

**Overstock.com**

**WEBSITE STRATEGY REPORT**

**SI 658 - INFORMATION ARCHITECTURE  
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## 1. Executive Summary

This report presents the research and analysis done on Overstock.com with accompanying information architecture approaches and strategies to improve the website. The scope of this initial version of the report is limited to “Navigation”, “Search”, and “My Account” modules.

The first section of this report, *Mission and Audience*, restates the mission for the website and presents main intended audience. The following section, *Research*, reviews existing background, content, and information architecture, employing various methods to evaluate the information ecology. Problems with the current website are discussed in *Lessons Learned* before going into the details of recommended *Architectural Approaches and Strategies* for fixing them.

By utilizing the information architecture strategies we propose, and consequently making Overstock.com a more enjoyable experience for users, it’s most likely that a greater competitive advantage might be captured, increasing brand awareness and sales in turn.

## 2. Mission and Audience

The mission of Overstock.com, as it can be found on the website, can be restated as below:

Overstock.com will be an Internet leader for name brands at clearance prices. As a leader, Overstock.com will help its customers shop smarter by offering top-quality brand-name merchandise at 40-80% off, every day of the week. At Overstock.com, customers will find a great selection on their favorite brands, all backed by the warranties and service they'd expect.

Main intended audience for Overstock.com is simply “bargain shoppers”, people who look for quality brand names for cheaper prices. Overstock.com aims to provide a limited variety of specific models of a product for bargain prices, rather than trying to cover as many brand, model and price ranges as possible (unlike Amazon.com, for example). 70% of the Overstock customers are estimated to be women.

## 3. Research

### 3.1. Background Research

Overstock.com, Inc., headquartered in Salt Lake City, Utah, is an online "closeout" retailer, offering discount, brand name merchandise for sale over the Internet. The company provides its products through its Web site, [www.overstock.com](http://www.overstock.com). Overstock.com was formed as D2--Discounts Direct in 1997 and was reorganized as a C Corporation in 1998. Further, the company changed its name to Overstock.com, Inc. in 1999.

Overstock.com offers bed-and-bath goods, home and garden products, furniture, kitchenware, watches, jewelry, computers and electronics, telephones, cameras, sporting goods, and apparel

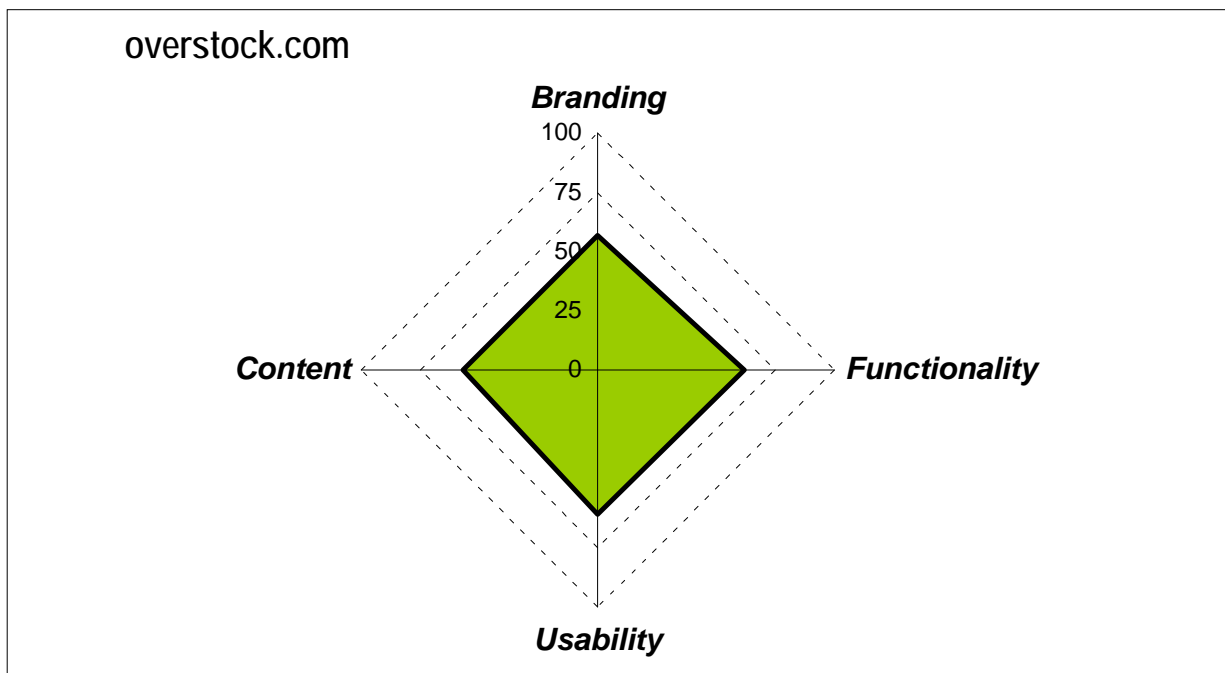
and designer accessories. The company also sells books, magazines, CDs, DVDs, videocassettes, video games; and offers limited travel services, such as flight, hotel, and rental car reservations. The company aims to provide its customers with an opportunity to shop for bargains conveniently, while offering its suppliers an alternative inventory liquidation distribution channel. It features hundreds of the world's best-known brands, including Armani, Prada, Ralph Lauren, Baume & Mercier, Dell and IBM. It ranks among the top 20 most visited online shopping sites and attracts over 10 million unique visitors per month.

### 3.2. Heuristic Evaluation

To identify major problems and opportunities for improvement, a heuristic evaluation was conducted on the website. The evaluation was based on Rubinoff's methodology of 'quantifying user experience'. This model assumes that user experience is primarily made up of four factors: branding, functionality, usability, and content, which together constitute the success of a website.

For each of these factors, a set of statements or guidelines was created, against which Overstock.com is measured. Sample statements provided by Rubinoff were used and new statements were added using Nielsen's usability heuristics. The statements in each category have the same weight, and the sum of maximum possible scores for the entire factor equals 100. The statements used in the evaluation of Overstock.com are listed in **Appendix A**. Ten statements, each having 10 points are used for branding, usability, and content. For functionality, eight statements each having 12.5 points are employed.

