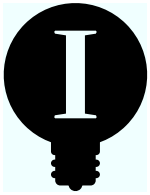


Chapter 17

Discoverability

Designers use *Discoverability* to mean whether users will be able to find and use a feature. Discoverability is important—from the user's point of view, there's no difference between a feature she can't find or can't use and one that doesn't exist.

17.1 What to Make Discoverable

Discoverability often involves a trade-off. Make one thing more discoverable, and it may detract from other things. So, you want to start by deciding which features to make more discoverable and (conversely) which parts of your product you can make less discoverable. Sometimes it's even OK to hide a feature if you know that the people who require that feature will be able to find out how to use it.

For example, a lot of browsers ship with features used only by web developers. These features are turned off by default, but the target audience is assumed to be capable of finding out that the features exist and knowing how to activate them. As Figure 17.1, on the next page shows, in Safari this involves opening the settings window, switching to the Advanced tab, and checking the "Show Develop menu in menu bar" checkbox.

Once you've decided which features must be easily discoverable and which ones can be relegated to the background, you need to assign weights to the important features. You can't make every feature equally obvious.

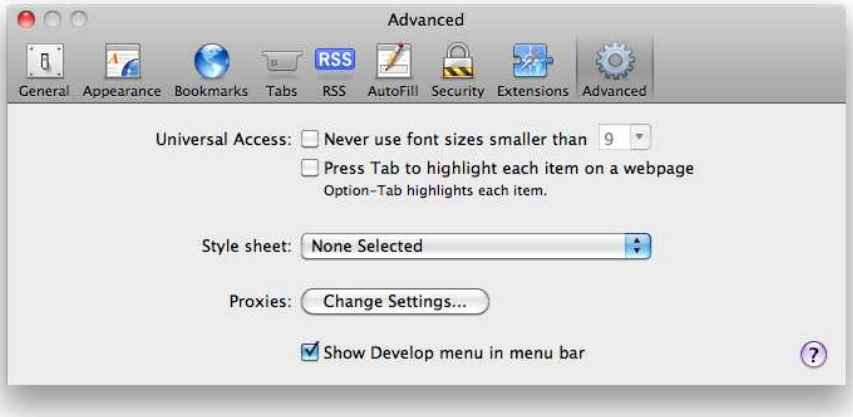
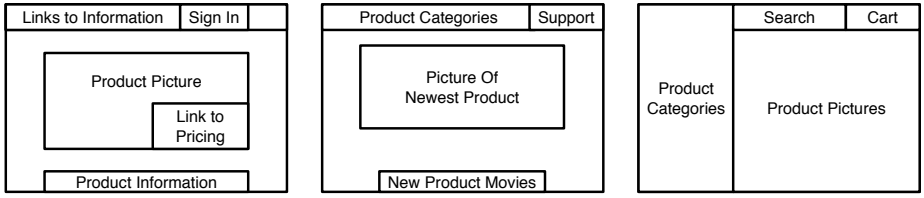


Figure 17.1: Enabling developer tools in Safari

Let's look at some examples. Here's the basic structure of three popular websites:



37signals' Basecamp home page puts the greatest emphasis on acquiring new customers; plans, pricing, and features take center stage. Less weight is given to things like support and the "Sign in" link.

Apple puts its most recent product in the spotlight. Some room is given to a navigation bar that allows people to reach other products; very little room is given to other elements.

Amazon puts a lot more weight on navigation, providing a lot of room for product categories and a search feature. Since Amazon sells so many different items, making navigation and search easily discoverable is the primary goal of the home page.

You should start by looking for important features and make it a priority to make them discoverable. You should also think about a feature's

target audience. If the target audience is experienced with the subject matter, it may be OK to make the feature a bit less discoverable and trust the user's ability to find it.

In 37signals' and Apple's case, the designers probably assumed that the features aimed at existing customers can be a bit less obvious, since these people already know where to find them. Potential new customers have less experience with the site, so features aimed at them are given more weight.

Then, there are cases where you can make features less discoverable because they're not strictly essential and because people are likely to find out about them in some other way. For example, "pinching" an image on an iPhone to zoom in or out is not easily discoverable, but you don't need to know about this feature to use an iPhone. Plus, the feature is so compelling that people who know about it tell people who don't, creating an avenue for discovering the feature that is external to the application itself. The "pinch-to-zoom" feature is so simple that people easily remember it once they've seen it, and it works consistently in many different apps. So, once people have learned to use it, they're unlikely to forget that it exists.

