

Lesson 5:

Site Usability

Objectives

By the end of this lesson, you will be able to:

- ✦ 1.1.2: Create an e-commerce site plan (includes determining expected traffic rates, conducting usability tests, determining scalability options).
- ✦ 1.1.3: Analyze audience usability principles and apply them to a Web site.
- ✦ 1.1.4: Analyze the results of usability tests and implement changes.
- ✦ 1.1.5: Apply screen-flow principles to Web pages.
- ✦ 1.1.6: Evaluate click patterns and implement changes.
- ✦ 3.3.6: Obtain browser and operating-system use patterns.

Pre-Assessment Questions

1. What are the two types of click patterns?
 - a. Random-click and usability-click
 - b. Controlled-click and random-click
 - c. Controlled-click and usability-click
 - d. Random-click and registration-click

2. Which of the following usability testing mechanisms can be completed only after you have built the Web site?
 - a. Paper-based walkthroughs
 - b. Focus groups
 - c. Persona-based role playing
 - d. Live usability testing

3. Does a high-level Web page provide better usability if it has less content or more content? Why?

Overview of Usability Issues

usability

A measure of the effectiveness users experience in a Web site visit.

OBJECTIVE:

1.1.3: Audience usability principles

Enabling a Web site to reach its full potential requires more than just the latest e-commerce tools. The site must be carefully planned and strategically designed.

A poorly designed Web site that uses the latest technology will not be as successful as a site that has better design and less technology. The site's effectiveness is referred to as **usability**. The theory behind usability on the Web is to make the site as effective, efficient and trouble-free as possible. The less users have to think about the details of what they are doing, the more effective the site is.

When a Web site provides high usability, the results will be increased customer purchases, leading to better customer retention, improving business productivity and reducing services costs. Brand loyalty can also result from a highly usable site.

For e-commerce, the goals for effective usability correspond to users' progression through the site. These goals are:

1. To have users visit the site. When they arrive, usability becomes important.
2. To allow users to search for a product or service. When users have found what they are looking for, they usually want to take the next step.
3. To allow site visitors to learn as much as possible. Then, assuming their purchasing needs are met (product availability, complete product information, acceptable pricing and delivery terms), they will move to the final step.
4. To encourage site visitors to purchase the product or service.

You will study these four steps one at a time as they relate to usability.

1. Visiting the site

landing point

The first page a user visits on a Web site.

The visitor's arrival usually results from product or site promotion. The promotion might be a banner ad or other online advertisement, a listing in a search engine, and e-mail that includes a link to the site, a referral from another customer or an offline marketing campaign. The first page that appears when a user enters the site is known as the **landing point**. Depending on the reason the user is accessing your site, and whether or not the user has visited the site before, the user's landing point might be different.

2. Locating a product or service

A user generally visits a site with a goal in mind. A user must be able to navigate the interface and reach the goal before becoming frustrated and leaving the site. The more intuitive this navigation, the more likely that the user will find what he or she is looking for. A Web site allows a user to locate a product or service:

- By navigating a hierarchy of hyperlinks.
- By using a search engine.

Guidelines for designing an effective site hierarchy will be discussed later in the lesson.

3. Learning product information

The Web is an ideal environment for learning about products and services. As discussed in an earlier lesson, products and services that require considerable pre-purchase research are ideal for online marketing. Much of this can be implemented through automated document retrieval methods, providing self-service support to the visitor. Links to the information must be clearly identified and the interface for accessing the information must be intuitive and easy to use.

When a user does navigate to the area of the site that includes detailed product information, the user should be able to find enough information to answer his or her pre-purchase questions. The amount of information you should provide depends on the product being marketed. Knowing some facts about how users navigate will help the site designer arrange the information effectively.

Most surveys conclude that users do not read Web pages; they merely scan. Thus, providing too much information on high-level pages may hinder the user. Building depth into a site will allow the navigation to be relatively free of extraneous information until the topic becomes specific.

4. Purchasing the product or service

The final phase is closing the sale: converting a shopper into a buyer. In actuality, the buying process may have started when the visitor was searching for the item.

Ideally, when the user finds the product or service, he or she should not have to go far to make the purchase. Most sites employ a shopping cart to which the user can add the item, then pay or continue shopping. For multiple items, the shopping cart is an expected component of an e-commerce site. Not all sites need shopping carts. For example, if a site collects a single fee for an annual service, a shopping cart is unnecessary; only a way to make the payment is required.

Buying anonymously

Many online customers do not want to provide any personal information before they purchase the product or service. For example, many prefer to remain anonymous while browsing the site and adding items to the shopping cart. As with customers at a physical store, no information is required of them as they walk down the aisles and fill up their carts, allowing them the freedom of anonymity until the transaction occurs. This model is familiar to customers. Failure to follow this model may alienate many prospective customers.



Movie Time!

Go to CIW Online to view a movie about this topic.

Making Your Site Usable (approx. playing time: 05:00)

All movie clips are © 2011 LearnKey, Inc.

Usability Testing

OBJECTIVE:
1.1.2: E-commerce
site plan

Usability testing is an essential step in designing a site that is easy for your users to navigate. Various techniques are available for testing a site's usability. Some are more appropriate in the pre-implementation design phase. Others cannot be performed until after the site has been built.

There are few universal rules for determining a site's usability. How usable (or intuitive) a Web site is depends on the site itself, the person using the site and the customer's current situation. Usability testing requires you to identify probable customer and situational scenarios and analyze your site design's effectiveness within specific customer scenarios.

Knowing your customers

Before you can conduct usability testing, you have to identify your potential customers. Your business might have customers that fit a single profile, or it might appeal to a wide range of customers. As you will recall from an earlier lesson, demographic and psychographic data can be used to categorize customers into segments or groups. For example, a Web site that sells women's clothing might group its customers using age demographics. Or it might group its customers into lifestyle categories using psychographic data.

