

Types of Navigation

Several aspects distinguish types of navigation:

- The type of content a mechanism accesses
- Behavior of the navigational links and transition to the next page
- The tasks and modes of seeking the mechanism supports
- Visual treatment of navigational options
- The position of a navigation on a page

CATEGORIES OF NAVIGATION

Most navigation types fall into three primary categories

Structural

Connects one page to another based on the hierarchy of the site; on any page you'd expect to be able to move to the page above it and pages below it.

Associative

Connects pages with similar topics and content, regardless of their location in the site; links tend to cross structural boundaries.

Utility

Connects pages and features that help people use the site itself; these may lie outside the main hierarchy of the site, and their only relationship to one another is their function.

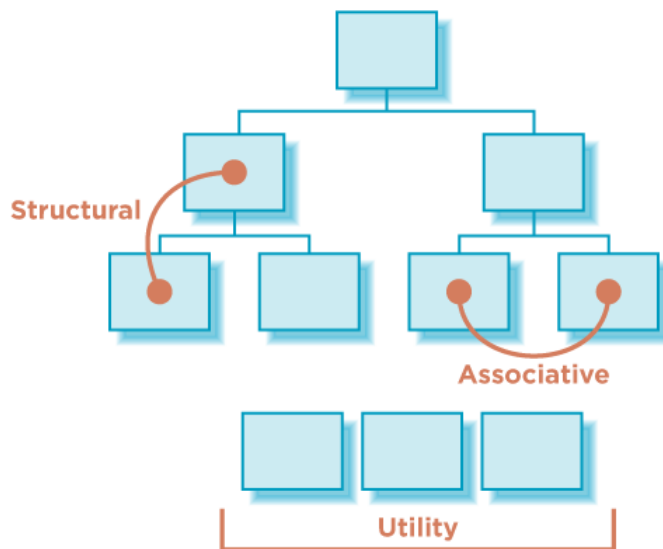


Figure . Three primary categories of navigation

STRUCTURAL NAVIGATION

As its name implies, structural navigation follows the structure of a web site. It allows people to move up and down the different points of a site's hierarchy. Structural navigation can be further subdivided into two types: main navigation and local navigation.

1. MAIN NAVIGATION

Also called: global navigation, primary navigation, main nav.

The main navigation generally represents the top-level pages of a site's structure—or the pages just below the home page. The links in the main navigation are expected to lead to pages within the site and behave in a very consistent way. Users don't expect to land somewhere completely unrelated when using main navigation links. Changes in navigation from page to page are usually small when using the main navigation.

Overall, a main navigation supports a variety of user tasks and modes of information seeking, including known-item seeking, exploration, and even re-finding.

- The main navigation **provides an overview and answers** important questions users may have when first coming to a site, such as "does this site have what I'm looking for?"
- The main navigation **aids in orientation**. It is comforting to have a persistent navigation mechanism across the site, particularly for large, information-rich sites.

- It allows people to **switch topics**. Visitors can get to other sections of a site efficiently, or they can reset their navigation path and start over using main navigation options.
- It helps when users get interrupted while navigating and reminds visitors where they are in a site.
- Main navigation gives shape to a site. In many ways, the main navigation defines the boundaries of the site itself.

The main navigation is often presented in a global navigation area, which generally includes the site logo and utility navigation. As the name "global" implies, these controls generally appear in an unchanged, consistent position on all or nearly all pages of a site. Some utility links are included to the right, such as a site map and link to site search. It's also typical to include a design element, such as a picture or graphic.



2. LOCAL NAVIGATION

Also called: sub-navigation, page-level navigation.

Local navigation is used to access lower levels in a structure, below the main navigation pages. The term "local" implies "within a given category." On a given page, local navigation generally shows other options at the same level of a hierarchy, as well as the options below the current page.

Local navigation often works in conjunction with a global navigation system and is really an extension of the main navigation. Because local navigation varies more often than main navigation, it is often treated differently.

Common arrangements of local navigation and main navigation include:

Inverted-L

It is very common to place a global navigation along the top of the page and have local navigation as a vertical link list on the left in the shape of an inverted L.