The scores are illustrated using a spider chart in Figure 1.



**Figure 1 Overstock.com User Experience Evaluation Scores**

As it can be seen in the chart, branding and usability got the lowest scores.

### 3.3. Strengths and Challenges

The purpose of our research was to identify not only the issues but also the strengths of the website since we need to decide what's worth keeping. First of all, the design of the website is appropriate to customer needs and business goals. Content follows real-world conventions; user oriented language is used rather than a system oriented one. Another important positive trait of the website is that users receive timely responses to their queries and submissions. The website provides users with a site map, and a site guide. More importantly, the website and applications adhere to common security and privacy standards.

Although Overstock.com has its strengths, there is still a lot of room for improvement. The most prominent issue is the overall page weight. Link density prevents users from easy navigation and graphics and text chunks do not add value to user experience for the very same reason. After getting used to density of the material on the website, the lack of contrast between the text and background is noticed. Another challenge is the mismatches between labels, headings, and content affecting navigation and usability. Beyond surface, Overstock.com has some problems with functionality such as weak support for undo/redo, weak integration with offline business processes; it has an inefficient search system and its credibility can be enhanced to a great extent.

## 4. Lessons Learned

Based on the user experience evaluation conducted, it can be said that usability and branding are the main domains for improvement of the website. As for the problems with the current architecture, it is hard to classify them since a problem in one category might also belong to another category. For example, a problem might both belong to organization system or labeling system.

For the sake of our analysis, problems are grouped into four key areas. The issues are discussed in this section whereas corresponding recommended architectural strategies are presented in the next.

### 4.1. Labeling System

Labeling systems deal with representation of information using appropriate terminology. Labels are basically the names given to chunks of content be it a part of a page, the page itself or a subsite consisting of a collection of pages.

Overstock.com has two kinds of labeling mismatch problems. First type happens between contextual navigation labels and the headings on the pages linked to that labels. This can be observed in Figure 2 by comparing ovals marked as 1 and 2. The contextual navigation label is "Recreation & Sports" whereas the heading for the page is "Sports & Toys".

The second type occurs between global navigation labels and the headings on the pages that those labels click through. This time the global navigation label, marked with oval 3 in Figure 2, is “Sporting Goods” for the same page. The users would naturally be confused in this case.

It is very important that users always know where they are and where they can go from the page they are viewing. However, these labeling problems make it hard to form a mental model of the website affecting findability severely. If users can't find a product, they definitely won't waste a lot of time looking for it. This way, labeling problems result in losing customers.

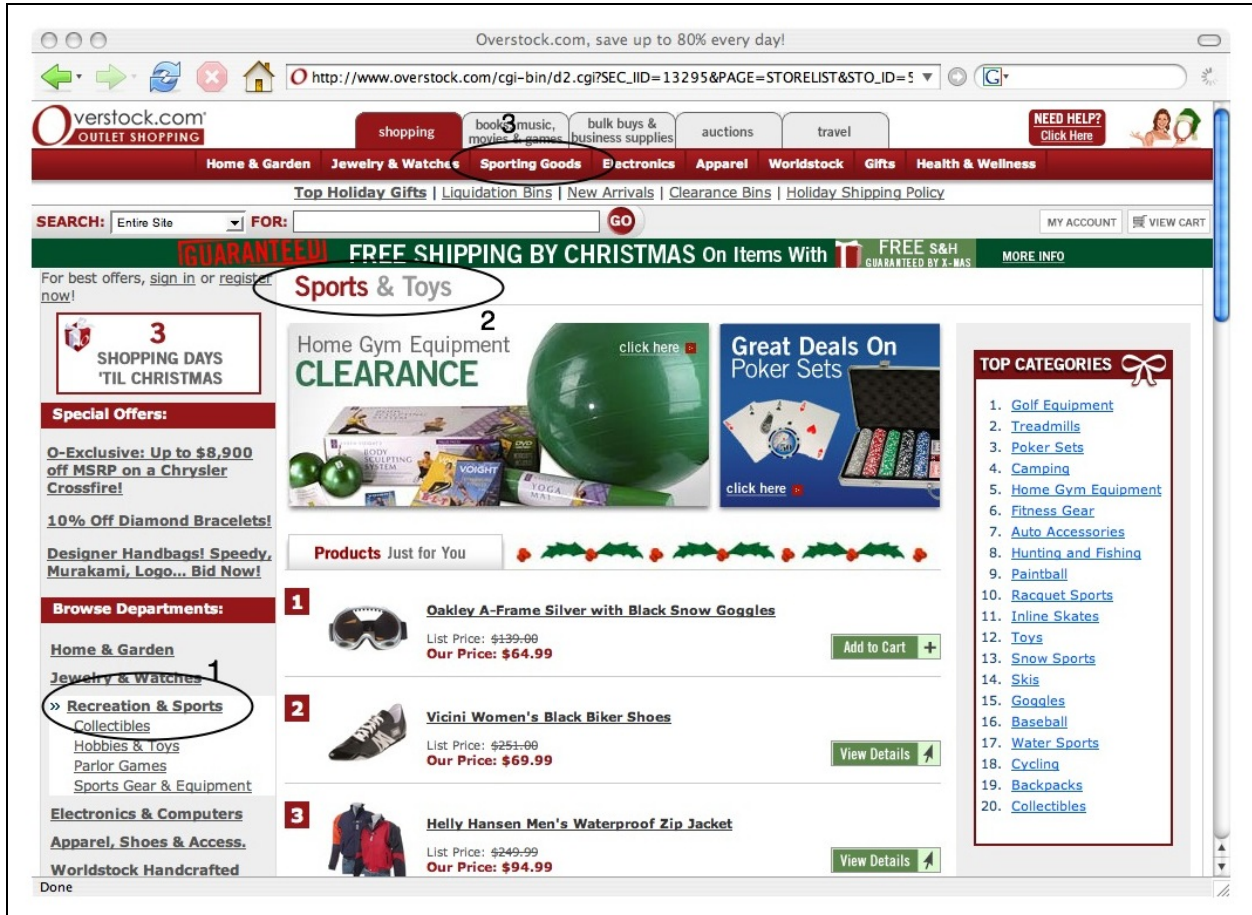


Figure 2 Labeling Mismatches

## 4.2. Functionality of the Website

The second area where problems are condensed is functionality. At Overstock.com, task progress is not always clearly communicated. Consequently, the website does not always prevent errors.

