Evaluating Real Estate Web Sites

EDC 385G: Design and Strategies for New Media
Dr. Min Liu
March 9th, 2006

Sites Evaluated

www.realestate.com
www.realestate.yahoo.com
www.remax.com
www.owners.com
www.realtor.com
www.era.com
www.homesbyowner.com
www.chrealtor.com

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Task

For this assignment, we were asked to evaluate the design and usability of eight commercial real estate sites using a standard set of evaluation criteria. This report describes our methods and findings.

In order to perform this task, we first developed and performed a use case scenario is which we attempted to use the web sites from the standpoint of a representative user. Next, we switched roles and evaluated the sites as designers from the perspectives of interface, interaction, and information design. Finally, we selected and performed a needs assessment on one of the sites that was not well designed.

Our assignment was as follows:

"You wish to buy a house in Austin, TX. You would like to research the market and find a 3-bedroom, 2-bath house in the West Austin area. You work in downtown Austin and would like to live as close to downtown as possible. Your price range is $300,000-$400,000. It is important that the house have a two-car garage and a size of at least 1200 square feet. Because of your busy schedule, you do not have much time to look at actual houses. Therefore, you must rely on comprehensive information from the websites to narrow the search down to several houses you find desirable."

Procedure

The group chose eight home-buying websites – six of them nationwide and two of them local to the Austin area. We developed a use case scenario In order to help us examine the web sites from the user's perspective.

A use case is a common method for capturing a design's functional requirements. A use case provides a scenario, usually a specific task or goal, which the user must interact with the design in order to complete. Our use case is as follows:

> A 34-year-old single-working mom with two kids is relocating to Austin. She is a senior editor for a fashion magazine with 20 years experience. Because of her busy schedule she does most of her shopping online.

Each group member first performed a timed-test for each website and recorded how long it took to find a house meeting the criteria described above. SPSS calculated the mean time (based on all group members' searches) to a successful search result for each web site that contained a listing that met the criteria listed above. When a web site could not display a suitable house listing, group members coded CNF (could not find) rather than a time measurement.

The second part of the evaluation was a formal usability test of each site. Each group member evaluated two sites. Using the questionnaires (appendix 1) and the evaluation criteria listed in the next section, each group member wrote a report evaluating his or her websites.

After completing the time-tests and usability evaluations, group members compared notes and discussed which sites needed improvement. Through consensus, the group chose the most problematic site and selected this site for redesign.

Usability Evaluation Criteria

In the field of human computer interaction, usability is defined as the ease with which a human can achieve a particular goal through using a tool or design.

Usability testing typically consists of measuring the how efficiently and effectively a group of individual users can accomplish the same task using the same tools. Since the goal of this project was to identify one site for a redesign, we opted to perform individual usability tests so we could cover a larger number of sites.

The Usability Evaluation criteria used for this assignment were two Likert evaluation scales developed by John Morkes and Jakob Nielsen at Sun Microsystems in 1997. Their online writings can be found at http://www.useit.com/papers/webwriting/.

Likert scales are psychometric scales intended to capture a subject's level of agreement with each item in a list of statements. The Likert scales used in this study is shown in Appendix A.

Design Evaluation Criteria

Design evaluation criteria consisted of three categories; information design, interface design, and interaction design.

Information design addresses the organization and presentation of data. The essence of information design is clear communication. Thus, an evaluation from an information design standpoint seeks to measure how well the design organizes and communicates data. The notion of storytelling provides a useful metaphor for understanding information design.

Interaction design addresses the ways in which a design either assists or inhibits people from accomplishing their goals. Interaction design functions to both communicate and define the capabilities and boundaries of a design's potential. This design element can be measured by how well the design provides feedback to the user, prevents errors, and defines and communicates design capabilities. Donald Norman's conception of affordances and constraints are closely aligned with interaction design.

Interface design focuses on the user's experience. The goal of interface design is to make the design functionality as intuitive as possible. Donald Norman's conception of natural mapping expresses the idea behind effective interface design.

Each category had standard questions to guide the evaluator:

Information Design

Is the information well organized?
Are there multiple ways of accessing the information?
Is all the information there? - price, location, sq. feet, etc.
Are there many page distractions?
Does the site design inspire confidence?
Is the site easy to navigate?
Are there pictures and/or virtual tours of the houses?
How many mouse clicks did it take to find a house?
Is there a clear indication of where you are in the website?

Interaction Design

Are the results of the searches what you are looking for?
Are you able to put in an accurate price range from the pull-down menus?
Is the feedback something you can use?
Are you required to register in order to view information?
Are there map searches and are they easy to use?

Interface Design

Are you able to find regions and location from the interface?
Is the branding clear?
Is the site aesthetically pleasing?
Are there page distractions?
Does the site design inspire confidence?
Is there a clear entry point to the page?

For a more detailed description of these design evaluation criteria, please visit Nathan Shedroff's *Unified Field Theory of Design* at http://www.nathan.com/thoughts/unified/2.html, Donald Norman's *The Design of Everyday Things*, and http://en.wikipedia.org.

Procedure

The group chose eight home-buying websites – six of them nationwide and two of them local to the Austin area. During the evaluation, each group member assumed the following role:

> A 34-year-old single-working mom with two kids is relocating to Austin. She is a senior editor for a fashion magazine with 20 years experience. Because of her busy schedule she does most of her shopping online.

Each group member first performed a timed-test for each website and recorded how long it took to find a house meeting the criteria described above. When a web site could not display a suitable house listing, group members coded CNF (could not find) rather than a time measurement. In addition to reporting the time it took them to find a successful result, group members included any relevant notes that explained any design or technical issues they encountered that affected their search time.