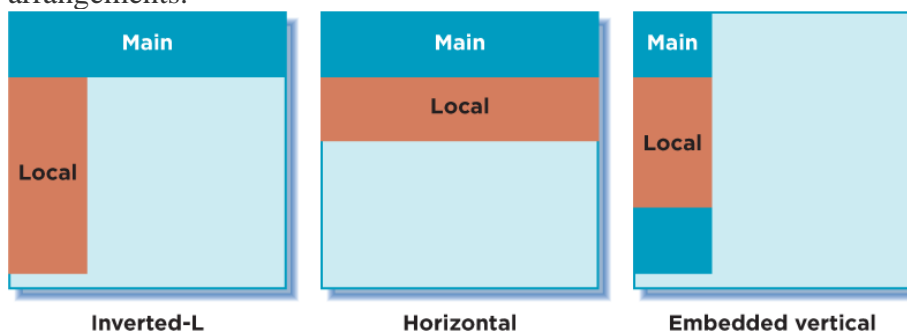
Horizontal

Local navigation might also be represented by a second row of options under a horizontal global navigation or by dynamic menus.

Embedded vertical

When the main navigation is presented in a vertical menu on the left or right, it's common to embed the local navigation between the main navigation options in a tree-like structure.

Figure 4-5 diagrams these three common arrangements. Keep in mind that other arrangements are possible, such as a right-hand local navigation, as well as combinations and hybrid arrangements.





ASSOCIATIVE NAVIGATION

Associative navigation makes important connections across levels of a hierarchy or site structure. While reading about one topic, the user can access to other topics. This is a key aspect of hypertext in general, but is also at the heart of the embedded digression problem mentioned in Chapter 2.

Three common types of associative navigation are: contextual navigation, quick links, and footer navigation. Take a closer look at each in turn.

1. CONTEXTUAL NAVIGATION

Also called: associative links, related links.

As the name implies, contextual navigation can vary. It's situational. Though links may transition to similar pages at the same level within the site, they quite frequently lead to new content areas, different page types, or even a new site.

Generally, contextual navigation is placed close to the content of a page. This creates a strong connection between the meaning of a text and the linked related pages. There are two typical arrangements of contextual navigation on the page (Figure 4-8):

Embedded navigation

Contextual navigation may be embedded within the text itself. As a result, contextual navigation is often represented as plain text links.

Related links

Contextual navigation may appear at the end or to the side of content.

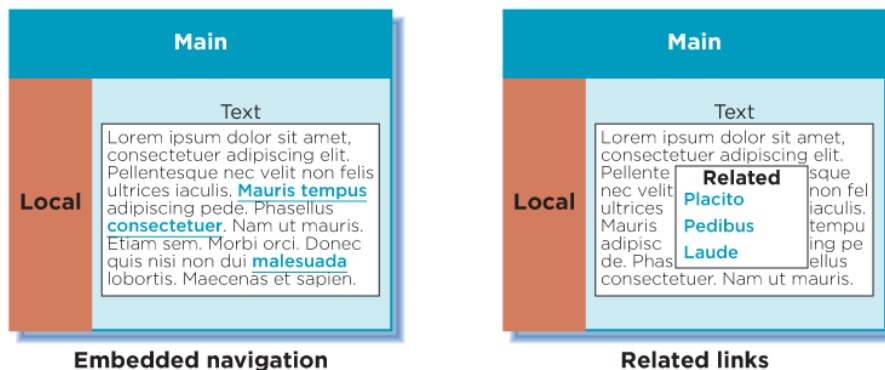


Fig Two types of contextual navigation: embedded links and related links

If the navigation is embedded within text, there may be an explicit indication to prepare users for more disjointed interaction, such as linking to a different content format or another site. For instance, an embedded link may be preceded or succeeded by text indicating that the linked material is on a different site or in a different format. [Figure 4-9](#) shows the Education page on the web site of the Information Architecture Institute (www.iainstitute.org). Links in the text lead to other pages in the site on various levels of the structure. The first link in the last paragraph opens a PDF document, as noted in the text. The second link goes to Amazon.com.

The screenshot shows the 'Education' page of the Information Architecture Institute. The page has a blue header with the site name and a search bar. A green navigation bar lists 'Home', 'Partners', 'Initiatives', 'Education', 'Research', 'News', and 'About Us'. On the left, a sidebar lists 'Education', 'Schools Teaching IA', 'Careers', 'Books', 'IA Library', and 'Online Communities'. The main content area is titled 'Education' and contains text about learning information architecture. It includes links to 'books', 'internships', 'practice', 'online communities', 'IA Library', 'IA Tools', and 'IA Glossary'. A quote by Brian Lamb is featured on the right. At the bottom, there is a link to a PDF document titled 'Educating Information Architects (pdf)' from Earl Morrogh's book 'Information Architecture: An Emerging 21st Century Profession'.