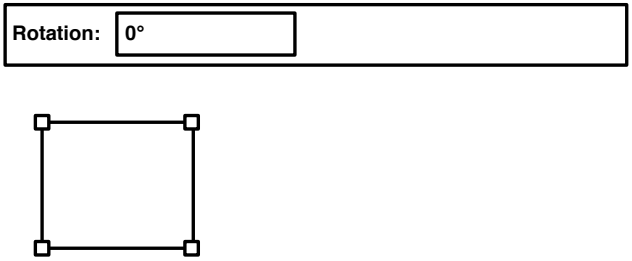
To recap, you can make a commonly used feature less discoverable if

- People can get along just fine without knowing that the feature exists.
- They're likely to find out about the feature even if it's not directly discoverable.
- The feature is compelling, simple, and used consistently so people will remember it once they've learned it exists.

17.2 When to Make Things Discoverable

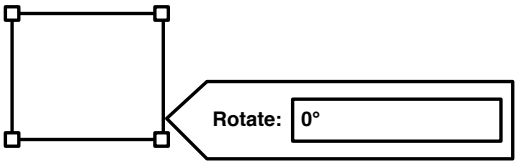
Not every feature of your product is relevant at all times. So after you've decided which features should be discoverable, you should decide *when* they need to be discoverable.

One way to do this is to use contextual or modal user interfaces. Let's see how this could work for a vector graphics editor. Your users probably want to be able to rotate objects, so you need to add a "Rotation" property to your toolbar or inspector window:



But now you need a toolbar or an inspector window. And you need to make sure that the "Rotation" property is disabled when the user hasn't selected anything. In other words, you're adding user interface elements that are cluttering the user interface, regardless of whether the user has even selected something.

Another approach would be to assume that the "Rotation" property needs to be discoverable only once the user has selected the object. One approach would be to include a set of transient properties stored in a small pop-up element that appears only when the user selects an object that supports these properties.



(Of course, to determine whether they work, we need to test these kinds of ideas with users.)

17.3 How to Make Things Discoverable

So far, we've considered the importance of the things in your product, and we've thought about *when* they are important. Now, let's take a look at what you can do to make these things discoverable.

Spatial Properties

You can use properties such as size, position, form, and color to make individual elements of your application more (or less) discoverable. The bigger something is, the more easily discoverable it is. By putting things at the top or down the left side of a screen or window, you make

Color

Recently, there's been a bit of a trend toward using less color in user interfaces. Apple's iTunes, for example, has replaced its colored icons with monochrome ones.

From a usability perspective, using color is beneficial. Colors make things easier to perceive. Our brains are really good at doing tasks such as "find the *green* icon on this screen." In *Information Visualization* (War04), Colin Ware notes that color is "preattentively processed," meaning that we identify color before we give it conscious attention. In other words, when we look at a user interface, we can find and identify user interface elements with a specific color really quickly and easily.

Do use color (for example, to make it easier to differentiate between icons), but don't rely *solely* on color. Not everybody can see color perfectly.

them more discoverable.[1] Certain colors (most notably red) make things appear more important. Conversely, you can use these properties to de-emphasize things you consider to be less important but still need to put somewhere visible.[2]

User Expectations

Once people have used your product for a while, they will get a feel for where the important parts are. Be consistent. Use the same kind of arrangement for every screen. Don't put the important things on the left of the screen in one layout and on the right in the next.

Similarly, if the user has an established mental model of how your product works, she probably has pretty strong opinions on where things should be. Often you can use this expectation to make things more (or less) discoverable. (For more on this topic, read Chapter 9, *The Mental Model*, on page 77.)

1. Jakob Nielsen calls this the "F-Pattern" because in eye-tracking studies, the heat maps created by measuring what people actually focus on when reading websites looks like a giant *F* superimposed over the user's screen. You can see examples at http://www.useit.com/eyetracking.
2. Neutral colors are also used for user interfaces in content creation applications. We don't want a colorful user interface to influence how people perceive their pictures in, say, a photo-editing tool.

Search

When people can't discover things immediately, they may turn to your product's search feature, provided they can find it. To help your users with search, you need to do these three things:

- Provide a search feature.
- Make the search feature itself discoverable.
- Make sure the search feature returns useful results.

The last point is often the hardest. Fortunately, you may be able to draw from the card sorts you did way back in Chapter 7, *Hierarchies in User Interface Design*, on page 58. This help comes in the form of feedback on terminology. What kinds of words did people use back then? If people put these words into your search engine, will they get the results they expect?

Another way of improving search results is to pay attention to how people use search once it's available to them. Especially pay attention to search terms that return zero or few results or to situations where the user searches for something, the site returns results, but the user doesn't click any of them.

Animations

Animations are your most powerful tool for drawing a user's attention. Use them wisely and sparingly; never use animation for things that are visible over longer periods of time. You can read more about animations in Chapter 15, *Animations*, on page 145.

Takeaway Points

- Decide which things need to be easily discoverable and which ones can be tucked away somewhere. Then, assign weights to the things that you decide to make discoverable, and design accordingly.
- Keep in mind that not every feature has to be available at all times. Different things can be discoverable at different times.
- Use your visual layout, a good search function, and (in rare cases) animations to make things discoverable.