Before beginning usability testing, you should ask yourself various questions about your potential customers. Some of these questions might include:

- How familiar is the customer with Web site navigation or buying on the Internet?
- How familiar is the customer with the products or services you are selling?
- How would you describe the customer's lifestyle?
- What demographic groups would you use to categorize the customer?

Answering these questions will be important to choosing subjects effectively for usability testing and for considering customer use scenarios.

Understanding the context

Another key consideration when considering a Web site's usability is to determine the context in which the user is accessing the site.

- Will the user be in a hurry or have time to read volumes of information?
- Will the user have all the information necessary to complete a registration form or make a purchase?
- Will the user be able to make the purchase decision immediately?
- At what point will the user be comfortable providing personal information?
- Will the user be accessing the Web site from home or from work?
- What external distractions is the user likely to encounter.

Depending on the product or service you offer, there might be additional considerations related to context. See Jared M. Spool's article "Putting Context into Context," which is available at www.uie.com/articles/putting_context_into_context/.

Usability testing methods

Usability testing and modeling should be performed at all stages of the design, development and maintenance process. However, the method or methods you use will depend on site content, your potential customers and on how much money is budgeted for usability testing. Some methods you might use include:

OBJECTIVE:
1.1.4: Usability test results

- Paper-based walkthroughs.
- Personas and role playing.
- Live usability testing.
- Field testing.
- Click patterns.

We will look at each of these methods.

Paper-based walkthroughs

A paper-based walkthrough is most suitable for the initial design phase of a Web site's development or renovation. When performing a paper-based walkthrough, you will sketch your Web site's hierarchy and basic design, and ask a focus group questions to gauge the design's effectiveness. You will then revise the designs and present them again to the focus group. This method is an inexpensive way to cycle through multiple design ideas, selecting the one that seems most intuitive to your focus group.

Personas and role playing

Another way to test a Web site's usability is to create personas that represent each type of user you expect to access your Web site and role-play how the user would navigate the Web site to locate and purchase a specific product or service. For example, suppose you were creating a Web site that will sell games appropriate for ages 12 to 19. Some potential personas you might create include:

- A customer in the target age demographic.
- The parent of a person in the target age demographic.
- The grandparent of a person in the target age demographic.

The more detailed the background you can provide for the persona, the more information you will be able to gather from role playing.

Live usability testing

Another important type of usability testing is a live test. In a live usability test, the subject accesses the Web site with a specific goal in mind. An observer tracks the user's progress through the site to locate potential trouble areas. It is important that the observer not assist the user during a usability test.

After the user has achieved the goal, the observer might ask the user targeted questions about his or her experience. The user's answers to these questions should be considered in the context of the results of the observation.

It is important to use live testers that represent the user types that you expect to navigate to your Web site. If unable to identify testers that match your target customers, use the next closest match. A common error is having test users that are more computer literate than your target audience. The tendency to overestimate the average user's computer literacy is hard to avoid.

Field testing

A more expensive way to conduct usability is to visit users in their native environment and watch how they access the site. This method is generally more appropriate to a B2B site or to an **intranet** site than to a site that targets the general public.

intranet

An internal network based on TCP/IP protocols, accessible to users only within a company.

OBJECTIVE:

1.1.6: Click patterns

Click patterns

The most-traveled path of a Web site can be determined by click patterns. After server logs have been compiled, they can be evaluated to see the patterns for a user's interaction with the site. Click patterns can be collected in the following two forms:

- Random-user click patterns (or random-click patterns)
- Controlled-navigation click patterns (or controlled-click patterns)

The random-click pattern technique is used to help find strengths and weaknesses in the site. For example, assume first that the landing point is the home page. After looking at the logs, you can determine the most traveled route by watching the patterns that emerge. Users may click a certain link significantly more often than they click other links on the page. Moving further along that pattern, you can see where users went and whether a purchase occurred. Another factor that can be determined is the time spent in transit. Do users follow a certain path and then follow a link away from the site? Do they follow one path, then retreat using the Back button and follow another?

After these patterns are identified, the site can be examined to see how it can be improved based on the findings. Pages that do not get any traffic might need to be removed, or the links to them updated or better defined. Perhaps a certain page contains important information, but the users do not seem to find it. If so, the navigation is probably not clear.

The controlled-click pattern directs the user in a specific pattern or path. Imagine an e-commerce site that requires first-time users to complete a registration process before making a transaction. The customer will visit the site, find items and add them to a shopping cart. Next, he or she will be asked to register, a mandatory process. This registration is the controlled part of the navigation as it relates to the purchase. Until the user decides to purchase, he or she could have been anywhere within the site, but a specific path is now required. At this point, the user is directed into the controlled environment.

For returning customers, the click pattern will most likely be different from what it would be for a new customer. Returning customers can shop at random, but when the time comes to purchase, those customers do not need to register (but might need to log on). This would be another instance in which the click patterns can be controlled. The pattern for returning users can begin when they first visit with a logon procedure. Or it can be controlled at the time of checkout, when they can be asked whether they are new or returning customers. Returning customers can be taken immediately to the checkout, bypassing the registration area.

In the following lab, you will use personas and role playing to analyze an e-commerce site's usability. Suppose you have been hired by Dell to develop personas of potential customers. You might want to use the role-playing method of usability testing to see how those customers would locate information on the Dell site.



Lab 5-1: Using personas and role playing to analyze site usability

In this lab, you are going to develop two personas by answering questions about each of them. Next you will visit the Dell Web site to determine how each persona would search for and locate a computer.

1. Myrtle is the grandmother of an 18-year-old boy who is graduating from high school. He has asked for a laptop computer for graduation. Fill out additional details about Myrtle's persona. Write your answers in the space provided.