Contextual navigation doesn't support known-item seeking well. Instead, it supports exploration and may point people to new information. From a business standpoint, contextual navigation provides opportunities for upsell. Product pages in e-commerce sites, for instance, often have links to related products and services. This is a common use of contextual navigation in e-commerce.

Related links are also used effectively on news sites. From one article, readers can get to other related articles. For example, each story on the web site for *The Washington Post* (www.washingtonpost.com) ends with related links (Figure 4-10). There are two main parts:

- More stories on the same topic (Sports) as the current article. This includes a link that allows users to automatically search for even more articles on the same topic.
- Links to the most-viewed articles from the same section that the current article is in (in this case, Sports), including a link to see the top 35 most-viewed articles in that section.

Rutgers' offense couldn't control the ball, but it needed only one strike to leap back into the game. It came when Mike Teel found Kenny Britt on a post up the seam on third and seven. Britt zoomed all the way to the 4 before being caught from behind. Rice took a toss and ran for a touchdown on the next play and a two-point conversion followed, making it 25-22 with 4:42 left in the third quarter.

By the time Ito's heroics were complete, the Rutgers Stadium crowd was delirious. As the Scarlet Knights walked up a tunnel back into their locker room, a placard hung above the the entrance. In block letters, it read, "HISTORY."

[Print This Article](#) [E-Mail This Article](#) [Permission to Republish](#)

More on washingtonpost.com

- [Three Make a Move](#)
- [National Title Race Finally Arrives](#)
- [The Chop' Is Secret to Rutgers Success](#)

[» Related Topics & Web Content](#)
powered by **inform**

Most Viewed Sports Articles

- [Terps Hold On Against Spartans](#)
- [Getting Off the Ground Is a Problem](#)
- [Bo Schembechler, 77; Stormy Michigan Coach](#)
- [For Caps, Hurricanes, Not Much Has Changed in 8 Days](#)

[» Top 35 Most Viewed](#)

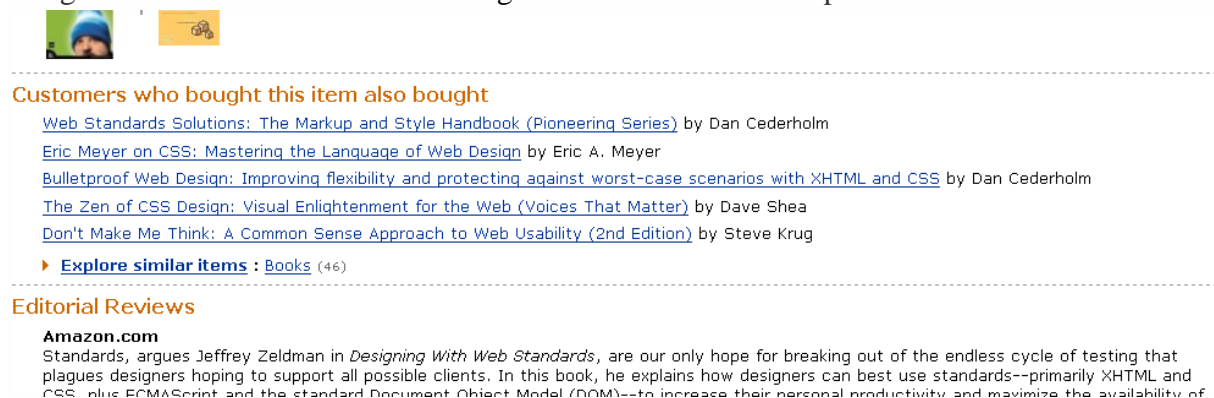
[View all comments](#) that have been posted about this article.

2. ADAPTIVE NAVIGATION

Look again at the links in the contextual navigation area of Figure 4-10, and you'll notice the Sports Articles links change based on which stories readers visit most. By observing what all site visitors do, a new type of navigation link arises: adaptive navigation.

Adaptive navigation is a special kind of a contextual navigation. Its links are generated from a process referred to as collaborative or social filtering. The process relies on an algorithmic ranking of some kind, based on user behavior. The principle is similar to a traditional best-seller list: if many people read something, it must be good. In this case, link relevance turns out to be a socially constructed phenomenon.