Consider the case illustrated in Figure 3. This snapshot is taken from the ‘My Account’ page. Here, the email and password fields are auto-completed by the browser. This is an example of bad interaction design. The users are not directed correctly to take the appropriate action, which in turn leads to confusion.

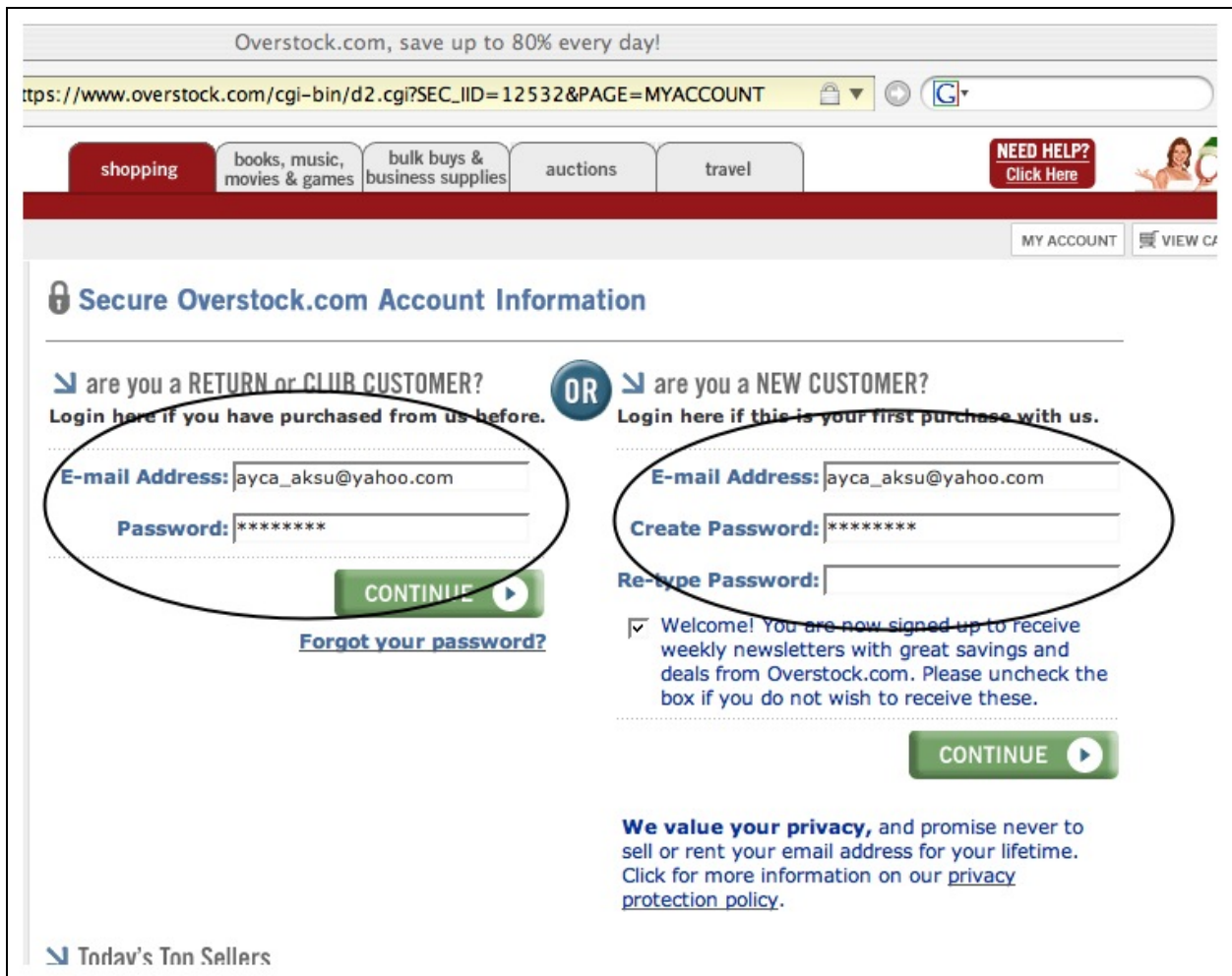


Figure 3 Functional Confusion – My Account

Another case of functional confusion can be observed in Shopping Cart module. The extract of Shopping Cart page in Figure 4 illustrates this phenomenon. If the user clicks on the circled checkbox, the item is automatically removed from the Shopping Cart. However, it is not clear that clicking on the checkbox alone would remove the item. The user might have thought it is the label “Remove”, which is actually supposed to remove the item from the shopping cart.