How much does Myrtle know about computers? _____

What is Myrtle's most important consideration? _____

What product information will be important to Myrtle? _____

Where does Myrtle work? _____

Will Myrtle be accessing the Web site from home or from work? _____

Will Myrtle need to consult anyone else before making the purchase? _____

2. Brian is the manager of the multimedia department of an advertising agency. His company has an account with Dell. His computer does not meet the requirements for the new animation rendering software his company has chosen. Fill out additional details about Brian's persona. Write your answers in the space provided.

How much does Brian know about computers? _____

What is Brian's most important consideration? _____

What product information will be important to Brian? _____

Will Brian be accessing the Web site from home or from work? _____

What kind of distractions might Brian encounter? _____

Will Brian need to consult anyone else before making the purchase? _____

3. **Browser:** Navigate to the Dell Web site (www.dell.com).

4. Take on the persona of Myrtle searching for a laptop computer for her grandson. Locate the product and any information you need before making the decision to purchase. Answer the following questions about your experience:

How easy was it to locate an appropriate product? _____

Were you able to find all the information you needed? _____

What changes (if any) would you make to the site to make it easier for Myrtle to use?

5. Take on the persona of Brian searching for a computer that will run the new application. Locate the product and any information you need before making the decision to purchase. Answer the following questions about your experience:

How easy was it to locate an appropriate product? _____

Were you able to find all the information you needed? _____

What changes (if any) would you make to the site to make it easier for Brian to use? _____

In this lab, you developed two personas and analyzed the usability of the Dell Web site for those personas.

Designing the Site Hierarchy

OBJECTIVE:
1.1.2: E-commerce
site plan

The site hierarchy determines how information is organized on your Web site. It determines how each page is related to other pages on the site. Making your site hierarchy easy to understand is important so that customers know where they are at all times and how to get to where they are going.

Your site's hierarchy will begin at the home page. From there, you might have branches to the product catalog, the checkout process, a customer service area, and one or more content areas. Depending on the nature of your business, you might have other areas as well. Figure 5-1 shows one possible site hierarchy.

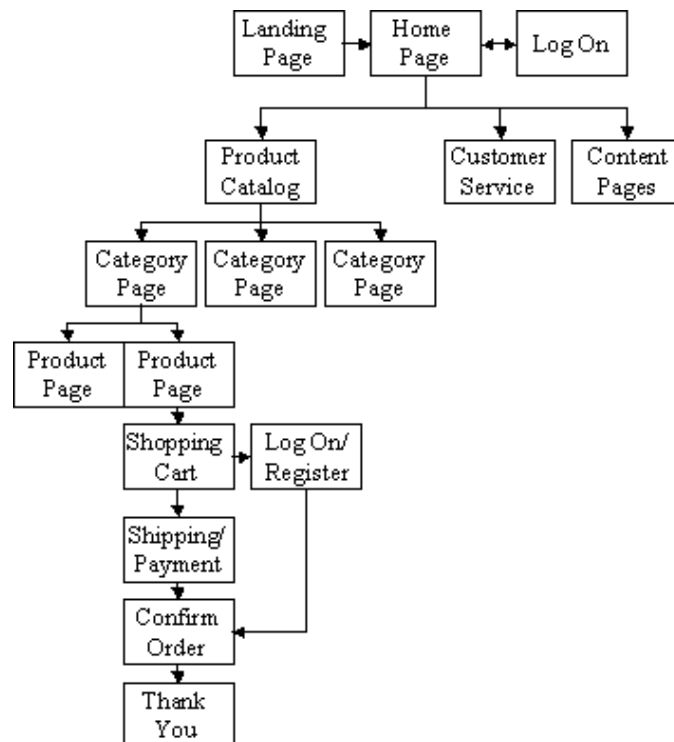


Figure 5-1: Site hierarchy example

In this hierarchy, a landing page (or landing point) provides entry to the site for new users. Returning users enter the site through the home page. An optional logon page allows users to log on or, if they are already logged on using a cookie, log on as a different user. From the home page, users can access the product pages, the customer service area or the content pages. The product pages are organized by category, allowing users to easily locate the type of product they need. Product-specific pages display detailed information about the selected product and include a Buy button, which sends the user to the shopping cart. From the shopping cart, the user has three options: log on (or register), buy without logging on (or registering) or return to the product catalog to select additional products. If the user chooses to buy without logging on, shipping and payment information must be provided. Finally, the user is given an opportunity to confirm the order and, if payment verification succeeds, is presented with a Thank You page.

Although this is a fairly simple hierarchy, most e-commerce sites will be built using some variation of it. We will look more closely at its various components.

Landing point

The landing point, sometimes referred to as a splash screen or a landing page, is a welcome page for new customers. Figure 5-2 shows the landing point for Netflix Inc., an online movie rental service.



Figure 5-2: Netflix landing point

A landing point typically has a graphic, a "hook" to get you to enter the site, and a few links. For example, the Netflix landing point has a lifestyle graphic, a link for a free trial, a menu bar that allows you to get more information or browse the movie selection, links that allow you to redeem a special offer or gift certificate, and a logon link for existing members who access the site from a computer that does not contain a cookie.

A landing point is an optional page, but, used effectively, it can draw in new customers by presenting a clear and compelling message. When designing a landing point, you should use simplicity as your guide. It should be easy for new and existing customers to understand where they need to click in order to continue.

Home page

The home page is the landing point for return visitors, or if there is no landing point, for all visitors. Figure 5-3 shows the home page for Dell.