The second part of the evaluation was a formal usability test of each site. Each group member evaluated two sites. Using the questionnaires (appendix 1) and the evaluation criteria listed in the next section, each group member wrote a report evaluating his or her websites.

After completing the time-tests and usability evaluations, group members compared notes and discussed which sites needed improvement. Through consensus, the group chose the most problematic site and selected this site for redesign.

Timed Evaluation Res # Results of Timed-Task

Website	Minutes to Complete	Comments
www.realestate.com	33.0	– task not completed. Site requires you to sign up and a real estate agent will contact you. – found a quick search which took 3 minutes to get large listing and another 30 minutes to narrow the search down to the area in which I was searching.
	CNF	It would not let me search since I entered that I was already using a real estate agent.
	3.2	It took a while to find because first I clicked on a link where it wanted me to register to get a Home Depot card. I finally backed up and found the search for houses at the bottom. After that the only problem I had was trying to figure out if the house was in the right neighborhood. I had to keep clicking on the map to see where it was located
	CNF	Said I had to register
www.realestate.yahoo.com	4.0	After finding View Results on Map- which allowed me to pick an area of Austin –
	3.3	
	1.8	Still can't search by area, so have click on map it to see if it is in West Austin and close to downtown.
	1.0	
www.remax.com	7.0	Never could refine my search to area. This site only listed the ReMax listings.
	4.1	It took me a long time because again I couldn't figure out where the house was located. I had to figure out which zip code I wanted to live in and search by zip.
	4.5	
	1.5	
www.owners.com	2.0	
	2.0	
	CNF	Did not have a listing for a house in the Westside of Austin that was close to downtown. Very limited database.
	CNF	
www.realtor.com	4.0	By way of Map finder
	0.9	Used the map search and easily was able to search only the area of Austin I was looking for.
	1.4	Realtor.com and remax.com use the same engine.
	2.0	b/c I found myself getting sucked into a virtual tour of one of the listings. The features are so cool!!
www.era.com	3.0	Awesome map search! Enjoyed using this site – time was not an issue.
	CNF	No homes available in the area
	0.8	Has a really neat map search. Shows you right on the map where there are houses for sale
	CNF	No listings that meet criteria.
www.homesbyowner.com	2.0	Simple search – not able to search by area.
	1.0	
	1.3	
	1.0	but the home seemed considerably higher
www.chrealtor.com	2.0	This is the one I think we should redesign!
	CNF	-- Warning: Invalid argument supplied for foreach() in /hsphere/local/home/adamohil/homesearchplus.com/lib/mls.php on line 671
	0.5	-Easy search engine with lots of options
	CNF	I used the Firefox browser and it didn't work. There was an error.

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These results show surprising variation considering that 4 individuals performed searches using the same criteria within the same 5-day period. In all sites, the longest search took at least twice as long as the shortest. While 4 sites yielded CNF (could not find) results from some evaluators, no site yielded more than 2 CNF results and at least 2 people were able to find successful results at each site. On each site, at least one tester found a successful result in 3.2 minutes or less.

The disparity of results suggest a clear need for further usability testing focused on how usable the site is for different types of users. Even with a relatively homogeneous group of evaluators (all education graduate students at UT), individual testers encountered very diverse results as to whether or not each person even found a successful result and how long it took them. Potential homebuyers are a large and diverse population and results of this usability testing indicate that different individuals use the site in different ways. To successfully appeal to a wide range of users, an effective redesign of each site should include search tools that are easy to use for all visitors and/or several available search tools so each user can select their most efficient and effective way to search.

Another issue this usability testing revealed is the need to test not only the real estate web site but also the interactive effect between the web browser and the web site. Evaluator #4 used Firefox and was unable to find successful results on 4 of 8 sites, while other evaluators were able to find successful results on 6, 7, or all 8 sites.

Usability Evaluation Results
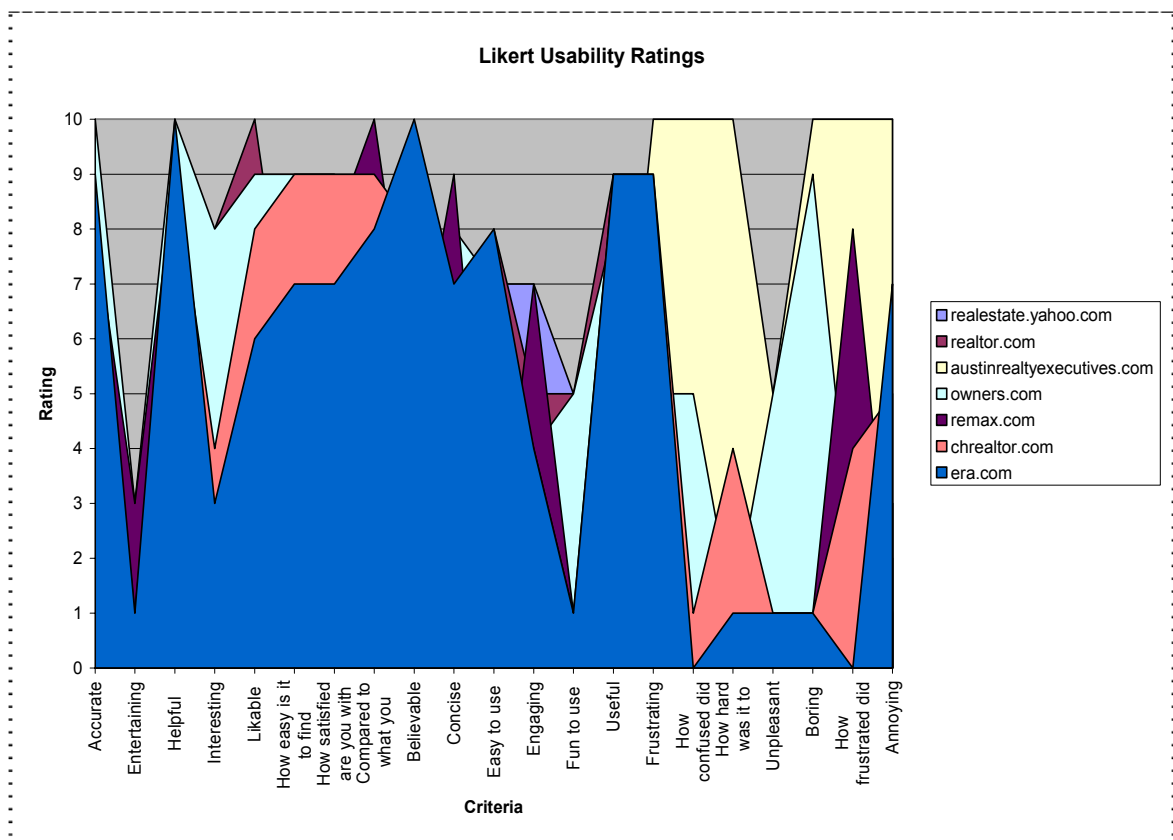
This chart shows the combined results for the usability evaluation. In order to make the chart more readable, we grouped the negative characteristics on the right, and the positive characteristics on the left. Therefore, sites that we generally liked will have a downward slope. Sites we did not like will have an upward slope. We chose to represent the data in this way because, although it is difficult to see all data points from the study simultaneously, it demonstrates the strengths and weaknesses of the sites relative to one another which formed the basis for our redesign decision.