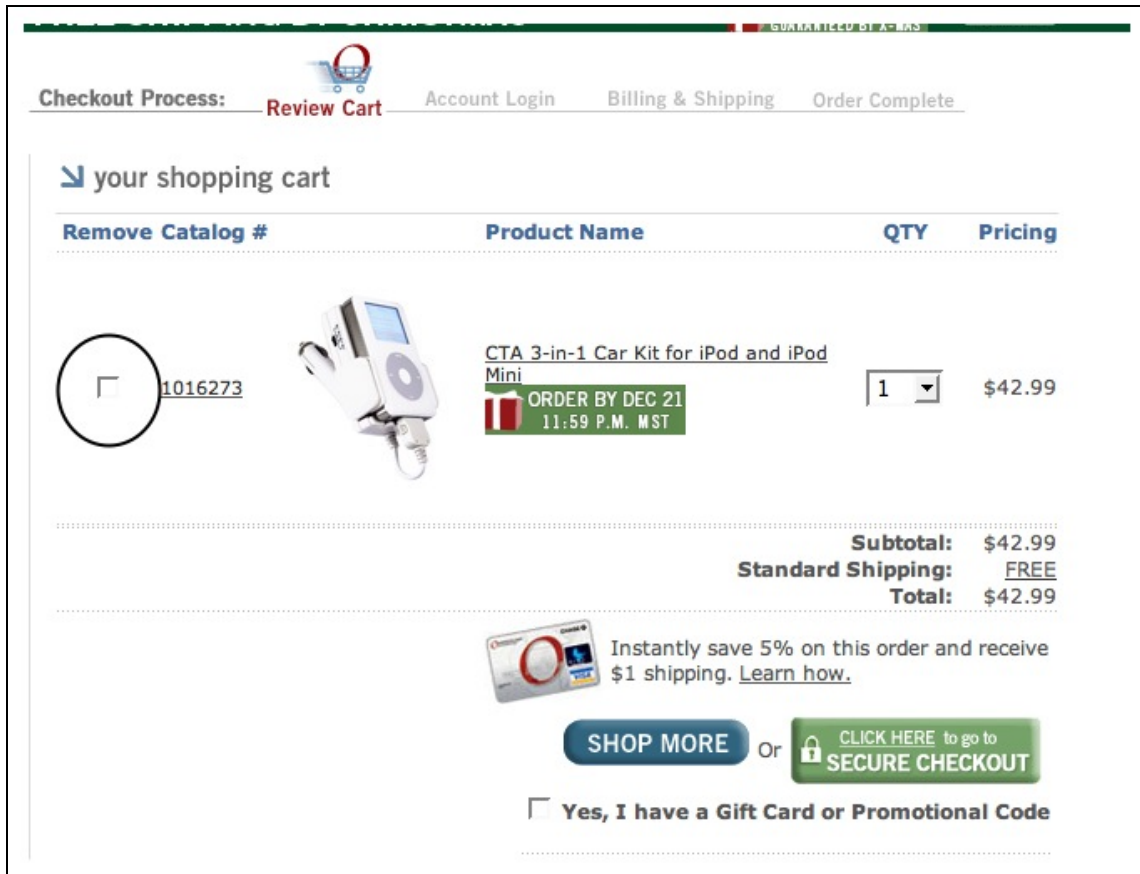


Figure 4 Functional Confusion - Shopping Cart

Since the website does not support Undo/Redo, removing the item from shopping cart is costly for the user. This is because no information is given about “Recently Viewed Items”. There’s no way except for searching for and finding the item to add it back to shopping cart.

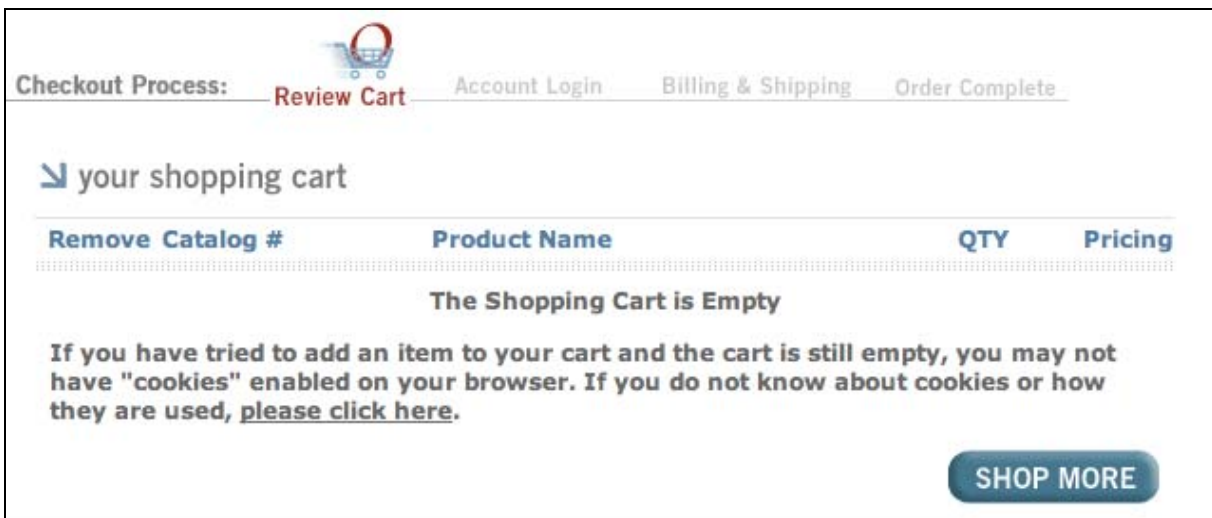


Figure 5 Message Users Get After Removing an Item From Shopping Cart

Moreover, users get the message about cookies displayed in Figure 5, after removing an item from shopping cart, even if they are enabled. This is another example of not communicating effectively.

### 4.3. Search System

Search systems are essential parts of websites. As more and more people are getting used to search engines, their expectations of search systems in websites are increasing. For this reason, the issues with Overstock.com’s search system are of extreme importance.

Overstock.com has issues with both the quality and presentation of search results. The results are not fetched considering their relevance. Instead some kind of full text (general) search is used resulting in indifference between better and worse matches. For example, if a search query corresponds to the name of a category, it should get a higher rank among search results. This is unfortunately not the case in Overstock.com. Figure 6 illustrates such a case: search results for “notebook”. Here, the recommended product is a notebook case instead of a notebook. Yet, having a higher profit margin, recommending a notebook should be preferred to recommending its case.

