-	✓	✓	-	100%
Task 2	-	-	-	✓	✓	-	100%
Task 3	-	-	-	x	x	-	0%
Employee							
Task 1	-	✓	✓	-	-	✓	100%
Task 2	-	✓	✓	-	-	✓	100%
Task 3	-	-	✓	-	-	✓	100%

Table 2. Success on Task

Post-Test Questionnaire

After the tasks were completed or the facilitator ended the session, the participants were asked to complete a post-test questionnaire. In the questionnaire, participants rated statements about the usability of the Austin Habitat site on a scale of 1 to 5 (strongly disagree to strongly agree).

None of the participants considered the site aesthetically pleasing. About half of participants considered the language of the site suitable to their needs. Although there was no uniform agreement in any of the questions, the majority of participants agreed that the categories in the

side navigation bar were weighted equally, and that pages on the site contained adequate amounts of information.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Percent Agree
1. The site is aesthetically pleasing.		1	5			0%
2. The site has a good balance of graphics and text.		3	2		1	16.7%
3. The colors on the site are eye-catching.		2.5	3.5			0%
4. The typography (lettering, headings, titles) is attractive.		2	4			0%
5. The home page's layout makes me want to explore the site further.	1	2		3		50%
6. The language on the site (labels, titles) makes sense to me.		1	2	2	1	50%
7. It is easy to find the information I need.		3	.5	.5	2	41.2%
8. The content is organized in an intuitive manner.		3	2	1		16.7%
9. Information is written in a style that suits me.		1	2	2	1	50%
10. Screens have the right amount of information.			2	2	2	66.7%
11. The site is designed with my needs in mind.		1	1	3	1	66.7%
12. The site's content would keep me coming back.	1	1	2	2		33.3%
13. The site is well suited to first-time visitors.	1		2	3		50%
14. The site is well suited to repeat visitors.			2	4		66.7%
15. The categories in the left-side global navigation bar are all of equal importance.		1	1	4		66.7%

*Percent Agree (%) = Agree & Strongly Agree responses combined

Table 3. Post-test questionnaire

Semi-Structured Interview

After the post-test questionnaire, the test administrator conducted a semi-structured interview comprised of five open-ended questions. The following notes and comments were pulled from the participants' responses.

Overall Impressions

- Hard to find information
- Not well-organized



- Fairly well put together; “not terrible”
- “Overall, I guess it’s okay”
- Little things that are not usable, but those are not “dealbreakers”

Likes

- Uniform global navigation across pages
- Four large “action” buttons in the center of the home page
- Headings for scanning in main text
- Categories/labels are good

Dislikes

- Registration required to see opportunities/events
- Menu structure
- Mouse-over and drop-down frustration with the sub-navigation
- Home page is unclear and confusing; doesn’t convey what the site means
- The area on the right side is “too big; a big black waste of space”
- Lots of pages with “random” information
- Too much text
- Bad organization; frustrating hierarchy

Suggestions for Improvement

- Don’t require registration to view calendar
- Find a use for the top white space
- More obvious navigation or site map
- Make it obvious that top-level navigational links are clickable
- Include “About Us” section on the homepage
- Change the picture in the top right of the home page to a more positive image
- Overhaul navigation; “main navigation is good; the sub-navigation is kinda iffy”
- Include more positive images/testimonials

Search Functionality

- Search box not noticeable
- Search engine not helpful; everything is given the same importance in display
- Search results display not too much content, which is good
- Search “sort of works”
- “Could be better”
- Should be located in the top right

Recommendations

Each recommendation in the table below is meant to inform the redesign of Austin Habitat for Humanity’s Web site and includes a priority rating. These recommendations are intended to ensure that Austin Habitat’s site is designed with the needs of the four primary stakeholders in mind.

Recommendation	Reason	Priority
Improve navigation by moving the global navigation bar to the top of the page, where the white space currently is.	Many participants found the navigation unclear and disorienting, to the point of giving up on their task. They suggested fixing the “hover” option to see the drop-down menu, as well as rearranging certain categories.	High
Move search box to top-right corner and improve functionality.	All participants expected to find the search box in the top-right corner of the site. Most of them mentioned that its capability and results page could be more advanced; in particular, one participant noted that the results were not weighted by importance.	High
Avoid using PDFs.	Participants acting as homeowner applicants were not able to view qualification information because Adobe was not installed on the lab computer. Although this could have been avoided pre-test, it is representative of problems potential site users might face.	High
Make calendar viewable to everyone, without registration.	Participants who were asked to utilize the calendar feature (employees and volunteers) were universally frustrated with the fact that the calendar of events/opportunities was off-limits to non-registered users.	High
Add positive images throughout the site.	Two out of six participants expressed desire to see positive images of families throughout the site, especially on the home page.	Medium
Cut down on text and increase heading sizes.	Participants liked scanning for information quickly using headings, but a few users expressed dissatisfaction with the amount of text it was necessary to sift through in order to arrive at the information desired.	Low
Decrease social media area.	One participant expressed the “waste” of this site real estate; navigational space could then be increased and more easily readable. This is marked as a low priority, as only one participant mentioned it; however, the browser did not always display the right side of the Web page, and so not all participants were able to notice it.	Low