Adaptive navigation has been most prominently used to make recommendations on e-commerce sites. The classic example of this is the "Customers who bought this item also bought..." feature on Amazon.com. Figure 4-11 shows an example of this feature



This is an example of passive collaborative filtering: the site automatically collects user behavior to generate the list. With active filtering, participants in the site must explicitly rate a product, person, or service. You may have seen this on web journals and other sites that have a Highest Rated Articles list or similar. *Boxes and Arrows* (www.bboxesandarrows.com), for instance, allows readers to rate each story at the bottom of the text (Figure 4-12). Based on all ratings for all articles, visitors are then able to view the site's top-rated stories in the navigation.

would you feel insulted or flattered if I compared what you were doing to Strunk and White?

Oh, I'd be flattered. I still have my Strunk and White, and it's probably one of the most important books I've ever read. But I've also been a professional writer for 20 years now. The last dogma was stolen directly from George Orwell—it's his tenth legendary rule of writing.

Update: After this interview, Reiss edited #1 in the Dogma, adding "internal" before "politics" to make his point clearer.

Rate This Story

Your rating: ☐ ☐ ☐ ☐ ☐ ☐

Average rating: ☐ ☐ ☐ ☐ ☐ ☐

Lists of links produced by collaborative filtering are potentially long—virtually endless in some cases. Typically only the top items are displayed in a top-10-list fashion

Top 10 in Technology

2657

[Ads War: BMW started it, Audi answered...Bentley chairman had final say !!!](#)

1244

[Top 7 Freshest Designs of 2006](#)

1106

[Encode a binary file - like an image, or even an MP3! - into a text URL](#)

945

[The Five Best and Worst Things About Vista](#)

826

[Nine Amazing Future Military Technologies We Want](#)

781

[See real-time weather on a Google map](#)

727

[BBC moves to file-sharing sites](#)

685

[What happens when you take a photo at the right angle?](#)

652

[New Leopard build gallery reveals OS far from finished, but coming along](#)

645

[Ubuntu: OpenGL Login Manager? Pics/Mockups!](#)