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When analyzed, this chart depicts some interesting findings. First, the majority of the sites we examined had both good and bad characteristics. That is why we see some high ratings for both sites on both sides of the scale. This tells us that even the best sites may be lacking in some key areas, and even the worst sites may have some redeeming qualities. Another explanation would be that the criteria used were not clear to the testers.

The two notable exceptions to this trend were realtor.com, which had generally positive results, and austinrealtyexecutives.com, which had generally negative results.

Please note that not all sites were evaluated by the same evaluators. These results are based on Nielsen's Likert scale. Therefore, the final evaluations may include considerable variation across evaluators. An idea for increasing statistical reliability across results in future studies ay include asking all evaluators to evaluate all sites and averaging the results.

Design Evaluation Results

Several themes emerged through comparison between the design evaluation results. At the beginning of the project, it was out hypothesis that the majority of the sites would evaluate well from the information design standpoint since these are commercial sites intended to provide home buyers with usable information. Furthermore, all of the sites draw from the standard MLS database. However, we found that this was not the case. The comprehensiveness of listings varied widely across the sites. The amount of information for each listing also varied substantially. Not surprisingly, sites that provided more information fared better on the information design evaluations than sites that provided less. A notable exception may be realtor.com, which provides so much information that the user may feel overwhelmed or saturated. They mitigate this potential shortcoming by providing an extensive list of search options that can be used to funnel the results.

What really seemed to differentiate the sites in the eyes of the evaluators was the interaction design of these sites. This fact is corroborated for the usability tests conducted in the previous section. For example, during usability testing, austinrealtyexecutives.com rated a 10 in the "frustrating to use" category. Not surprisingly, it also ranked very poorly in the interaction design evaluation.

Finally, although the importance of the interface design was downplayed by many of the evaluators, the sites that fared poorly in interface design evaluation also tended to be the same sites that received poor marks in the usability testing. This leads us to believe that the interface design perhaps exerts a tacit yet powerful influence on the user's overall impression of a site's usability.

Redesign

The group evaluated all of the sites in order to determine which site would benefit the most from a redesign. The group chose chrealitor.com as the site. An Austin local realtor named Celeste Hill operates this site. From the results of the usability and site evaluations the following criteria was developed for the redesign:

• Clear entry point to the page
• Extract the content links and organize them into a
   global navigation
• Highlight the realtor
• Group/chunk the information into page regions
• Expand the search engine
• Show the product
•Minimal color palette - highlight the product images
• Eliminate some of the personal information
   and rewrite content based on anticipated answers
   to the user's questions

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Austin Real Estate and Homes for Sale

Celeste Hill
"Realtor Serving Austin Families"

REALTOR

phone: **512.680.0833**
email: **celeste@chrealtor.com**

· **Home**
· **Austin Homes**
· **Neighborhoods**
· **Austin Schools**
· **Area Links**
· **Home Sellers**
· **About Me**
· **My Commitment**
· **Contact Me**

Featured Listings

As an Austin real estate agent who **understands** the needs of **families** with children, I can help you find the perfect home for your family.

Before beginning my real estate career, I taught junior high and high school and was full-time mom for many years. I am very active with area **schools, camps, church, moms' clubs, little league** and other family activities in Austin.

Try my on-line **Austin Home Search** to select from over 9,000 homes for sale in Austin. I do not require any personal or contact information from you and you can view your results immediately. You may also want to try **Listing Alerts** to receive emails whenever new homes come on the market that match your criteria.

If you're not sure where to start looking, use my **Neighborhood Finder** form to get a list of neighborhoods that are right for your family. If you have **questions** about area schools or neighborhoods, please call or email me. My contact information is listed at the top of this page.

Whether you are **relocating** to the Austin area or thinking about **moving** within Austin, I can help find the right home and neighborhood for your family.

I hope to hear from you soon!