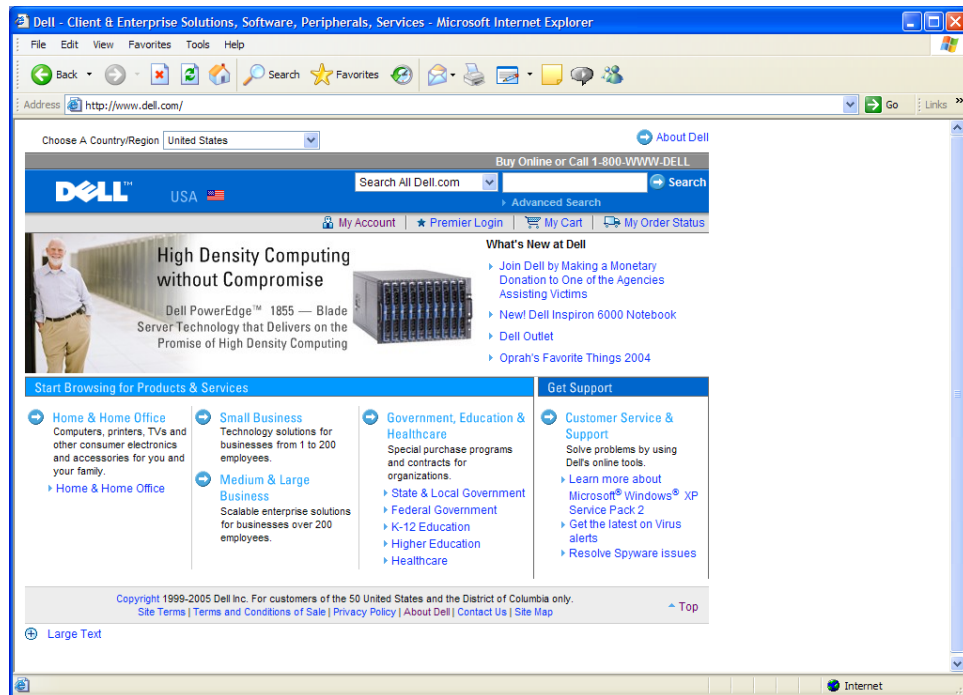


Figure 5-3: Dell home page

The home page should provide navigation to all key areas of the site. The content of the home page will be specific to the business. However, the following elements are typical:

- A link to a page of general company information
- Links to products and/or a product overview page
- A link to a logon page
- A search box

Some companies also display a personalized home page for users who are logged on either through cookies or explicitly.

Logon page

The logon page provides a form for users to log on. Although it is recommended that you make logon and registration features available when the user first enters the site, you should allow users to complete the product selection loop before requiring them to log on. Figure 5-4 shows an example of the Dell logon page (or Sign In page).

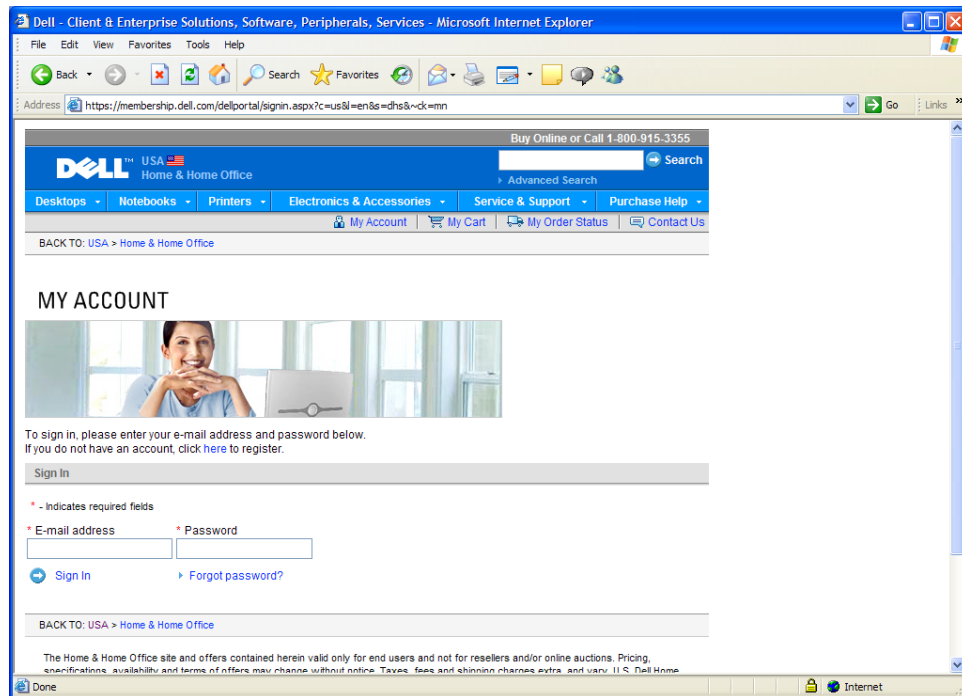


Figure 5-4: Dell Sign In page

Notice that the Dell Sign In page includes a link for users who forget their password and for visitors to register for the first time for a new account. Sites that ask visitors to create a user name instead of using an e-mail address for identification will also have a link for users who forget their user name. These are standard features of a logon page and are critical to making the site easy for customers to use.

Product selection loop

The product selection loop is the sequence of screens a user sees when locating products and adding them to a shopping cart. It is best visualized as a loop because, ideally, a user will repeat the sequence of steps to select multiple products. The first step in designing the product selection loop is to determine how your products should be categorized. The main product categories should be available on every page of the product selection loop, and in most cases from the home page. To avoid overwhelming the user, you should limit the number of product categories to no more than nine. If your company has a diverse range of products, you will then want to create subcategories to further group products into manageable units. For example, Dell might categorize its products as follows:

- Servers
- Desktop computers
- Notebook computers
- Computer peripherals
- Other electronics

The company might then subcategorize its computer peripherals as follows:

- Monitors
- Mouse devices and other pointing devices
- Keyboards
- External drives
- Scanners and cameras

Secondary categories

Primary categories should be designed to meet the needs of the majority of users. However, defining secondary categories to be intuitive for a different group of users might also be desired. These secondary categories are used to provide an alternative path into the product selection loop. For example, a store that sells cookware might use the following primary categories:

- Pots and pans
- Bakeware
- Serving dishes
- Cookbooks
- Foods

The store might also use the following secondary categories:

- Dinner for two
- Entertaining
- The luxury kitchen
- College cookery

Notice that in this example, the secondary categories are based on lifestyles and are a little more conceptual. The secondary categories will often include items from multiple primary categories.