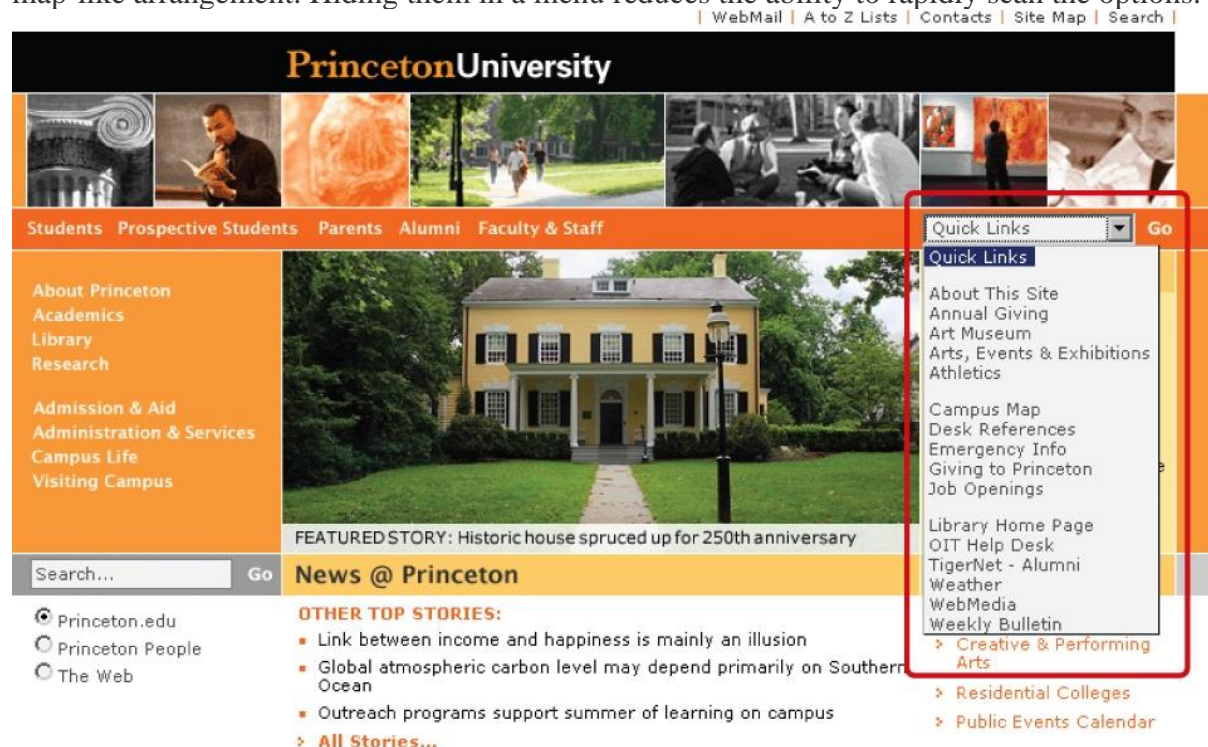
3. QUICK LINKS

Quick links provide access to important content or areas of the site that may not be represented in a global navigation. Although similar to contextual navigation, quick links are contextual for the entire site, not a given page. They generally highlight frequently accessed content areas or tasks, but may also be used to promote areas deeper in the site. Marketers may see the value in quick links for an upsell effect.

Transitions from page to page using quick links may vary greatly. By definition, they tend to jump around. They may link to a related sub-site, online shop area, or even to a completely new web site.

Quick links often appear at the top or on the sides of pages. On the home page, they may be prominently positioned in component of their own, but on subsequent pages they may be reduced to a drop-down or dynamic menu.

On the Princeton University web site (www.princeton.edu, Figure 4-14), quick links highlight key areas that are not represented by top-level navigation options. On the home page shown here, however, it might be better to display these links directly on the page, perhaps in a site map-like arrangement. Hiding them in a menu reduces the ability to rapidly scan the options.

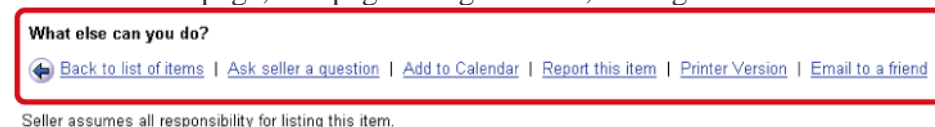


4. FOOTER NAVIGATION

Located at the bottom of the page, footer navigation is usually represented by text links. These often access a single page with no further levels of structure below them—a deadend, so to speak.

Traditionally, footer navigation contains supplementary information not pertinent to main topic of the site, such as copyright information, terms and conditions, and site credits. In this sense, footer navigation doesn't address a specific user need, but addresses a legal requirement for site owners. Footer navigation is often used as a catch-all for various types of content and it can lack consistency in an organizational scheme.

But footer navigation doesn't have to be insignificant. For instance, part or all of a site map can be included, as mentioned in Chapter 3. Related links and logical next steps may also be included. eBay.com offers task-based options at the end of item pages (Figure 4-15). These lead to various areas of the site across the hierarchy of pages. Amazon.com even shows visitors' history for a given session at the bottom of product pages. Other elements that may appear in a footer area include a Print This Page feature, an Email a Friend link, site help, the ability to comment on a page, and page rating features, among others.



[eBay Pulse](#) | [eBay Reviews](#) | [eBay Stores](#) | [Half.com](#) | [Popular Searches](#) | [Australia](#) | [Austria](#) | [China](#) | [France](#) | [Germany](#) | [India](#) | [Italy](#) | [Spain](#) | [United Kingdom](#)
[Kijiji](#) | [PayPal](#) | [ProStores](#) | [Rent.com](#) | [Shopping.com](#) | [Skype](#)

[About eBay](#) | [Announcements](#) | [Security Center](#) | [Policies](#) | [Site Map](#) | [Help](#)

Copyright © 1995-2006 eBay Inc. All Rights Reserved. Designated trademarks and brands are the property of their respective owners. Use of this Web site constitutes acceptance of the eBay [User Agreement](#) and [Privacy Policy](#).

The advantage of footer navigation is that it **doesn't intrude on site content or functionality**, potentially saving valuable real estate. Of course, links in a footer area may not be as visible as navigation elsewhere on the page. But as web users become savvier in general, scrolling longer pages becomes less problematic. Web designers can therefore make use of bottom-of-the-page navigation.