Table 4. Recommendations for Austin Habitat’s Web site redesign



Conclusion

Again, participants found the Austin Habitat site adequate for their needs but not exceptionally easy to use or aesthetically pleasing. They expressed a willingness to recommend the site to a colleague or friend because the Habitat program is well-known and one-of-a-kind in its industry. The website, however, could be improved to build upon Habitat's already well-known brand. Although our high-level recommendations are time-intensive and would require significant resources, there are great potential benefits to building a better online user experience. The already positive image of Austin Habitat for Humanity would be improved and the number of people interested and willing to volunteer, donate, and sponsor the organization would also likely increase—an invaluable benefit to an organization that is operated by those three stakeholders.

Usability Test at a Glance

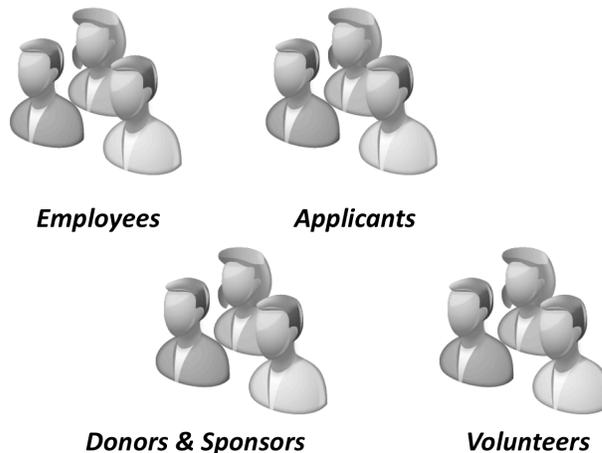
www.austinhabitat.org

Objectives

- Evaluate navigational structure and labeling systems of the site
- Evaluate organizational systems of the site
- Evaluate search function/capabilities

Participants

This study evaluates the information-seeking behavior of **6 users** pulled from the iSchool. These users carried out tasks typical of **four different groups of stakeholders**.



Test

- **Observation** of information-seeking behavior as users perform specific predefined tasks
- **Survey** of information-seeking experience
- **Semi-structured** interview

Logistics

When: November 7 & 15, 2011

Where: Information eXperience Lab, University of Texas School of Information



Attachment A

Usability Test Consent Form

Introduction

Thank you for agreeing to participate in this Web site evaluation. Today we are asking you to serve as an evaluator of this Web site and to complete a set of exercises. These include an observation of your actions in carrying out several predefined tasks, followed by a post-task questionnaire and semi-structured interview. Our goal is to gauge how easy or difficult you find the site to use. We will record your reactions and opinions; we will encourage to “think aloud” and may ask you to clarify statements that you make.

Investigators’ Roles

I’m here to record your reactions to and comments on the Web site you’ll view. In the room next door is another investigator who will also observe your interaction with the site. During this session I will not be able to offer any suggestions or hints. There may be times, however, when I’ll ask you to explain why you said or did something.

Participant’s Role

First we will ask you to search for information on this site based on several predefined scenarios. Once you have completed these tasks, we will ask you to complete a questionnaire about your experiences on the site and then conduct a semi-structured interview.

Things to Keep in Mind

Here are some things that you should know about your participation:

- This is not a test of you; you’re testing the site. Don’t worry about making mistakes.
- There is no right or wrong answer. We are trying to gauge whether the site is designed well.
- If you ever feel that you are lost or cannot complete a scenario with the information that you have been given, please let me know. I’ll ask you what you might do in a real-world setting and then either put you on the right track or move you on to the next scenario.
- We will be video recording this session for further study if needed. Your name will not be associated or reported with data or findings from this evaluation.
- Finally, as you use the site, please do so as you would at home or your office. We do ask that when looking for information, you do so as accurately as you can.

Do you have any questions before we begin?

Signature of Participant

Date



Attachment B

Videotape Release Form

During the evaluation, your image and voice will be captured on videotape. Portions of the video will be used to create a highlight tape that will be shown to the Austin Habitat for Humanity management team and the Web developers responsible for making changes to the Austin HFH site.

I agree to participate in the study conducted and videotaped by Austin HFH.

I understand and consent to the use and release of the videotape by Austin HFH. I understand that the information and videotape 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 videotape and understand the videotape may be copied and used by Austin HFH without further permission.