THE HUSBANDS COMPANY
Real Estate Services

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chrealtor.com

HOME   NEIGHBORHOODS   NEW LISTINGS   HOME SELLERS   CONTACT ME

PROPERTY SEARCH

Type:	House
Price Range:	$300,000 to $400,000
Area:	West
Bedrooms:	3
Bathrooms:	2
Square Feet:	1200
Home Age:	10 yrs
Planned Community:	N/A
Moving Time Frame:	6 mos.
Hill Country View:	N/A
On or Near the Lake:	yes
Miles from Downtown:	5 miles

SEARCH

Celete Hill **ABOUT ME**

Save You Time
By doing the research, making the phone calls and doing the follow-up for you, I will save your time so you can continue to focus on important things like your family and your work.

Minimize Your Stress
Studies show that buying a home can be one of the most stressful events in a person's life -- but it doesn't have to be. By making sure everything gets done when it is supposed to get done, I'll do my best to make this an exciting and enjoyable time for you and your family.

Reduce Your Risks
By utilizing my real estate experience and on-going training combined with the professional resources of The Husbands Company, a trusted Austin brokerage.

Phone: 512-680-0833
email: cleste@chrealtor.com

price reduced

new listing

great first home

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APPENDIX A – Usability Evaluation Criteria

For each word below, please indicate how well it describes the Web site.

```
               Describes                                Describes
               the site                                 the site
               very poorly                              very well

Accurate        *     *     *     *     *     *     *     *     *     *

Annoying        *     *     *     *     *     *     *     *     *     *

Entertaining    *     *     *     *     *     *     *     *     *     *

Helpful         *     *     *     *     *     *     *     *     *     *

Interesting     *     *     *     *     *     *     *     *     *     *

Likable         *     *     *     *     *     *     *     *     *     *
```

Please circle the appropriate dot for each of the following questions:

How easy is it to find specific information in this Web site?

```
       not at all easy                              very easy

       *     *     *     *     *     *     *     *     *     *
```

How satisfied are you with the site's quality of language?

```
       not at all                                      very
       satisfied                                     satisfied

       *     *     *     *     *     *     *     *     *     *
```

How frustrated did you feel while working in this site?

```
       not at all                                      very
       frustrated                                    frustrated

       *     *     *     *     *     *     *     *     *     *
```

Compared to what you expected, how quickly did the tasks go?

```
       not at all                                      very
       quickly                                        quickly
```

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```
    *     *     *     *     *     *     *     *     *     *
```

For each word below, please indicate how well it describes the Web site you have been looking at throughout the study.

```
                 Describes                              Describes
                 the site                               the site
                 very poorly                            very well

Believable       *     *     *     *     *     *     *     *     *     *

Boring           *     *     *     *     *     *     *     *     *     *

Concise          *     *     *     *     *     *     *     *     *     *

Easy to use      *     *     *     *     *     *     *     *     *     *

Engaging         *     *     *     *     *     *     *     *     *     *

Fun to use       *     *     *     *     *     *     *     *     *     *

Frustrating      *     *     *     *     *     *     *     *     *     *

Useful           *     *     *     *     *     *     *     *     *     *

Unpleasant       *     *     *     *     *     *     *     *     *     *
```

Please circle the appropriate dot for each of the following questions:

How tired do you feel right now?

```
        not at all                                   very
        tired                                        tired

        *     *     *     *     *     *     *     *     *     *
```

How easy is it to work with the text in this Web site?

```
        not at all                                   very
        easy                                         easy

        *     *     *     *     *     *     *     *     *     *
```

How hard was it to concentrate on searching for information (because of distractions)?

```
        not at all                                   very
        hard                                         hard
```

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```
    *      *      *      *      *      *      *      *      *      *
```

How complete is the site's treatment of the topic?

```
        not at all                                        very
        complete                                          complete

        *      *      *      *      *      *      *      *      *      *
```

How confused did you feel while working on this site?

```
        not at all                                        very
        confused                                          confused

        *      *      *      *      *      *      *      *      *      *
```

How confident are you that you found all the relevant information you were looking for?

```
        not at all                                        very
        confident                                         confident

        *      *      *      *      *      *      *      *      *      *
```

How much would you like to visit Nebraska?

```
        not at all                                   very much

        *      *      *      *      *      *      *      *      *      *
```

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APPENDIX B -- Evaluation Results

www.era.com

Evaluation from Questionnaire 1 and 2

Accuracy: 9
The home page makes it clear to the user that this is a site where a user can learn how to buy or sell a house or apply for a mortgage. The clear labels on the tabs make it easy for the user to understand what the site has to offer. The information seems very accurate and professional.

Annoying: 7
I would describe this site as slightly annoying. The most annoying thing I encountered was an ad for Netflix on the homepage. There was also a pop-up message on the homepage that was blocked. After turning off my pop-up stop, I looked at the pop-up. The pop-up had instructions that allow the user to select the layout they wish to view (basic or advanced). I thought this was annoying because most people use a pop-up blocker and would never see that they had this option.

Entertaining: 1
There are no elements within the site that can be described as entertaining.

Interesting: 10
ERA has many interesting tools to help the house hunter including a mortgage and rent vs. buy calculator. The photo galleries that accompany the listings were also interesting.

Likeable: 3
This is a very likeable site. The homepage is especially appealing because of the large graphic and quote; "A house is a home; when it shelters the body and comforts the soul". The tabs at the top are easy to use.

How easy is it to find specific information in this Web site?   6
Finding information in this web site is very easy. Although I was not able to find a house that matched the criteria for the task, this site has a search engine that is very easy to use. The reason I was unable to find a house was because ERA only lists their own houses and they do not currently have any available in the West Austin area that meet the set criteria. The user can search for houses via a map, zip code or general location. Users also have many options they can select to narrow their search. The web site displays results in a table that allows the user to click on a house for more information. The user only has to go through three pages from the home page to get to the results of a home search.