UTILITY NAVIGATION

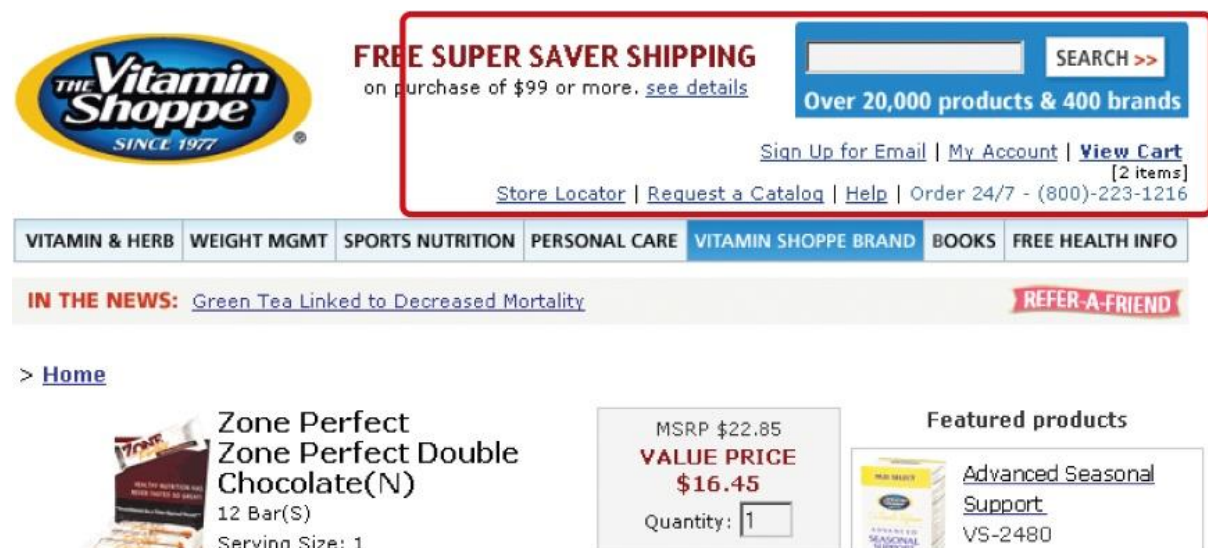
Utility navigation connects tools and features that assist visitors in using the site. These pages are generally not part of the main topic hierarchy of the site. For example, a link to a search

form or help pages aren't part of the main navigation or local navigation systems. Other options may not have a page associated with them at all. Instead, they are functions of the site, such as logging out or changing the font size.

Utility navigation may lead to varying page types or site functions. Transitions from page to page may be dramatic at times. For instance, from a single mechanism there may be links to a shopping cart, to a search form, and to a page about the site owner's organization—all quite different from one another, and potentially requiring significant reorientation on each new page.

Utility navigation is generally smaller than primary navigation mechanisms and appears on the top, sides, or bottom of the page. Global utility navigation quite often appears as simple text links. In some cases, the utility navigation is very closely related to the main navigation. As mentioned, utility navigation and main navigation often appear together in a global navigation area.

Figure 4-16 shows a fairly common utility navigation grouping found on Vitaminshoppe.com just above the main navigation bar. It includes a search input field, shopping cart link, help, and contact information.



The screenshot displays the top section of the Vitamin Shoppe website. On the left is the Vitamin Shoppe logo, which includes the text "THE Vitamin Shoppe" and "SINCE 1977". To the right of the logo is a red-bordered box containing utility navigation elements: a "FREE SUPER SAVER SHIPPING" banner with the condition "on purchase of \$99 or more. [see details](#)", a search bar with a "SEARCH >>" button, and a note "Over 20,000 products & 400 brands". Below these are links for "Sign Up for Email", "My Account", and "View Cart [2 items]". Further down are links for "Store Locator", "Request a Catalog", "Help", and "Order 24/7 - (800)-223-1216". Below the red box is a horizontal navigation bar with categories: "VITAMIN & HERB", "WEIGHT MGMT", "SPORTS NUTRITION", "PERSONAL CARE", "VITAMIN SHOPPE BRAND" (highlighted in blue), "BOOKS", and "FREE HEALTH INFO". Below this bar is a "IN THE NEWS:" section with a link to "Green Tea Linked to Decreased Mortality" and a "REFER-A-FRIEND" button. At the bottom left is a "> [Home](#)" link. The main content area features a product listing for "Zone Perfect Zone Perfect Double Chocolate(N)" with an image of the product, MSRP of \$22.85, a "VALUE PRICE" of \$16.45, and a quantity selector set to 1. To the right is a "Featured products" section with a link to "Advanced Seasonal Support" and the code "VS-2480".