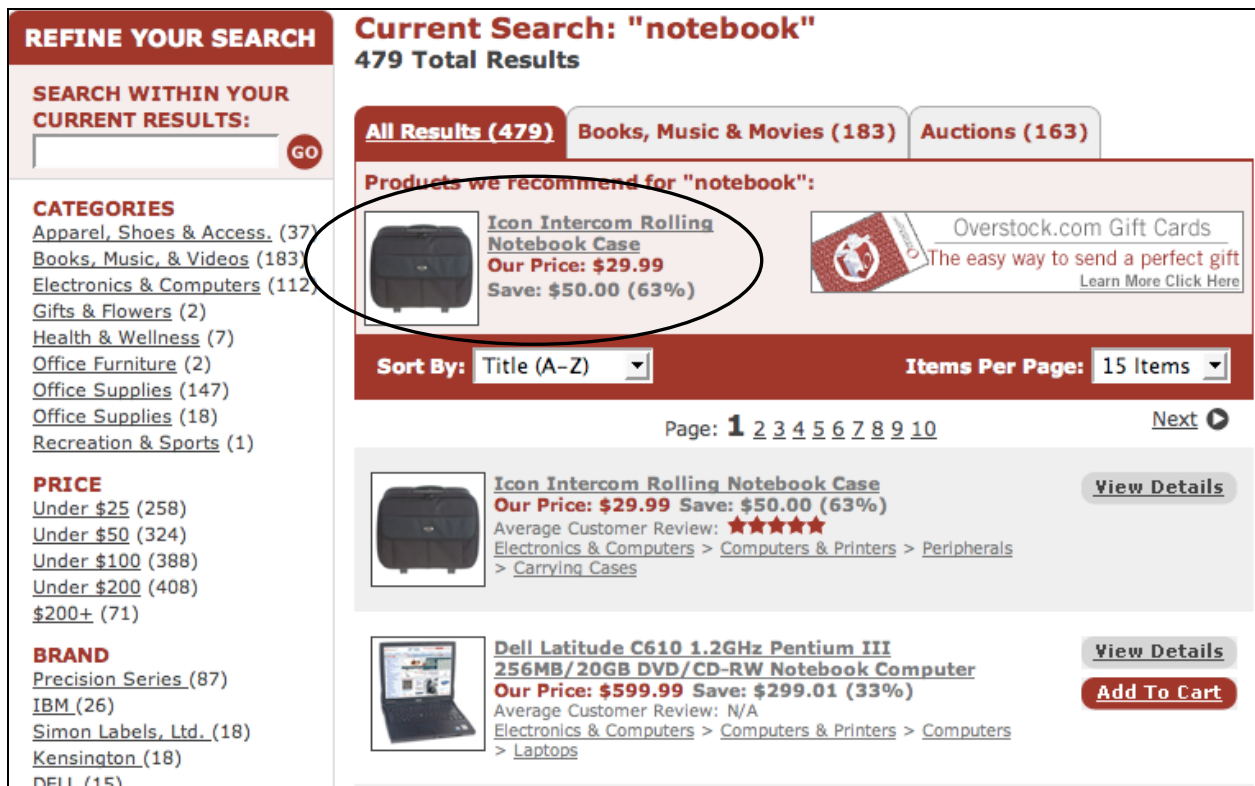


Figure 6 Search Results for "notebook"

Relevance is not used when displaying search results either. First of all, there is no “Sort by Relevance” functionality. The only available options for sorting search results are title (alphabetically) and price. In addition, search by title is problematic. When the results are

initially presented, each category is sorted in itself but the results from different categories are intermixed. When the user sorts them by title they are sorted alphabetically. But, this time the precision (of topmost items) decrease significantly.

Rather than being counterparts, searching and browsing are two completely different subsystems in Overstock.com. Users cannot browse through categories that they find by searching. When they try to do that, the same search query is executed in corresponding subcategory. Users cannot exit search mode if they click on the categories circled in Figure 7. In the same way, they cannot search within the subcategories they find through browsing. Only searching the entire website or top-level categories are supported.

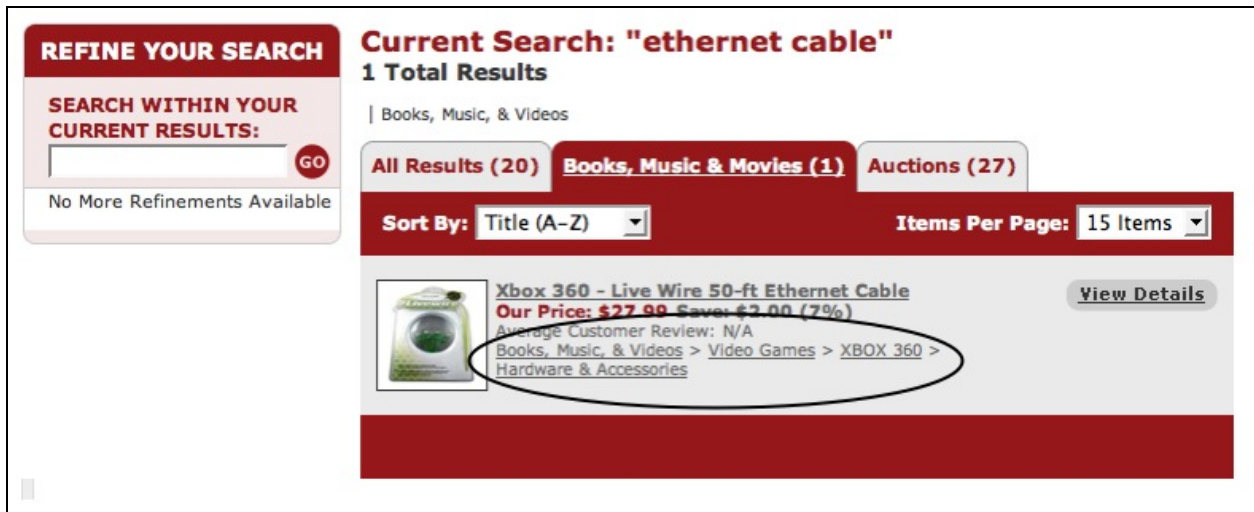


Figure 7 Sample Search Results

#### 4.4. Credibility of the Website

In today’s information world, due to increasing fraud and low-quality information, being usable is not sufficient for success of a website. Websites should also be designed with credibility in mind (Fogg, 2003). Credibility issues are also important because of their effects on brand recognition. There is no well-defined methodology for evaluating credibility of a website. Instead, we are presented with different perspectives on how to assess credibility.