How satisfied are you with the site's quality of language?   7
I understood the language in this site and felt it was easily accessible to everybody. The average layperson should have no problem understanding the instructions of this site.

How frustrated did you feel while working in this site?   9
The only frustration I felt was that there were no houses matching my criteria.

Compared to what you expected, how quickly did the tasks go?   8
The task went quickly although I did not find a house matching my exact criteria.

Believable?   10
This site was believable especially because ERA is a recognized brand.

Boring?   1
No

Concise?   7

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I thought the information was very concise. The site displayed the results in a easy to read format that contained just enough information to let the user know if he or she wanted to drill down further. The website also had a nice feature in which users could customize and save their search for future use.

Easy to Use?   *8*
This site was very easy to use.

Engaging?   4
The listings were engaging because they often included photos of the house.

Fun to use?   *1*
I thought the interactive map search was very fun to use. It is the first time I have encountered this type of map feature. To search in a specific area, the user zooms in to the desired location. Then, the user can draw a circle using the mouse to target a specific location to search. I used this feature to search for houses on the west side of Austin. Although this feature was fun, it was difficult to draw the circle in the correct location and I had to try several times before I got it right.

Frustrating?   *7*
The interactive map search, although innovative, could be frustrating to many users.

Useful?   *9*
The search tools were very useful. The user has many categories that he or she can use to filter results.

Unpleasant?   *1*
No

How hard was it to concentrate on searching for information?   *1*
It was not hard.

How complete is the site's treatment of the topic?   *7*
The site only lists the homes available through ERA's listings so I was not able to search all available homes in my desired area.

Evaluation Results based upon Information, Interaction, and Interface Design

Information Design:
The ERA site has comprehensive information relating to buying and selling a house. The site presents information in an easy to use format and has an extensive search engine that allows users to customize their house search.   The results display all of the information a user expects and many house listings include virtual tours and photos. There are many details about each house, including how many bedrooms, bathrooms, square footage, location, plus descriptions of each of the rooms. The problem with this site is that their database only contains houses for sale through ERA. The user does not see all of the houses available in the selected area. There is a clear indication of where the user is in the site through the use of navigation cues. The user can also find his or her way back to the main page or search page.

Interaction Design:
The home finding tools in this site are easy and intuitive to use. The selections from the pull-down menus are exhaustive and therefore do not confuse the user. The map search, while innovative, needs refinement. I really liked this tool, but felt that some users would find it difficult. One interesting interactive tool this site has is the ability to customize and save searches for use later. I think this would be something that homebuyers would like as it often takes months to find a home.

Interface Design:
The interface is aesthetically pleasing to the eye. It has a simple homepage with easy to use tabs. The branding is clear to the user and prevalent throughout the site. It is very easy to find the different regions and locations in this website. The site looks very professional.

www.chrealtor.com

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Evaluation from Questionnaire 1 and 2

Accuracy: *8*
The sites logo "Realtor serving Austin Families" indicates that this is site about buying or selling a house in Austin. Although this is not a professional looking website, the information is clear and seems accurate.

Annoying: *5*
The site highlights and hyperlinks random words in the text. The website does not have a professional look. The most important section, the home search, is not available in the navigation buttons; it is only available through a link embedded in the text of the homepage's message. There is too much text on the front page.   On some of the pages, there is annoying clipart that would seem more natural in an amateur PowerPoint presentation.

Entertaining: *1*
This site is not entertaining.

Interesting: *9*
The results of the search engine are fast and comprehensive.

Likeable: *4*
Although the site is not very professional, I like this site. The search engine produced extensive results, which would be the main reason for using this type of site.

How easy is it to find specific information in this Web site?   *8*
It is very easy to find houses using the search engine. Especially useful is the Area drop-down menu where the user can specify which area of Austin they wish to search. The search only takes seconds and the results are extensive.

How satisfied are you with the site's quality of language?   *9*
The language not very professional or concise.

How frustrated did you feel while working in this site?   *9*
The only time I became frustrated using this site was trying to get back to the homepage from the search results. I finally figured out that the search results popped up in a new window and I needed to close it out. There was no link back to the home page from the search results page.

Compared to what you expected, how quickly did the tasks go?   *9*
The task went very quickly.

Believable?   *8*
It could be more believable if the site was more professional. I would still trust the information because this realtor wants business so it would not be in her best interest to use false information.

Boring?   *1*
No

Concise?   *6*
The wording and structure on the homepage could be more concise. I do not like the amount of text on the homepage.

Easy to Use?   *7*
This site is very easy to use

Engaging?   4
No, the site could be redesigned to be more engaging.

Fun to use?   *1*
No

Frustrating?   *4*
No

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Useful?   *9*
Yes, the results are very good.

Unpleasant?   *1*
No

How hard was it to concentrate on searching for information?   *1*
Easy to concentrate.

How complete is the site's treatment of the topic?   *8*
Many listings, more than the ERA's website. This is the reason I would use this site again.

Evaluation Results based upon Information, Interaction, and Interface Design

Information Design:
The information on the homepage is not well organized. The navigation is unclear. The most important tool, the home search, is embedded in the narrative as a hyperlink. There is a button that leads the user to the home search but it is labeled Austin Homes. The title is misleading. The information listed for each house is clear and concise but lacks the multiple photos and virtual tours of other sites. It is also easy to get lost in this website and hard to get back to the homepage.

Interaction Design:
The search engine is very good and easy to use. It does not have many features but seems to produce a lot of results. The search engine allows the user to search by neighborhood, which is helpful in a large city. The search engine does use pop-ups but there is a link to an alternative search engine page that is pop-up free. There is also an interactive form that users can fill out to ask for help in selecting a neighborhood. I thought this was a nice touch.