Special categories

Sometimes it is also appropriate to include special categories designed to appeal to a subset of your potential customers. Special categories might include the following:

- Discontinued items
- Sale items
- Sales demonstration items (like brick-and-mortar shelf stock)
- Seasonal items

For example, Dell's product pages include a link to refurbished computer systems and other electronics that sell at a reduced price. These are examples of special categories.

Product category page

Each product category should have a page that introduces the category. The page might include links to special deals on products in that category, overview information about products in that category, a list of product subcategories, or, if only a few products in that category are available, a product list. Figure 5-5 shows the category page for desktop computers on Dell's site.

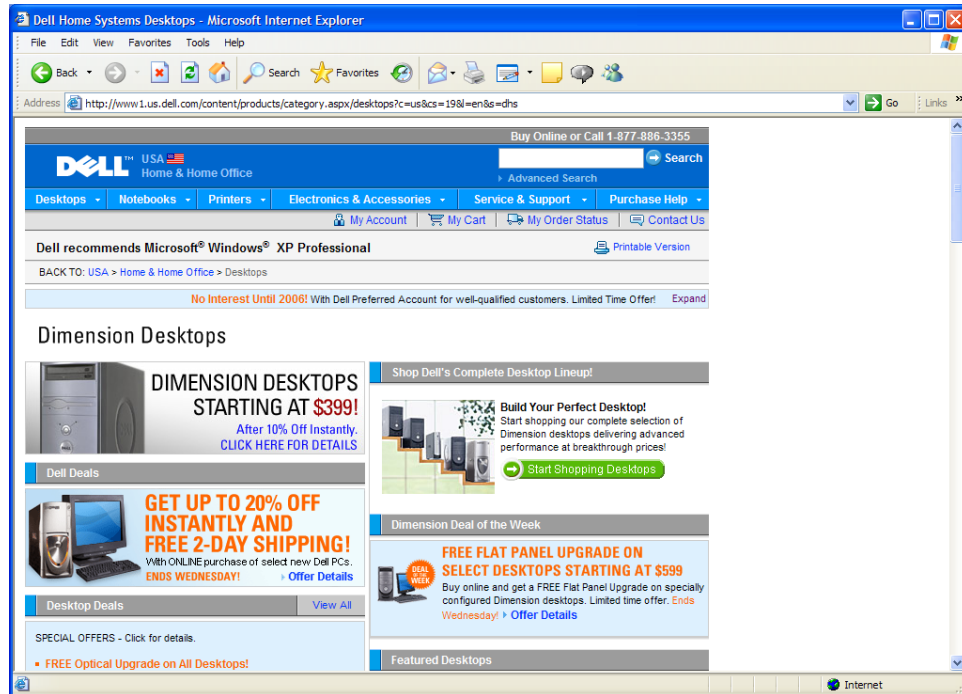


Figure 5-5: Category page — desktop computers

Product list

When displaying the product list for a specific product, you must be careful to organize it so that users can find the product or products they want. Dell chose to include detailed information about each computer directly in the product list (see Figure 5-6).

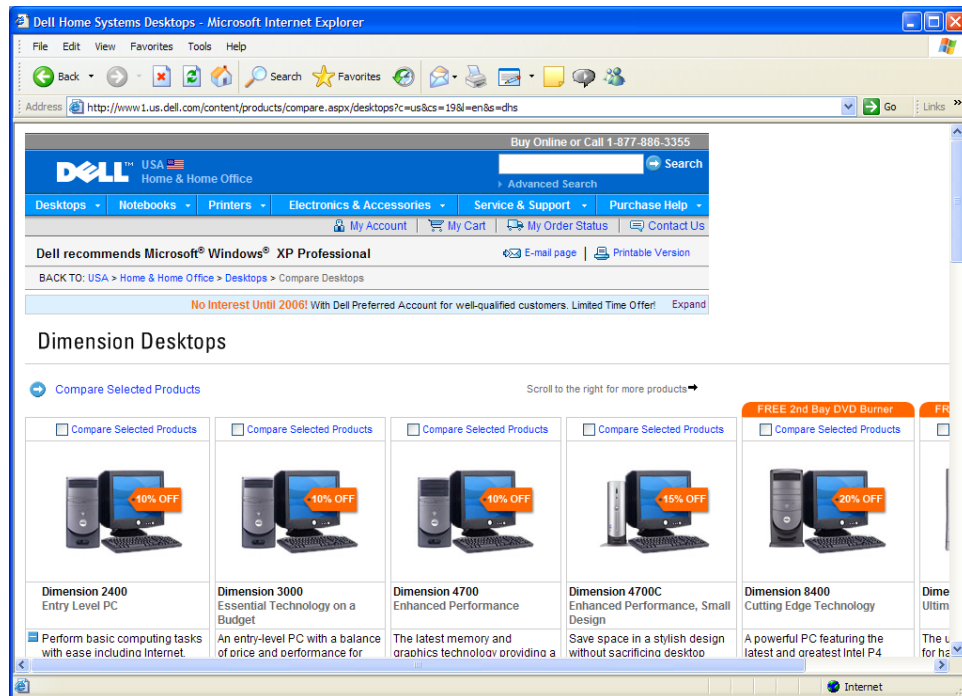


Figure 5-6: Desktop computers — product list

Other companies might provide thumbnails of the products, or simply product name lists that can be sorted in various ways. For example, Figure 5-7 shows the product list for Cabernet/Merlot blends on Wine.com. Notice that you can select multiple sort orders for the listed products.