According to Fogg (2002), there are four types of credibility. Presumed credibility is formed as a result of general assumptions in the mind of the perceiver. Surface credibility is derived from simple inspection or initial firsthand experience. It’s worth noting that web surfers quickly leave sites that lack surface credibility. Surface credibility can be affected by visual design, tone of the text, domain name, and surface traits like layout and density of ads. Reputed credibility is the credibility formed by third-party endorsements, reports, or referrals as the name implies. Earned credibility develops as a result of firsthand experience that extends over time.

In the light of previous discussion, a couple of credibility issues can be identified for the website.

One important credibility issue with the website is that its URL does not match the domain name. "http://overstock.com" redirects to a CGI page after giving the message that the domain name is invalid. This decreases surface credibility. This is really important and should be corrected as soon as possible. People might think that there is a phishing attempt going on.



Figure 8 Domain Name Mismatch

Another surface credibility issue has to do with the page weight. In order to positively affect credibility, the web site must provide a pleasant visual design. Figure 9 displays main page of

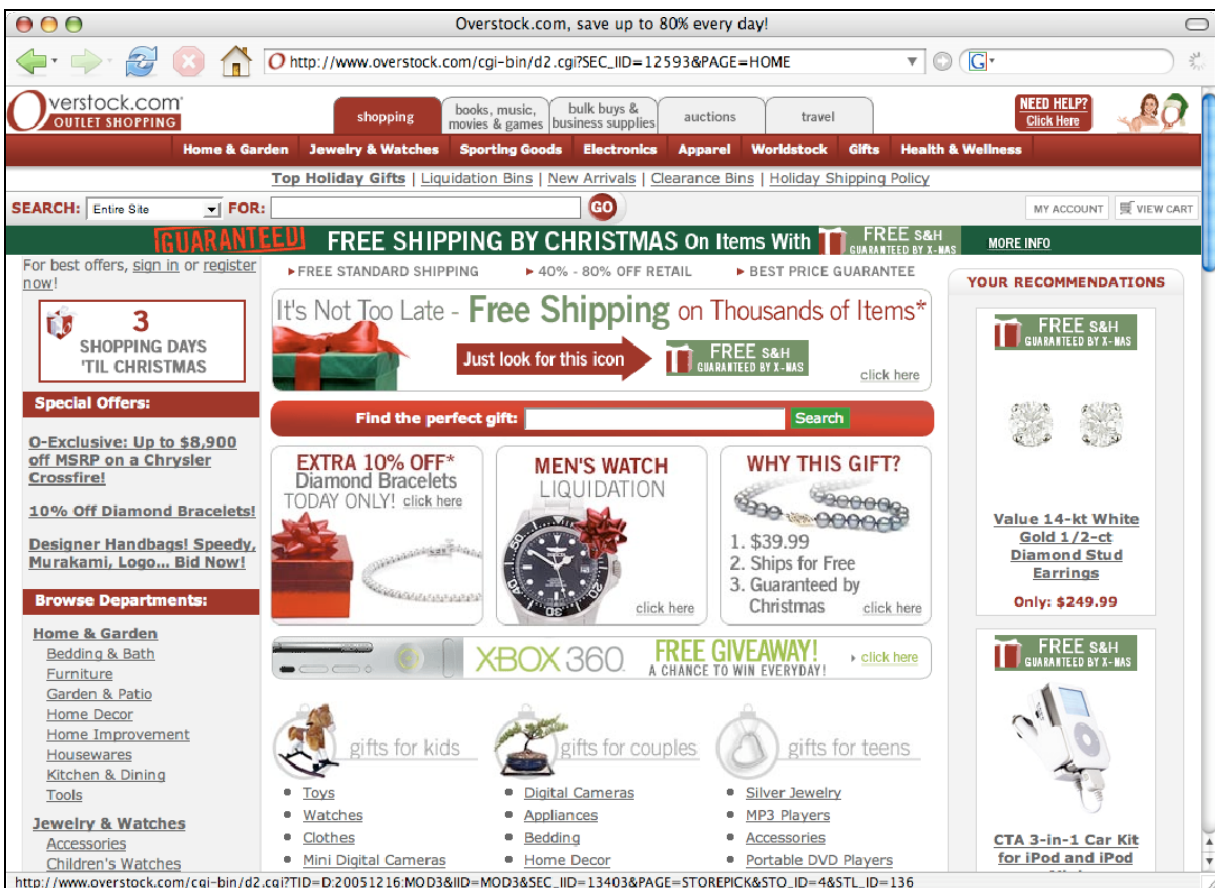


Figure 9 Overstock.com main page

Overstock.com. As it can be seen in this screenshot, the website tries to capture all kinds of customers, trying to please everyone. Too much visual material is crammed into the main page, causing visual clutter.

Final surface credibility issue is about accessibility. Text font of the website does not have enough contrast with background to read comfortably. This might be a problem for visually impaired users. Moreover, the website does not comply with accessibility requirements of W3C by not providing the text equivalents for all images.

Discussion of presumed credibility and reputed credibility falls outside the scope of this report. But Overstock.com has a big earned credibility issue, also affecting the offline presence of the website: incomplete contact information. Only toll-free phone number is listed as the contact information on the website. No fax number or mailing address is given. This causes weak support of offline business processes by online functions. For example, the only way to return an item is through the website and the process is initiated by filling out a form online. This poor representation of the website's offline presence costs the website its credibility since people would be less inclined to believe that there's a real organization behind the website.

## 5. Architectural Strategies and Approaches

This section includes brief explanations of the recommended architectural strategies and approaches. A couple of screenshots are used to illustrate the recommendations, where appropriate. The recommendations are presented in the same order issues are presented in *Lessons Learned* section. Note that secondary recommendations can be considered as optional.

### 5.1. Labeling System

The most important thing to keep in mind about the labeling system is the need to be consistent. Consistency is important for the reasons discussed above and for having an easy-to-use, easy-to-learn website.

