

Introduction

“Web sales’ boom could leave Amazon behind.” – *Wall Street Journal, January 21, 2005*

With all the news about growth and increased competition in the e-commerce space, one might expect that improvements in the user experience of online retail sites are at least partially responsible. The truth is that the majority of today’s online retailers fail to effectively support the evolving needs of their users.

Aside from superficial design facelifts, the only changes that have occurred on many retail sites over the past few years are simply the adoption of new features implemented by direct competitors (no matter how questionable the value) and a continued trend towards imitating the user experience of a handful of sites that are perceived to be successfully meeting users’ needs (e.g. Amazon.com). As a result, online retailers are developing sites that are increasingly templated and uniform instead of innovative, usable, successful experiences that are based on a real understanding of user behavior. In today’s online retail environment mediocrity thrives, not innovation.

From books to clothes to cars – virtually every product is being sold online in the same way. But users don’t think about all products in the same way. To take advantage of opportunities in e-commerce and be successful, online retailers will need to address this by offering:

1. Exceptional user experiences that based on **deep insight into user behavior**
2. **Strong taxonomy and metadata solutions** to support the users in the decision-making process
3. **Effective ways to display products** so that user needs are met

Those of our clients who begin with an investment in a deeper understanding of user behavior can lay claim to e-commerce sites with the most innovative and compelling user experiences. They reap the greatest measure of ROI from their sites, be it a lift in brand awareness or improved conversion rates. This deep insight into user behavior begins with rigorous user research.

Developing Insight

To create a truly innovative online user experience, a real understanding of user behavior must inform and drive the site design. A robust user research process involves three basic steps: *data collection*, *persona development*, and *user testing*. The more rigorous the data collection methodologies employed, the deeper the understanding.

→ Data Collection

There are many methodologies for collecting data on your user group. While many online retailers employ at least one of the fundamental user research methodologies in their approach to data collection, only those who go beyond the basics in order to gain more insight into user behavior will be able to truly innovate. In-depth study of the daily lives of current and potential customers provides the immersive learning necessary to gain actionable user insight. *Contextual Interviews, Camera Studies, Shadowing* and other ethnographic research activities can provide the depth of insight that lies beneath exceptional user experience design.

→ Persona Development

After data is collected, personas are developed to organize and further develop the insights that have been gathered to serve as the basis for user experience design activities. Personas position the user at the center of the design process, facilitate more real-world decision making, and articulate what user needs the site must address. Many companies mistakenly develop personas that focus heavily on user demographics and background details instead of on more important areas like user needs and key scenarios. At Avenue A | Razorfish, we use personas to demonstrate true insight into user behavior which typically map to three major types: *Consumer Life Stage, Customer Life Cycle, and Shopping Mode*.

→ Collaborative Design

A collaborative design whereby real customers are brought into the earliest phases of the design process serves to validate and refine the user experience. *Paper Prototyping, Concept Testing* and *Functional Prototype Testing* are valuable tools for determining how successful an experience in progress will be in meeting the needs of users. Additionally, *Live Site Testing, A/B testing, Clickstream Analysis, and Eye-Tracking Studies* all help get at depth of insight that lies beneath exceptional user experience design.

Basic User Research Methodologies

Telephone Interviews

Allow for in-depth interview across geographic regions when travel is not possible

Card Sorting

Captures customer feedback about categorization and labeling

Focus Groups

Solicit responses and preferences from larger samples of customers

Surveys

Captures quantitative data about usage and preferences

Advanced User Research Methodologies

Contextual Interviews - Conducted in store environments or at home to capture information about activities, attitudes, and needs

Camera Studies - Allows participants to interpret and respond to their environment and activities when we can't be there to observe

Shadowing - Allows for observation of people as they complete real tasks

Taxonomy and Metadata

A strong taxonomy and metadata solution are crucial to successful navigation, search and ultimately, the site's overall usability. The manner in which site content is organized and accessible has everything to do with its success yet is often neglected in the race for feature dominance. For instance, while Amazon.com's product offering is virtually unrivaled in breadth, they do not provide the necessary decision-making tools to allow users to narrow down their product selections in a useful and relevant way. They offer only limited sorting and filtering functionality when displaying large products sets, a key point in a user's decision-making process. A strong taxonomy and metadata solution makes these tools that could markedly improve this process very easy to provide.

Guided Navigation

The need to allow users to narrow search results has become increasingly top of mind for many of our clients and has given rise to increased demand for successful guided navigation solutions. Guided navigation, or a navigation system which leverages a faceted taxonomy, is most useful when browsing large sets of information for which simple sorting does not suffice. A guided navigation solution can also be useful not only for the user experience improvements it can provide, but for the targeted information it provides to site owners.

Utilizing a guided navigation system presents its own challenges, however. Simply using a using a guided navigation solution does not solve anything on its own. Presentation is extremely important, and user research is necessary to determine the appropriate sets of criteria to display. A guided navigation is only as successful as the metadata structure that supports it. It is crucial that site content is properly tagged and that information is appropriately displayed.

Some typical flaws in e-commerce guided navigations include:

- *Complicated or limited categories*—forcing users to sort either by categories that are not relevant to the product selection or only displaying a small number of categories that don't let the user narrow down their options enough
- *Truncated lists of attributes*—showing too few attributes or options per category and forcing a user to perform extra clicks to find the criteria they need
- *Complex interaction*—using unclear interaction techniques
- *Hidden functionality*—not clearly displaying options to the user upfront
- *Poor page layout*—displaying navigation in ways that make the page more confusing, not less

In the example to the right of a redesign of a retailer site, it was important to test whether or not site visitors would understand how to use a guided navigation and determine how it might affect their perception of the brand. And while even heavy internet users did not recall seeing a similar solution before, usability testing found that the system was extremely learnable and users had no difficulty figuring out how to navigate using it. Not only did they rate their experience with the interface highly, the tests indicated that the ease of use created an overwhelmingly positive impression of the brand.