Interface Design:
This is not a professional website. The navigation is poor, relying on text hyperlinks on the left-hand side and hyperlinked text in the narrative section. The graphics used are not pertinent to the content of the website and are added to be cutesy. Multiple types of fonts are used and there is no consistency on how they are used. The colors are dull and uninspired. Branding in the site is confusing. I was not sure if the Realtor logo was the brand or if it was the realtor herself.

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www.ReMax.com

Evaluation from Questionnaire 1 and 2

Accuracy: *8*
The entry page relies heavily on the user knowing and understanding what Re/Max is. There is no content describing the fact that this Web site sells houses and commercial property. The homepage relies heavily on branding and only mentions real estate once in small letters.

Annoying: *2*
The site seems to display better on a PC and overlays words on the Mac – some cross-platform issues.

Entertaining: *3*
There are no elements within the site that can be described as entertaining.

Interesting: *9*
Re/Max appears to be an international real estate group.

Likeable: *2*
The colors are an all-American red, white and blue with hot air balloons and images of homey houses with gingerbread porches and welcoming facades.

How easy is it to find specific information in this Web site?   *5*

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The main page only has 3 options to choose from: Residential, Commercial and inside Re/Max, which makes it easier for the user to enter the site. Following the intended goal of this usability test, it seems that the home search engine page is fairly easy to locate. The search engine is limited, however, to city/state, bedrooms and bathrooms and price range. The user of this test needs more information on city location, garage space and square footage. Some information is easy to find, but some important information is not searchable.

How satisfied are you with the site's quality of language?   *7*
The site uses short descriptive language and is helpful to the new homebuyer with step-by-step instructions on the process of finding an agent, mortgages, listing and selling property. The site also offers tools and suggestions for moving, mortgage applications, finding office space and a glossary of terms. The language satisfaction comes from the short, non-legal language that the site offers. The content is also not extensive; none of these information pages have to be scrolled. The home listing pages have adequate information for this test but could have more descriptive information.

How frustrated did you feel while working in this site?   *8*
A little frustration on the page loading but think the site is not cross-platform compatible.

Compared to what you expected, how quickly did the tasks go?   *8*
The actual task went fairly quickly. I was able to access home listings and quickly go through images and specification on the homes. I did expect to be able to search by area and by other specific information important to my home search.

Believable?   *10*
Yes, the site was very professionally designed which gives the user a sense of confidence.

Boring?   *4*
No

Concise?   *5*
The site is not a site prepared and directed to my specific home search area so the information could have been more concise to my search.

Easy to Use?   *9*
Aside from some cross-platform issues the site was easy to use.

Engaging?   7
To some degree – the home photos were well done and allowed me to visualize the properties.

Fun to use?   *1*
No

Frustrating?   *3*
To the degree that I was not able to perform more in-depth searches.

Useful?   *7*
Yes, it gave me a good sense of the range of options.

Unpleasant?   *1*
No

How hard was it to concentrate on searching for information?   *1*
Not hard

How complete is the site's treatment of the topic?   *8*
The site only lists the homes available through Re/Max's listings so I was not able to search all available homes in my desired area.

Evaluation Results based upon Information, Interaction, and Interface Design

Information Design:

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The Re/Max site has most of the information that the user of this test is looking for. The site offers an easy to use search engine that immediately takes the user to a portion of the desired information. The information is high-level information and could be more granular. When searching for a home there are a lot of factors and options that people look for. Most of these options are not searchable on this site. I think the idea here is not to have a site that includes all the possible desired information because a big part of this site is connecting the user to a Re/Max agent.

Interaction Design:
The site is basically a search engine and that portion works well. Other aspects of the interaction come from tools that are helpful to users who are in the process of making a real estate transition. These tools are interactive in that they ask for information and give results, answers and solutions to major issues of moving and financing and purchasing homes and property. The site also allows the user the option of selecting a neighborhood using a tool which gives the option of putting in an address and searching within a mile radius. This tool does not give home listings but just maps of the area in which you are searching.

Interface Design:
The interface is playing to the American audience by use of color and imagery. The site organizes the material clearly with a main left-hand navigation area and a large white space for text. The branding is very important and is the dominant page consideration. The page is organized for user expectation and convention by using typical web page layout. There is a clear entry point into the page and the navigation is limited to relatively small selections. There are large buttons with drop-down navigation that allows the user to narrow their search. The interface could be improved by minimizing the branding bar after the homepage branding recognition. This would allow the user more space to view search results. The map graphics are not easy to read and a little unclear.

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www.owners.com

Evaluation from Questionnaire 1 and 2

Accuracy: *10*
If a user were to find this homepage they would see at the top of the page: *"The smart way to sell and buy a home…"* which would indicate to the user that this site is a place to find a home. There is also a picture of a happy couple hugging in front of a house.

Annoying: *2*
The image of the happy couple hugging in front of a house.

Entertaining: *3*
There are some featured homes on the homepage with images that draw the user into the site

Interesting: *10*
The concept – buying and selling houses without the real estate branding or push. The branding on the page is minimal.

Likeable: *8*
The concept is appealing – no commission selling and buying. Homes sold by owners

How easy is it to find specific information in this Web site?   *9*
The main page has 4 options: Sell your home, Search for Homes, Find great deals on foreclosures, how much house can you afford? This breakdown makes it easy to enter the site. This site offers a search engine that lists homes by city, state and price range.

How satisfied are you with the site's quality of language?   *9*
The site is very clear and mimics the language of some of the larger real estate sites. Some of the information is hidden behind words like "resources" and "tools and services" but there is a help page that has pretty clear explanations.

How frustrated did you feel while working in this site?   *9*
The site requires that you enter and click through 3-4 pages before you reach the task results. This was a little frustrating but understandable.