The labels in global navigation bar, contextual navigation bar, and content headings should be updated in a way that they match. A secondary recommendation is to do a minor reorganization in subcategories to reassure hierarchical relationship between them and corresponding labels.

### 5.2. Functionality of the Website

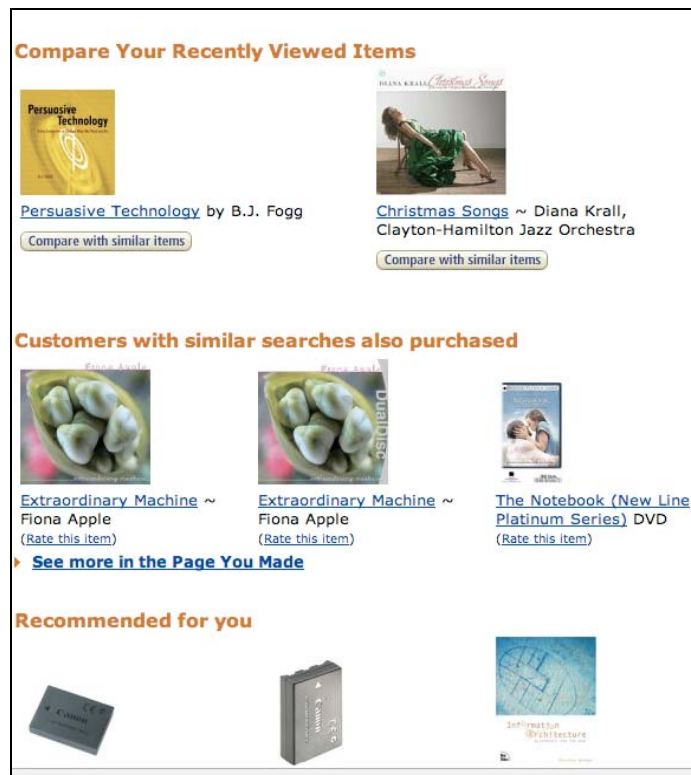
In order to prevent functional confusions and errors, users should be guided better using hints, success pages, email updates. Errors are inevitable in any system. The important thing is to offer constructive solutions when they happen.

Figure 10 shows the login screen of Amazon.com. This is a good example of interaction design. New customers and existing customers are clearly distinguished. Overstock.com needs to use such an exhaustive and mutually exclusive method for distinguishing users.



**Figure 10 Amazon.com Login Screen**

One recommendation is to provide users with some kind of ‘The Page You Made’ functionality like Amazon.com does.



**Figure 11 Amazon.com's 'The Page You Made ' Functionality**

By adding this feature, the users are provided with shortcuts to find an item that they lose track of. Moreover constantly reminding the items might increase the possibility that users buy it.

### 5.3. Search System

A good search system must support all kinds of information seekers, people searching for everything, for a few good things, and for the right thing. It must also support different information seeking behaviors such as berry picking and pearl-growing. In berry picking model, user picks bits of information (“berries”) along the iterative, complex and multiple-path search. A website must provide ways of moving easily from search to browse and back again to support this type of information behavior. On the other hand, users that have the pearl-growing approach start with a few good documents and try to get more documents like them (Rosenfeld & Morville, 2002). In order to meet this type of need, a search system must provide “Similar Searches” functionality. Currently, Overstock.com has none of the features described here as elaborated in *Lessons Learned* section. It’s recommended that they be implemented.

One important recommendation is to utilize a better search algorithm to fetch better matches to search queries. This might decrease recall, increase precision and eventually a better search system might be reached to.

An effective searching experience requires not just a good search engine, but also successful presentation of search results. At Overstock.com, search results can only be sorted by title or price. Indexing results by featured items, bestselling items, and average customer review, and letting the users sort search results by these fields are recommended.

### 5.4. Credibility of the Website

It is recommended that issues affecting surface credibility be solved as soon as possible. Most importantly, there shouldn’t be any problem about the association between the domain name and the website URL.

By enhancing the contrast between the font of the text and the background and adding the necessary components such as the special tags or attributes to the website, accessibility issues should be resolved.

Final recommendation for enhancing the surface credibility of the website is reducing the density of text and graphics on the website. Keep in mind that less is more in the case of text and graphics on a website.

Before making recommendations about enhancing earned credibility, it might be useful to elaborate on how people assess the credibility of online content. According to Prominence-Interpretation Theory proposed by Fogg (2003), two things happen when people assess the credibility of websites:

1. The user notices something (this is prominence).
2. The user makes a judgment about it (this is interpretation).

If one or other does not happen, then there is no credibility assessment. Credibility of an element then can be formulated as (Prominence \* Interpretation). The process of noticing prominent elements and interpreting them is iterative with constraints imposed on it such as running out of time. It follows that, credibility might increase or decrease over time.

The implications of this theory for Overstock.com is that, in order to assess the credibility, first related elements of the website such as the contact information or the form that must be filled in to return an item must be noticed by the user. This information must be presented in a suitable way to facilitate intended interpretation by the users or at least different potential interpretations by multiple users must be taken into account.

Currently, the contact information on the website consists of a toll-free phone number. And this information is presented in “About Overstock.com” page. In order to make it more prominent, the contact information must be given on the main page, preferably in the page footer. It should include the fax and phone number of company headquarters to increase interpretation . Figure 12 shows an extract from Bluefly.com’s “Contact Us” page. Fax and phone numbers are presented.