But utility options aren't necessarily insignificant. For instance, on e-commerce sites, a shopping cart may appear in the utility options. This is obviously quite important for business.

There are many types of utility navigation, including:

- Extra-site navigation
- Toolboxes
- Linked logos
- Language and country selectors
- Internal page navigation

1. *EXTRA-SITE NAVIGATION*

Important for large corporations that may have diverse product areas or businesses, extra-site navigation links to other related sites, sub-sites, or companies. This type of meta-navigation allows people to switch to related web properties owned by a single provider.

Extra-site navigation is typically positioned at the top right of the page. Although generally quite small and represented as plain text, links in extra-site navigation may result in dramatic transitions. After all, they do lead to completely different sites. A common goal, however, is to make the navigation mechanism consistent across all sites. Unfortunately, these links are not always reciprocal, and the destination site may not link back to the originating site.

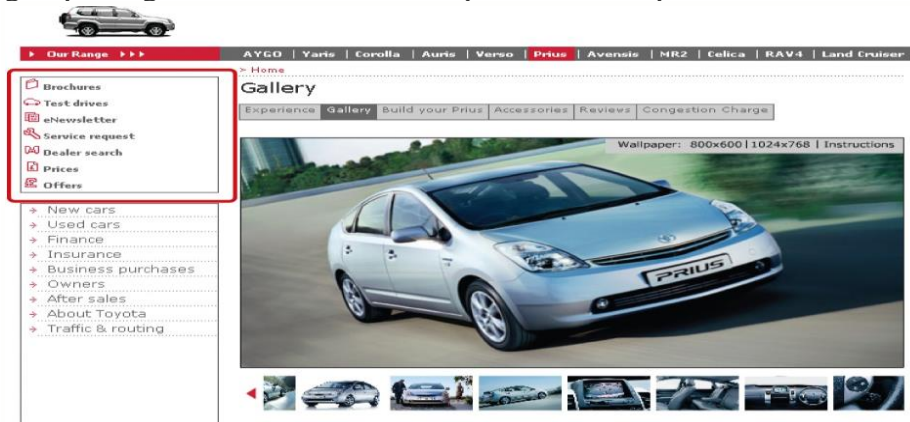
Figure 4-16 shows the extra-site navigation found on the top left of many Google.com sites, so users can move from product to product easily. Clicking the link in Figure 4-17 takes you from Google Mail to the Google Calendar and back quite easily. There is then a link to see more Google services at the end of the list.



2. *TOOLBOXES*

Toolboxes bring together site options that perform functions—"tools" for doing things on the site. Toolboxes may include links to content or navigation pages, but often they link to functional pages. For this reason, transitions from this type of navigation may be great, even dramatic. From the home page, for instance, a toolbar may link to a search feature, contact form, and online shop. This may require more effort in reorientation.

Figure 4-18 shows the toolbox navigation component from the Toyota UK web site (www.toyota.co.uk). This grouping of links is not thematically related; instead, they are grouped together because each link points to an important site function or tool.



3. LINKED LOGO

Web sites very often have a logo at the top of each page. It is customary to link the entire image itself to the home page. People may or may not know of this behavior, so some sites add an explicit label underneath or to the side of the logo. In general, linking the logo provides a predictable way to return to a familiar starting point. In some ways it is like an "undo" option within for the navigation process.

Because a Home option is often included in the global navigation, some sites have combined the two: the logo is incorporated in the navigation. Apple.com was one of the first to do this (Figure 4-19). Amazon.com also includes the logo in a main navigation tab, as does Toyota.com. This is an efficient way to save space and offer persistent visual branding throughout the site.



4. LANGUAGE SELECTORS

For sites that have sites in multiple languages, a language selector allows people to switch between them. Most often, visitors jump to the same web site, but in a different language. Sometimes, however, the local language site is completely different. Transitions may therefore be small or large. If there are only a few languages to select from, simple links at the top or bottom of the page may suffice.