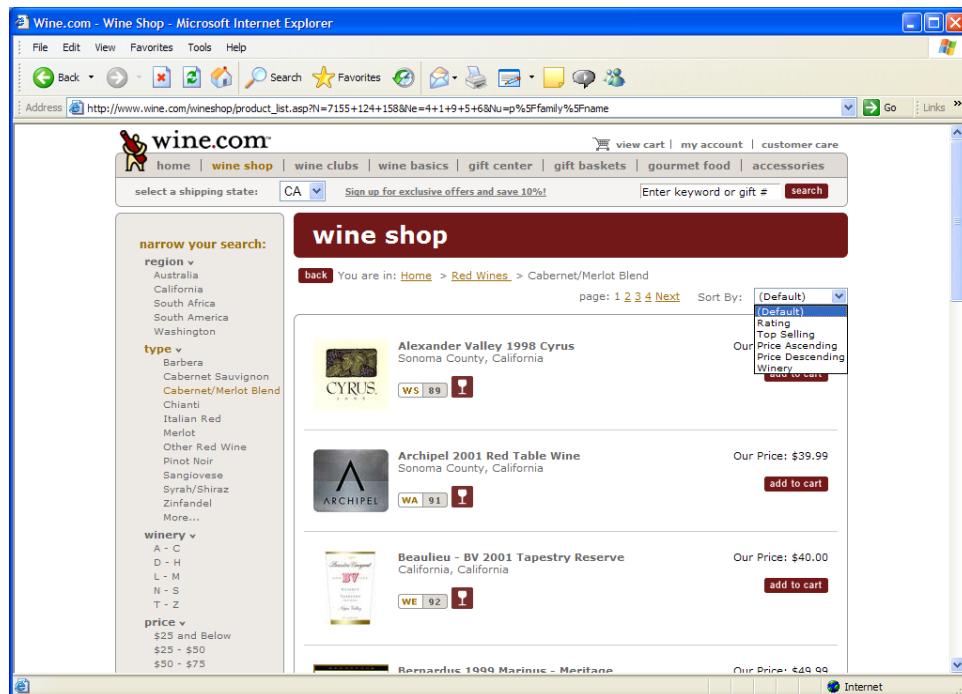


Figure 5-7: Wine.com product list

Product details

It is important to provide enough about the product so that the user will feel comfortable purchasing it. The types of information you will need to provide will differ depending on the product, but might include the following details:

- Close-up photo
- Product description
- Product specifications
- Warranty information
- Professional reviews and ratings
- Customer reviews
- Product comparisons
- Media samples (for example, audio or video clips)

Simplifying the purchase process

Another key consideration when planning your product selection loop is to make it easy for customers to purchase the product. In most cases, you should position a Buy button on the product list page and on the product detail page. The Buy button should be visible without scrolling. In most cases, the Buy button is positioned to the right of the product description.

Shopping cart and checkout process

When users click the Buy button, they should be taken to the shopping cart so they can view the items currently in their cart and decide whether to complete the checkout process. From the shopping cart, users should be able to continue shopping, modify the order or proceed to the checkout process. Some Web sites use a View Cart link to allow customers to examine the cart contents and then continue shopping.

At this point, your interface needs to direct users through the checkout process so that they complete it without abandoning their shopping cart. Guidelines for implementing the checkout process include the following:

- Provide information about shipping options and costs.
- Do not require customers to register in order to make a purchase. Registration should be optional.
- Provide payment options with instructions for how to complete the transaction using each option.
- Provide contact information.
- Provide a bailout mechanism to allow customers to back out of a purchase.
- Save the cart in case the user closes the browser window before completing the transaction.
- Save individual items in the cart for later purchase without removing all items from the cart.

The final screen in the checkout process should be a Thank You screen. This screen is important because it gives the user a sense of completion and is a valuable customer-

service touch. You can also use the Thank You screen to communicate information about order tracking, and to provide a final opportunity for an impulse buy or referral.

Content area

Content is any additional information that is not directly related to a product or a company's purchase and support procedures. Content can be used to add value to the site and to create a sense of community. When designed correctly, content can distinguish you from your competitors. One example of this is the Barnes & Noble University (see Figure 5-8).

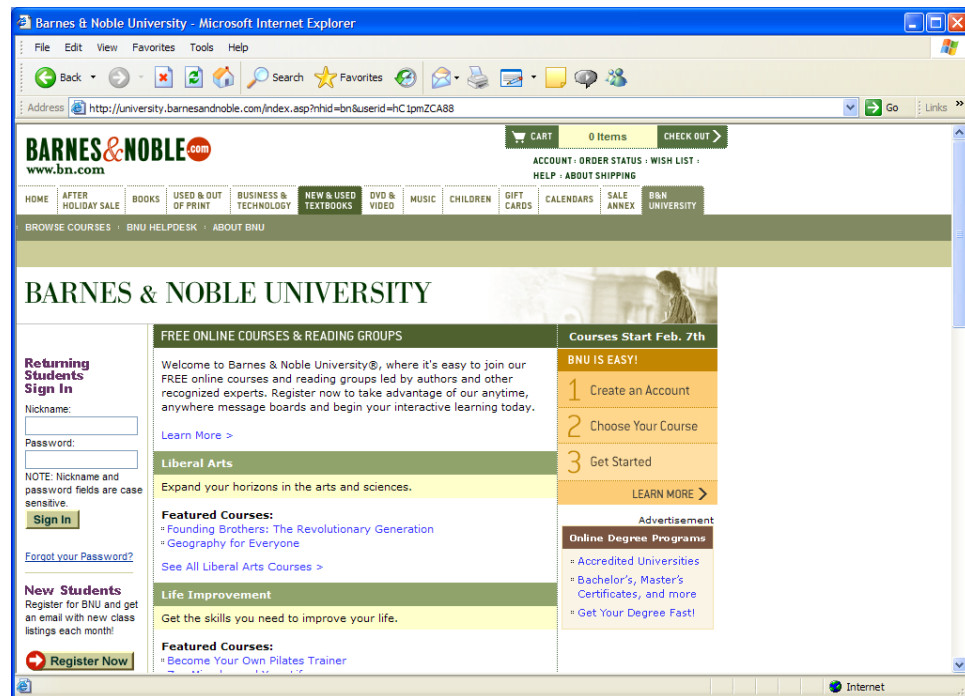


Figure 5-8: Barnes & Noble University

Through its University page, Barnes & Noble offers free online classes and reading groups to create a community of customers who will return to its site. Other content offerings might be less comprehensive. For example, a site that sells cooking utensils might include recipes. A sidebar on the recipe page might list products that would be used in preparing that recipe.