I understand that I can leave the test at any time.

I agree to immediately raise any concerns or areas of discomfort with the study administrator.

Please print your name: _____

Sign: _____

Date: _____

Thank you! We appreciate your participation.



Attachment C

Participant Scenarios

Volunteers

1. You're a thirty-year-old lawyer who is new to Austin, and you'd like to explore ways to give back to the community through volunteering. You seek out the Austin Habitat Web site because your friends work with Habitat in other cities and you've heard good things about it, although you aren't too interested in building. What do you do?

Please navigate back to the home page.

2. You're sixteen and you've been assigned 40 hours of community service for the summer. Your mom says you have to do something with Austin Habitat. What opportunities do they offer?

Please navigate back to the home page.

3. Now try to complete task #2 using the search function.

Suggested Prompts/Questions:

- *Is the information you need visible and accessible?*
- *Is the information located where it should be?*
- *Are you confident that you found exactly what you were looking for?*
- *Do you feel that you spent too long on a particular task or that there were easier/faster ways of going about completing the task?*



Attachment C (cont'd)

Participant Scenarios

Employees

1. You're in charge of the events calendars and making sure everything is up-to-date. How do you confirm?

Please navigate back to the home page.

2. You are the **new** head of development and fund-raising at Austin Habitat. In order to familiarize yourself with the various fund-raising/donation opportunities offered to the community, you take a look at the Web site. How would you go about this?

Please navigate back to the home page.

3. Now try to complete task #2 using the search function.

Suggested Prompts/Questions:

- *Is the information you need visible and accessible?*
- *Is the information located where it should be?*
- *Are you confident that you found exactly what you were looking for?*
- *Do you feel that you spent too long on a particular task or that there were easier/faster ways of going about completing the task?*



Attachment C (cont'd)

Participant Scenarios

Donors & Sponsors

1. You're a skilled cabinetmaker with a lot of time on your hands, as you've recently been laid off. How would you go about finding ways to help Austin Habitat?

Please navigate back to the home page.

2. You own a fairly large company and you're interested in participating in a matching gift program in which your employees contribute monetary donations and you match that dollar amount. What information can you find on Austin Habitat's Web site?

Please navigate back to the home page.

3. Now try to complete task #2 using the search function.

Suggested Prompts/Questions:

- *Is the information you need visible and accessible?*
- *Is the information located where it should be?*
- *Are you confident that you found exactly what you were looking for?*
- *Do you feel that you spent too long on a particular task or that there were easier/faster ways of going about completing the task?*



Attachment C (cont'd)

Participant Scenarios

Homeowner Applicants

1. You're interested in applying to build a house with Austin Habitat, but you're not sure you meet the requirements because you and your spouse collectively earn \$21,000 in a year. Do you qualify?

Please navigate back to the home page.

2. You've just moved into your brand-new Austin Habitat home, and you're already stressed out about your finances. How can the Austin Habitat site help you?

Please navigate back to the home page.

3. Now try to complete task #2 using the search function.

Suggested Prompts/Questions:

- *Is the information you need visible and accessible?*
- *Is the information located where it should be?*
- *Are you confident that you found exactly what you were looking for?*
- *Do you feel that you spent too long on a particular task or that there were easier/faster ways of going about completing the task?*



Attachment D

Post-Task Questionnaire

Please rate the following statements from 1 to 5, 1 signifying “strongly disagree” and 5 signifying “strongly agree.”

1. ___ The site is aesthetically pleasing.
2. ___ The site has a good balance of graphics and text.
3. ___ The colors on the site are eye-catching.
4. ___ The typography (lettering, headings, titles) is attractive.
5. ___ The home page’s layout makes me want to explore the site further.
6. ___ The language on the site (labels, titles) makes sense to me.
7. ___ It is easy to find the information I need.
8. ___ The content is organized in an intuitive manner.
9. ___ Information is written in a style that suits me.
10. ___ Screens have the right amount of information.
11. ___ The site is designed with my needs in mind.
12. ___ The site’s content would keep me coming back.
13. ___ The site is well suited to first-time visitors.
14. ___ The site is well suited to repeat visitors.
15. ___ The categories in the left-side global navigation bar are all of equal importance.

Thank you for your time. Please use the space below for any additional comments.



Attachment E

Post-Task Semi-structured Interview

We're now going to ask you a series of open-ended questions. Try to be as specific as possible when answering.

1. What are your overall impressions of the Austin Habitat site?
2. What is something you like/dislike about the Web site?
3. If you could make one significant change to this Web site, what change would you make?
4. Would you recommend this Web site to a colleague? To a friend?
5. What are your thoughts on the search function of the site? Does it work the way you think it should? Does the site benefit from the search function?