Compared to what you expected, how quickly did the tasks go?   *6*

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The task was a little time consuming to accomplish but the listings were complete. The problem with the task is that once you found one property that met your need it was a little difficult to go back and view more without entering in the same information again.

Believable?   7
Not as believable as Re/Max because of the new concept and because owners are listing their own properties, which allows those owners the opportunity to say what they want about those properties.

Boring?   5
No

Concise?   8
Yes

Easy to Use?   7
Very easy

Engaging?   4
No – this is a basic site with a basic interface

Fun to use?   5
No

Frustrating?   5
No

Useful?   8
Yes, it gave me a good sense of the range of options.

Unpleasant?   5
No

How hard was it to concentrate on searching for information?   1
Not hard

How complete is the site's treatment of the topic?   7
Very large quantity of listings, which surprised me.

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Information Design:
Once the user gets to the property listings the property descriptions are extensive and probably written by the owners, which gives some perspective on what it is like to live in this house, how far it is to the nearest market and shopping, how quiet the neighborhood is, what kind of schools you can expect.

Interaction Design:
The site offers a couple of tools - the property search engine, a mortgage rate quote and an opportunity for a user to list their own home. All of these tools were super cool but the best tool is a section of the site called Home Improvement which jumps you to another site that allows you to find local contractors in your area for all types of home improvement projects.

Interface Design:
A professional design firm has not designed the interface. The branding is simple and the layout is crude, which may work for a homebuyer who wants to find a home without going through the big guys. The colors are non-engaging and use an old beveled tab design. The interface does allow for the user to move easily through the site by using large buttons and tabs. There is no home button on the site that will take the user back to the homepage – the user has to figure out that the logo is the link/button to the homepage. The site has a consistency by using the global tab navigation on every page.

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www.austinrealtyexecutives.com

Evaluation from Questionnaire 1 and 2

Accuracy:		*5*
Annoying:		*10*
Entertaining:		*1*
Interesting:		*3*
Likeable:		*1*
How easy is it to find specific information in this Web site?	1	
How satisfied are you with the site's quality of language?		5
How frustrated did you feel while working in this site?	10	
Compared to what you expected, how quickly did the tasks go?	1	
Believable?		1
Boring?		5
Concise?		1
Easy to Use?		2
Engaging?		3

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Fun to use?	*3*
Frustrating?	*10*
Useful?	*3*
Unpleasant?	10
How hard was it to concentrate on searching for information?	3
How complete is the site's treatment of the topic?	1

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Evaluation Results based upon Information, Interaction, and Interface Design

Information Design:

This site really suffered from an information design standpoint. First and foremost, it did not contain usable information. None of the listings had pictures or street addresses. It was impossible to tell where the homes were located within Austin unless you are familiar with the zip codes or school districts.

The minimal information that each listing did provide was not on the first tab of the listing results. You had to navigate through several offers to have a realtor contact you directly before you could find the small amount of information they did provide.

One of our search requirements was a two car garage. This was not only a search option, but the garage status for the listings was not returned with the results.

Basically, this site had poor information design because it lacked usable information. The information it did have was difficult to find and incomplete.

Interaction Design:

This site was poorly designed from an Interaction design standpoint as well. When you first arrive at the site you are confronted with a number of clickable links that have nothing to do with real estate such as "CONSUMER NEW." You can click on "SEARCH AUSTIN AREA" and enter some search criteria. After doing so, it takes you to a registration page in which you are required to enter your contact info and opt out of default agreements to share your contact info with various real estate services. Once you receive your confirmation email and login to the site, you lose your search criteria and must re-enter it.

It is difficult to tell whether the results of the search are pertinent to your search criteria since the results contain minimal information. I did try to use the "Spotlighted Homes" feature, but this returned 10 homes that did not match any of my criteria.

Interface Design:

I felt that this site had a relatively amateurish look and feel. The search interface was easy to use. Its simplistic options were a failure of interaction design rather than interface design. The search results were largely masked by the front tab which reads "Photo currently unavailable." The interface was fairly standard and therefore easy to use, but it did not offer any enhancements or features that would set it apart from other sites.

Overall, I felt extremely frustrated. It is pretty clear that this site exists only to harvest leads for the real estate industry. It forces you to register with an email address and automatically selects boxes to have agents call you for more info on almost every page. This site is the real estate equivalent to phishing.

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www.realtor.com

Evaluation from Questionnaire 1 and 2

Accuracy:	8
Annoying:	3
Entertaining:	3
Interesting:	3

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Likeable:		8
How easy is it to find specific information in this Web site?	10	
How satisfied are you with the site's quality of language?		5
How frustrated did you feel while working in this site?	1	
Compared to what you expected, how quickly did the tasks go?	3	
Believable?		8
Boring?	3	
Concise?		5
Easy to Use?		8
Engaging?		5
Fun to use?		5
Frustrating?		3
Useful?	9	
Unpleasant?		3
How hard was it to concentrate on searching for information?	2	
How complete is the site's treatment of the topic?	10	

Evaluation Results based upon Information, Interaction, and Interface Design

Information Design:

After viewing austinrealtyexecutives.com, realtor.com was like a breath of fresh air. From an information design standpoint, realtor.com was comprehensive. The search results were detailed and informative. More often than not, the results included several pictures of the property, a street address, and detailed property description.

The search results also include several sorting columns that allow you to organize the search results by numerous criteria such as virtual tours, photo, price, etc. The default sorting criteria is a category called "percent match" which tells you how closely the result matches your criteria. This option organizes the information in a very usable way.

The site is extremely easy to navigate and it has a professional look and feel. There are a large number of advertisements and sponsored links, but it is organized in an unobtrusive manner that doesn't interfere with the search results.