Content page guidelines might include the following:

- Provide links to related product pages.
- Consider opening content pages in a separate window. This feature is important if the content resides on a different Web page.
- Keep the content current.

Customer service area

Another key component is the customer service area. This area should include various features to support the customer, such as:

- Shipping prices and procedures.
- Return and warranty information.
- Technical support information.

In the following lab, you will access the Barnes & Noble Web site and locate a product to assess the site's usability. Next you will answer questions about your experience. Suppose you were analyzing the usability of various competitive sites for a customer. You would need to carefully examine the features and presentation of content on those competitor sites.



Lab 5-2: Analyzing site usability and hierarchy

In this lab, you will access the Barnes & Noble Web site and search for a product. As you do so, you will answer questions about the site's hierarchy and organization.

1. **Browser:** Navigate to the Barnes & Noble Web site (www.barnesandnoble.com).

Examine the available options and list the primary product categories in the space provided:

2. Examine the available options and list the secondary product categories in the space provided:

3. Click the **Music** hyperlink. Identify three subcategories and write them down in the space provided:

4. Locate a CD containing the song "Yellow Submarine" by the Beatles. List the steps you took to locate the product. Did any of the steps give you trouble?

5. Click the **Beatles One** link to list detailed product information.
6. Click **Add To Cart** to add the CD "Beatles One" to your shopping cart. Identify two features that might encourage you to buy additional products and write your answers in the space provided:

7. Click the **Proceed To Checkout** link.
8. Continue the checkout process as a new customer. Do not provide actual payment information. When you get to the Payment screen, close the browser. List two things you liked about the checkout process in the space provided:

9. Was there anything you did not like about the checkout process?

In this lab, you analyzed the process of locating and purchasing a product on the Barnes & Noble site.

Page Layout Design Guidelines

screen flow

The way in which content is organized on the page.

OBJECTIVE:

1.1.5: Screen-flow principles

When a site is developed, the way in which its content is displayed is as important as the information itself. The way in which content is positioned on the page is known as **screen flow**. Presentation elements should be compatible with users and their habits. Users will typically not read a Web page; they will scan. Certain screen-flow techniques can enhance scanning, thereby reducing frustration during navigation.

Keep in mind that "less is more" when it comes to Web design. Thus, a Web page with too much content will not be as effective as one with less content. When users visit a page, their eyes begin to focus on the screen as a whole. Then they start to look for keywords and hyperlinks to other pages. Keeping this content organized and clutter-free on the page will help users even if they do not fully comprehend the ideas of good site design.

Most major newspapers provide an excellent example of how to organize large amounts of information. The front page will usually have a "lead" story along with some accompanying photos. It may also carry several other small or local-interest stories. Along the left side may be a summary of the whole section to give the reader a small heading and one sentence about each story. Users do not have to find and then read the story; they can just look at the title, read the sentence and decide whether they want to read more. If they do, they simply turn the page (link) to the full story.

Web site designers should consider the newspaper model for formatting page content. Do not put everything on one page and clutter it with information that many people will not be interested in viewing.

Screen-flow guidelines

When designing the screen flow of a specific page, consider the following guidelines:

- Include major navigation buttons on each screen.
- Put the most important information in the upper-left portion of the screen.
- Remember that users might not scroll.
- Use white space (text-free space) effectively. Do not make the screen too busy.
- Make sure each page conveys your marketing message.
- Make sure each page includes the company brand.

Even though their goals are different from those of most e-commerce sites, Web portals are appropriate examples of efficient screen-flow design. Web portal designers are typically very efficient at following screen-flow guidelines and the newspaper model. Web portals are, by their nature, content-intensive. If the content is not well-organized, the user is unlikely to return to the portal. Also, as you learned in an earlier lesson, the primary revenue stream for most Web portals is banner ads. The user is more likely to notice and respond to a banner ad on a well-organized page.

In the following lab, you will analyze screen flow for the home pages of the Dell site and the Barnes & Noble site. Suppose you have been hired to redesign a company's home page. You must analyze other companies' home pages and identify what works and what does not.



Lab 5-3: Analyzing screen flow

In this lab, you will visit the Dell home page and answer questions about the effectiveness of the screen flow. Then you will visit the Barnes & Noble home page and answer the same questions.

1. **Browser:** Navigate to the Dell Web site (www.dell.com). Identify three things you like about the screen flow, and write your responses in the space provided:

2. Is there anything you would change?

3. **Browser:** Navigate to the Barnes & Noble Web site (www.barnesandnoble.com). Identify three things you like about the screen flow, and write your responses in the space provided:

4. Is there anything you would change?

Browser Compatibility Issues

frame

A scrollable region of a Web page in which other pages can be displayed; a single element of a frameset. Each frame has its own URL.

OBJECTIVE:

3.3.6: Browser use patterns

One final consideration when analyzing a site's usability is whether the site works with the browsers and operating systems your customers will be using. Some features are supported only on certain browsers. For example, some browsers will not display **frames** correctly and others will have trouble displaying Web pages that include browser-specific elements. For example, the Marquee element included with Microsoft FrontPage is only supported in Internet Explorer.