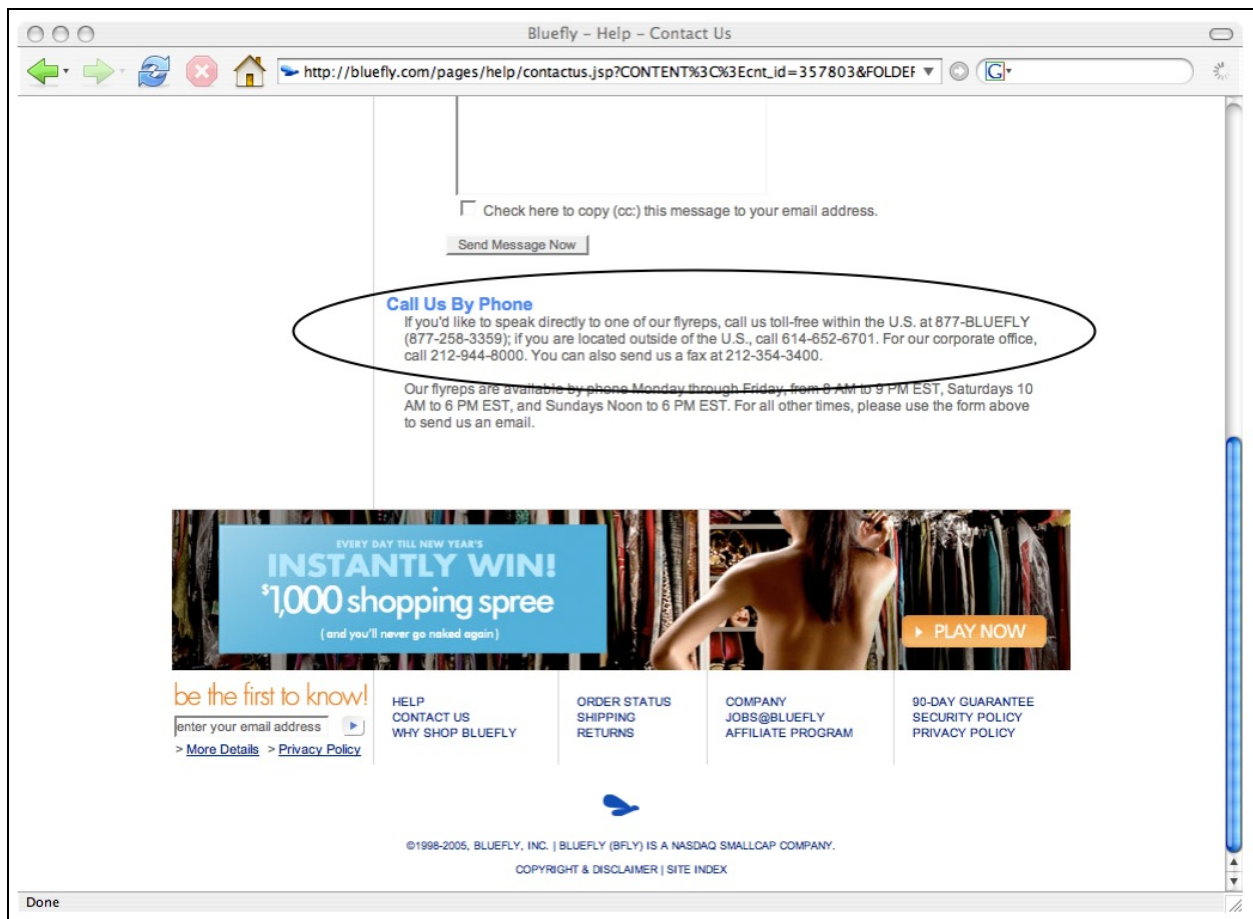


Figure 12 Extract of Bluefly.com 'Contact Us' Page

Putting physical address on the website shows that there is a real organization behind it. This is also recommended since it might enhance earned credibility to a great extent. But since this involves a decision at the level of business model, it is a secondary recommendation.

## 6. Conclusions

The conclusions reached in previous sections can be summarized as follows:

- Labeling mismatches causes frustration. The inconsistencies among different labels should be resolved. Reorganization of content can be considered in order to reach to a more hierarchical structure.
- Task progress is not always clearly communicated, hence website does not prevent errors sometimes. Users should be guided better.
- Search system is extremely important and it must be improved to increase precision and support different type of users and information seeking behaviors.
- Simple improvements to increase credibility must be made ASAP like resolving the domain name mismatch problem.
- In order to enhance credibility, contact information such as company headquarters fax and phone numbers should be published on the web page. This would also help improve offline presence of Overstock.com.
- The support for offline business processes is not prominent enough. In order to improve offline identity of Overstock.com, these processes, such as returning an item, should be supported better by the website functions.

## 7. References

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## Appendix A

### Branding

The website provides visitors with an engaging and memorable experience  
The visual impact of the site is consistent with the brand identity  
Graphics, Collaterals and Multimedia add value to the experience  
The website delivers on the perceived promise of the brand  
The website leverages the capabilities of the medium to enhance or extend the brand  
The design is consistent across different pages  
Company logo is displayed at the top of each page  
The website has an "About Us" page containing contact information  
The website has a favicon and a catch phrase that summarizes its business  
The website uses wide and easy to read fonts and a high contrasting background to aid in readability

### Functionality

Users receive timely responses to their queries / submissions  
Task progress is clearly communicated (e.g., success pages or email updates)  
The website and applications adhere to common security and privacy standards  
Online functions are integrated with offline business processes  
The website has "emergency exits" (supports undo and redo)  
Constructive solutions are suggested to errors  
The website has efficient search functionality  
The website is loaded in a short time

### Usability

The website prevents errors and helps the user recover from them  
Overall page weight optimized for main target audience  
The website helps its visitors accomplish common goals and tasks  
The website adheres to its own consistency and standards  
Help documentation is provided and easy to use  
Error messages are presented in plain and natural language (no codes)  
The website provides users with site map, site guide and/or site index  
The users know where they are and where they can go from that page  
The users can find what they are looking for easily  
The website provides content for users with disabilities

### Content

Link density provides clarity and easy navigation  
Content structured in a way that facilitates the attainment of user goals  
Content is up-to-date and accurate  
Content is appropriate to customer needs and business goals

Content follows real-world conventions (user oriented language rather than system oriented)  
Instructions for use of the system should be visible or easily retrievable  
The website avoids information overload  
Parts of the website do not contain information which is irrelevant or rarely needed  
The website uses meaningful headlines and sub-headlines  
The website uses consistent wording in content, buttons and titles