5. COUNTRY OR REGION SELECTORS

In some cases, content may differ based on the country or market. A country selector allows visitors to pick their market region. Note that language selection and country selection are different activities. For instance, eBay sites in the U.S., U.K., and Australia all appear in English, but each has different products available in each version of the site. There may be legal requirements involved here as well.

Large international organizations may have dozens of localized web sites. Country selection is more complicated in these cases. Sometimes country selection is done visually with a clickable world map. This, of course, assumes that people can identify the country they want on the map. Here, unlike for language selection, it is acceptable to use images of national flags.

The country selector on the Coca-Cola site (www.cocacola.com, Figure 4-20) takes a two-pronged approach: The map is clickable by region, but there is also a navigation to select a country from an alphabetical list on the right.



INTERNAL PAGE NAVIGATION

Also called: anchor links, jump links.

Some web pages can be very long. In these cases, it may be advantageous to add internal page links that allow people to jump from one section of a page to another. Internal navigation links basically scroll the page up or down, providing a more efficient way of reaching sections of a longer page. It's customary to then provide a reciprocal link back to the top, so internal page navigation tends to come in pairs of links.

1 About the CSS 2.1 Specification

Contents

- [1.1 CSS 2.1 vs CSS 2](#)
- [1.2 Reading the specification](#)
- [1.3 How the specification is organized](#)
- [1.4 Conventions](#)
 - [1.4.1 Document language elements and attributes](#)
 - [1.4.2 CSS property definitions](#)
 - [1.4.2.1 Value](#)
 - [1.4.2.2 Initial](#)
 - [1.4.2.3 Applies to](#)
 - [1.4.2.4 Inherited](#)
 - [1.4.2.5 Percentage values](#)
 - [1.4.2.6 Media groups](#)
 - [1.4.2.7 Computed value](#)
 - [1.4.3 Shorthand properties](#)
 - [1.4.4 Notes and examples](#)
 - [1.4.5 Images and long descriptions](#)
- [1.5 Acknowledgments](#)

1.1 CSS 2.1 vs CSS 2

The CSS community has gained significant experience with the CSS2 specification since it became a recommendation in 1998. Errors in the CSS2 specification have subsequently been corrected

Multipurpose Internet Mail Extension/MIME

A multipurpose internet mail extension, or MIME type, is an internet standard that describes the contents of internet files based on their natures and formats. This cataloging helps the [browser](#) open the file with the appropriate extension or plugin. Although the term includes the word "mail" for [electronic mail](#), it's used for web pages, too.

Defining MIME Types

MIME types contain two parts: a type and a sub-type.

- The **type** describes the categorization of MIME types linked to each other.
- In contrast, a **subtype** is unique to a specific file type that is part of the type.

Here is the MIME type for HTML:

```
text/html
```

Browser extensions, plug-ins, and add-ons are generally similar; they are software components that add features to an existing computer program. This can be part of a stand-alone app or part of an internet browser.

For example, a browser extension expands a web browser's functionality by installing specific toolbars, adding buttons or links, or providing other useful functions, like pop-up blocking. A browser extension operates just like any other software, except certain browsers, such as Firefox™ or Chrome, place limits on what they do.

What is a Browser Plug-in?

Browser extensions and plug-ins are generally similar: they are software components (sometimes called "add-ons") that add features to an existing computer program. A plug-in functions a little bit differently, allowing websites to embed and render content through the use of software such as Adobe®, Java®, QuickTime®, or Microsoft® Silverlight. These plug-ins allow you to do things in your browser such as view PDF files or watch videos on sites such as Netflix®

What do extensions and plug-ins do?

Applications and browsers support extensions, add-ons, and plug-ins for multiple reasons: to allow third-party developers to create specific functions, to easily add new features, and to expand functionality.

Legitimate application extensions and plug-ins include add-ons that can encrypt and decrypt email, emulate video game consoles, process or analyze sound, and provide text editors. Legitimate browser extensions and plug-ins include search toolbars, media players, and text readers.

These extensions and plug-ins can be very useful and, when developed by an authorized company, safe and harmless to download.

Common MIME types

This topic lists the most common MIME types with corresponding document types, ordered by their common extensions.

The following two important MIME types are the default types:

- text/plain is the default value for textual files. A textual file should be human-readable and must not contain binary data.
- application/octet-stream is the default value for all other cases. An unknown file type should use this type. Browsers are particularly careful when manipulating these files to protect users from software vulnerabilities and possible dangerous behavior.