Sample Metadata Structures

- Televisions**
 - Product Category (Electronics > Home Video >)
 - Enclosure Type (Flat Panel, Projection)
 - Manufacturer (Sony, Phillips)
 - Screen Size (22", 27")
 - Price (Under \$300, Under \$500)
 - Aspect Ratio (16:9, 4:3)
 - Display Technology (DLP, LCD, Plasma)
 - Video Inputs (RCA, DVI, HDMI)
- Cross Product Facets**
 - Availability (In-Stock, Back Order)
 - Assets (With Photos, Multiple Views)
 - Time (New, Just Added)
 - Editorial (Best Value, Critic's Pick)
- Sweaters**
 - Size (M, L)
 - Type (V-Neck, Crew Neck)
 - Fabric (Cashmere, Cotton)
 - Color (Red, Black)
 - Brand (J. Crew, Gap)
 - Price (Under \$30, Under \$50)
 - Season (Winter, Summer)



Static navigation appears on the left throughout the site

Guided navigation is displayed on the right, keeping it clear of the global navigation

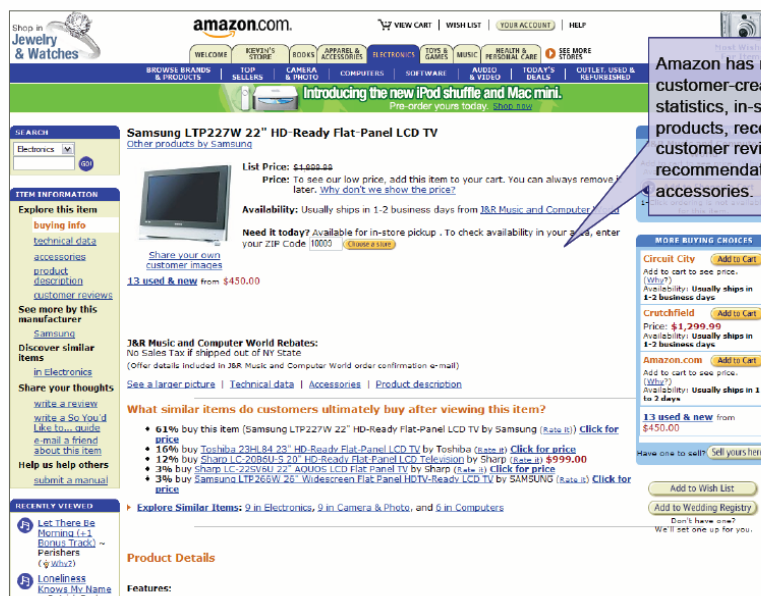
Many categories can be displayed at once

If properly integrated, a guided navigation leveraging a solid metadata framework can be an extremely effective tool to aid the user in making a purchase decision. We expect guided navigation solution will soon become a common solution on best practices e-commerce sites.

Product Display

The product page is perhaps the most important page on any e-commerce site. It must serve as both an inviting gateway to the rest of the site and provide the user access to any information they may need to make a decision. Arrival at the product page constitutes a key point in the purchase decision process. A successful product page should:

- *Use succinct benefit-oriented copy.* Long paragraphs should be avoided in favor of succinct, easy-to-digest chunks of information.
- *Provide navigational context for the rest of the site.* Users should have clear navigation options to other products in the category and the rest of the site.
- *Promote only relevant, related products.* Just because a product is in the same category doesn't mean it's relevant. Leverage a strong metadata system to ensure that products being cross-sold or up-sold have a clear, relevant connection to the product the user is evaluating.
- *Provide features that will assist users in the decision making process.* Too many features on the product page can clutter the experience. It's important that the page be focused on the features that most effectively facilitate purchase decisions



Conclusion

At Avenue A | Razorfish, we believe that e-commerce site design will move away from the current trend of templated standardized site experiences. As we analyze the increased user participation in the online retail experiences through affiliate programs, social networking, open site APIs, more effective comparison shopping tools, and customer editorializing, our insight into user behavior will continue to deepen, allowing us to create online shopping experiences that are increasingly unique. Understanding how people shop for different products in different ways will lead to new experiences mapped to specific product types. In the future, users will see few similarities between shopping for a car online and buying a book from a favorite online retailer

About the Author

As an Experience Lead at Avenue A | Razorfish, Kevin Kearney is responsible for guiding the development of usable and successful user experiences for Fortune 500 companies. With over 5 years experience in Information Architecture, Kevin has created online solutions for companies like Ford Motor Company, Ann Taylor, Verizon, GE, Time Warner and Charles Schwab. Prior to joining Avenue A | Razorfish, Kevin worked in account management at Lowe Worldwide where his clients included GMC, Air France, and LEGO.

About Avenue A | Razorfish

Avenue A | Razorfish (www.avenuea-razorfish.com) is the largest independent interactive services firm and an operating unit of Seattle-based aQuantive, Inc. (NASDAQ: AQNT), a digital marketing services and technology company. Avenue A | Razorfish solutions are entrenched in deep technology, rigorous analytics and a rich understanding of customer needs, including award-winning web media & creative, search marketing services, email marketing/eCRM, and world-class creative, design and implementation of customer websites and intranets/extranets. Avenue A | Razorfish has offices in 12 US cities and is headquartered in Seattle, Washington. Clients include AstraZeneca, Best Buy, Kraft, Microsoft/MSN, WeightWatchers.com, and Wells Fargo.

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