Many Web hosts provide data on the browsers and operating systems being used to access your Web site. Typically, they provide the number of hits by specific browser and operating system. These numbers might be reported according to the number of hits, percentages or both. Figure 5-9 shows the statistics reported for a Web site hosted by Web Strike Solutions.

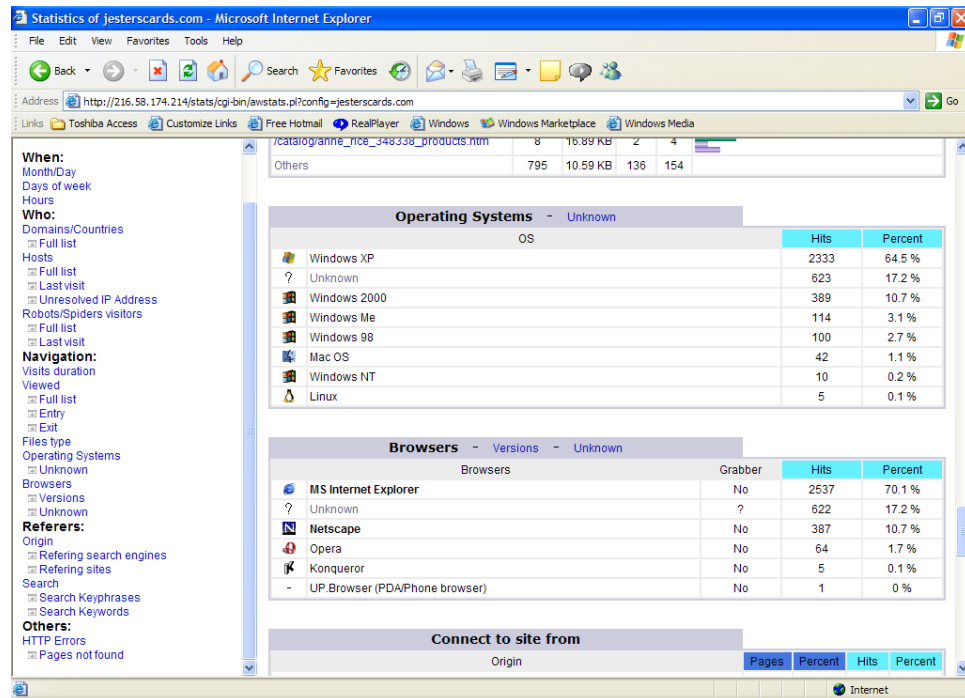


Figure 5-9: Operating system and browser statistics

It is important to keep these statistics in mind as you develop and test your Web site. For example, the statistics shown in the preceding figure indicate that although Internet Explorer is the most commonly used browser, a number of users connect using an unknown browser and Netscape Navigator. Therefore, testing the Web site with Netscape Navigator is recommended in this situation. Also, remember that not all customers will have the latest version of a browser. Providing backward-compatible versions of your site will help prevent alienating these customers.

Case Study

Weaving Site Usability into Success

Mandy is a member of the Web development team for Baskets and More. Baskets and More is an e-commerce business that allows customers to buy pre-made gift baskets and to design and purchase custom gift baskets. The company is revamping its Web site in response to low sales and complaints from customers. The top three customer complaints are as follows:

- It is difficult to find the right items to put in the basket.
- The final costs of the basket and shipping are not displayed until after payment information has been entered.
- Some customers do not want to register before making a purchase.

Mandy has been assigned the task of planning the usability testing for the new site. Mandy creates a test plan that calls for the following actions:

- Analyze the click pattern for the existing site.
- Make modifications that address existing customer feedback.
- Delete pages that have not been accessed.
- Conduct tests using members of the Web development team as subjects.

* * *

As a class, discuss the following points with regard to Mandy's plan:

- What additional usability tests would you suggest before making changes to the site?
- How would you change the usability tests conducted after the site is modified?
- What might be a better alternative than deleting pages that have not been accessed?

Lesson Summary



Application project

As you have learned, site usability is a core component of any successful site. Before this lesson, how many usability techniques were you aware of? How many did you discover over the course of this lesson? From your Internet experience, what usability element allows you to get the most use out of a site? Is it the same as the items discussed in this lesson?

Have you ever been asked to participate in a usability test for a Web site, or something other than a Web site? If so, how do you think your participation influenced the final product? If you have not taken part in usability tests, can you see their benefits, and would you be willing to participate if asked?

Think about any project you will be working on in the future and discuss how a usability test should or should not be a part of the final product rollout.



Skills review

In this lesson, you learned the importance of usability and how a Web site must be designed with common browsing characteristics in mind. You also studied how click patterns can indicate site usage and efficiency, and how you can evaluate them. In addition, you learned about the screen-flow principles that are essential to user-friendly Web pages.

Now that you have completed this lesson, you should be able to:

- ✓ 1.1.2: Create an e-commerce site plan (includes determining expected traffic rates, conducting usability tests, determining scalability options).
 - ✓ 1.1.3: Analyze audience usability principles and apply them to a Web site.
 - ✓ 1.1.4: Analyze the results of usability tests and implement changes.
 - ✓ 1.1.5: Apply screen-flow principles to Web pages.
 - ✓ 1.1.6: Evaluate click patterns and implement changes.
 - ✓ 3.3.6: Obtain browser and operating-system use patterns.
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Lesson 5 Review

1. What are the four usability-related goals of an e-commerce site?

2. Why might providing too much information on a Web page hinder users?

3. How can a site provide a large amount of information without hindering usability?

4. Under what circumstances would an e-commerce site not need a shopping cart?

5. You analyze the click pattern of a site and determine that two pages are never visited. What are two possible actions based on these results?

6. Why would a Web site need subcategories?