My only criticism of realtor.com from an information design standpoint is that it gives you too much information. AI felt a bit overwhelmed by the sheer volume of data returned by the search.

Interaction Design:

Realtor.com is also very strong from an Interaction design standpoint. You are not required to register in order to view information. The interface presents you with a number of simple search criteria right on the first page of the site. There are numerous opportunities to drill down into increasingly granular search criteria, such as "GARAGE->2 CAR GARAGE."

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The interaction design is enhanced by the search engines flexibility. None of the search fields are required. Every search are also includes links for "too many" or "not enough" returns.

For the most part, this site is extremely easy to use. That is probably the defining reason that realtor.com has emerged as a best-in-class realty site.

Interface Design:

Realtor.com has an engaging interface due to its simplicity. They rely on standard internet conventions for the site layout. Every page includes a task bar on the left-hand side with check boxes for all searchable criteria. Every page also includes the number of results and the current results page.

The site itself has a utilitarian feel that I find very appealing. I use realtor.com because it provides a copious amount of detailed information with very little hassle. The interface reflects and enhances this feel. The only detracting element to the interface is the preponderance of ads.

Realestate.yahoo.com

Evaluation from Questionnaire 1 and 2

Accuracy: *5*
As far as I know the information is accurate. Because I have not gone to any of these houses myself; I cannot say that it's 100% accurate. However, the source appears to be credible.

Annoying: *3*
No, it's actually a pleasant looking site.

Entertaining: *3*
No, but that isn't its purpose, right?

Interesting: *8*
Yes, there are lots of details to include school district that you'd be living in.

Likeable: *8*
Yes, I like the site because I can browse around. If I wanted to save particular houses in my "portfolio" then I'd have to register. That feature sounds really useful.

How easy is it to find specific information in this Web site?   *8*
It's quite easy to find information. However, because I am not aware of which zip codes correspond to what parts of Austin, I had some difficulty in narrowing my search results to just West Austin.

How satisfied are you with the site's quality of language?   *5*
In the descriptions of the home, the sites language sounds just like any other house listing. "Motivated seller" means "could go cheaper than listed price". "Cozy" means "small". Etc. etc.

How frustrated did you feel while working in this site?   *7*
Again, my only frustration was with the site relying on my knowledge of zip codes to narrow the search results to particular regions within Austin (e.g., West Austin)

Compared to what you expected, how quickly did the tasks go?   *5*
It went about as quickly as I expected. The site's interface sort of reminded me of rent.com, a site I used to shop for apartments a few years back.

Believable?   *8*
Yes, I think so.

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Boring?   2
Only if you don't like house hunting.

Concise?   6
Perhaps it could be more concise. The listings are ok. The site scrolls down quite a bit and there is a large amount of "fine print" at the bottom which I found a bit strange.

Easy to Use?   7
yes

Engaging?   7
There are pictures with the listings which made the site much more engaging than had it been just text in my opinion.

Fun to use?   5
Only if you find house hunting fun, and I don't.

Frustrating?   3
No.

Useful?   7
Yes.

Unpleasant?   3
No.

How hard was it to concentrate on searching for information?   5
The search was fairly easy so little concentration was needed on my part.

How complete is the site's treatment of the topic?   7
Well, considering that on the left side bar you can click on a link to get to school profiles, and research neighborhoods, it seems like all of the major concerns I can think of that a homeowner might have are addressed in various links along the left. There is even a place to Find a Loan, figure out the worth of your current home, and get a credit report.

Evaluation Results based upon Information, Interaction, and Interface Design

Information Design:
The information for the listings seems to be comprehensive and well organized in sections. There are categories such as "General", "Exterior Comments", "Interior Comments" and "Construction" Within these categories, Construction for example, has information about A/C (e.g., central air), foundation (e.g., slab), and roof (e.g., composition shingle).

Interaction Design:
The site is mostly a search engine; however along the left side are links to other home-buying relevant information such as getting a credit report or finding the value of your home to sell. When conducting a search you can refine your search and sort by several features in ascending or descending order such as list price, age, number of bathrooms, and square footage

Interface Design:
The main page seemed a bit cluttered to me, however once I conducted a search the results page was much easier on my eyes. The color scheme is primarily blue, however because it's a yahoo site, it's very possible that the color scheme could be changed by the user (but I didn't test this out). The yahoo name was prominently displayed in the left upper corner of the main page, but once you did a search the yahoo name smaller and in the right corner (in purple) while "Texas Prudential" took over the spot on the left corner. I guess this is part of information design? However, I am not sure information design and interface design are mutually exclusive as my feelings toward the site were mixed when I was not quite certain at first as to whether I was still on a yahoo site or not (until I looked at the smaller yahoo in the right corner and looked at the URL on the browser).

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Contributions

Lydia Bierer
- Performed timed evaluation task.
- Evaluated realestate.yahoo.com.
- Contributed to final presentation and report.

Blake Gurgett
- Performed timed evaluation task.
- Evaluated chrealtor.com and ReMax.com.
- Performed data analysis on usability testing.
- Evaluated and performed the site redesign
- Created PowerPoint presentation

Jacob Liberman
- Performed timed evaluation task.
- Evaluated austinrealtyexecutives.com and realtor.com.
- Performed data analysis on usability testing.
- Summarized design evaluation results.
- Summarized usability evaluation results.
- Compiled final report.
- Compiled citations.

Jennfier Wivagg
- Performed timed evaluation task.
- Evaluated www.era.com and www.chrealtor.com.
- Worked on the task, evaluation criteria and procedures sections.
- Performed data gathering and compilation for timed-test results.
- Performed analysis for time-test results.