

# The Psychology of Web Design

and putting it into practice . . .

By Peter Prestipino

There are few things more important to a successful website than its design. In many respects, it's the window to the soul of an Internet business as well as the people behind it. Portals busy with too many elements fail, in that they attempt to express too much, confuse visitors and make interaction stressful. On the other hand, those which are too barren or sparse fail to build trust or convey purpose with users clearly. Is there a successful middle ground? A virtual place where satisfying end-user needs and designer creativity meet to fulfill the objectives of those running a website? That balance is certainly the goal, but how do we (the collective of Web professionals) get there without alienating either essential group?

There are, or perhaps should be, two schools of thought in the psychology of Web design; should our experiences influence design choices or should end-users (and their demographics, psychographics and needs) determine how websites and applications are designed and developed? The difference might be arbitrary to some, but they can have a profound effect on how your site performs. Do you listen to the actions of your users as they interact with your site or do you, as a designer (or as the one responsible for its success), dictate best practices? Clearly, this can be a challenging choice for a designer. Yes, a designer's job is to build a Web page or website to fulfill the objective of the client which meets or parallels the existing brand (and its customers affinity

create certain thoughts. Successful designers achieve this symbiosis. But there are many challenges — cost, purpose, guidelines, and environment, not to mention the many platform limitations.

Web designers express the objective of a website (without copy) through layout, form, color and theme. To provide designers with the best possible canvas to help achieve the objectives and goals set forth, it is essential to address the psychology of design from the perspectives of purpose, balance and branding — often where genuine psychology comes into play. Those able to romanticize the experience while remaining in line with fundamental artistry achieve a certain mastery of design psychology and provide a website with dramatically better odds of success.

for it), but are users' needs superseded in doing so? If the answer to that question is yes, are we risking the loyalty of existing clients or even worse, prospects? And how do our choices affect revenue?

In a perfect world, there would be a balance between properly satisfying the needs of the brand and creating an appealing Web presence that drives users to take specific actions, feel certain emotions, and

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## No Page Is an Island

It used to be that the index, or home page of a website was the most important piece of your entire Internet property. But thanks to the increased sophistication of search engines and their broadening indices (as well as the popular rise and use of landing pages in all things Internet marketing) this is no longer a hard and fast rule. In fact, since search engines, social networks and individuals can send Web users to virtually any area of a website (predefined or not), it is more essential than ever before to make strong first impressions, regardless of the drop-off point for visitors.

The questions designers must ask themselves, considering the fact that “no page is an island,” is: How do individual pages relate to the overall purpose of the site itself and, in turn, how do these pages relate to the user?

If our aim is to sell merchandise, secondary and even tertiary pages must meet our underlying purpose in some capacity — perhaps by giving the “add to cart” button a location high on the page. If the business objective is to sell exclusive (not found elsewhere) content, featuring multiple advertising units runs counter to the concept of conveying credibility and makes the principal focus of a design unclear for users. This ultimately decreases the chances that end-users will make a purchase. In any context, straying too far from the core mission of the website (no matter how good of an idea it may seem) can be detrimental. To achieve consistency and saliency of purpose, the rule should always be to analyze each element appearing on each page to determine its likelihood of distracting visitors. Do you really need another third-party widget? Which elements of our CMS force users to take an action that is counter to the action we really want them to take? Asking these questions might reveal deeper site issues than you previously thought.

Once the site visitor has seen the main/index page of the site and is interested enough to venture deeper, presenting navigational cues (textual and graphical) should become a primary purpose of pages. After all, the visitor is coming to the site in search of something to see, read, hear or purchase — or all of these things combined. Getting users to this content as quickly as possible is a priority, and there are several different ways to do this depending on your visitors’ preferences. For example, popular blogging and CMS system WordPress ([wordpress.org](http://wordpress.org)) features many plugins to help users find the most popular content, recent content and even content related to the page the end-user is currently viewing. The result is more interaction.

## Giving Genuine Meaning to Whitespace

White space, often referred to as negative space in design circles, is the portion of a page left empty or unmarked — essentially, just unused space. There is a purpose for white space, however, and many consider it a vital graphic element in Web page design. White space is not about increasing margins, paragraph spacing and the space between sections. Expert use of white space helps a designer achieve balance, provides a sense of elegance through simplicity, and focuses the reader’s eye on a desired part of the page. Most of all, white space provides a sense of breathing room for the viewer.

The concept of whitespace, however, can seem counterintuitive to many website managers or inexperienced designers. Wouldn’t it simply be better to include more content to tell the story, promote a product and feed search engine spiders? More content is usually better, but the presentation of your content has a major impact on how it is consumed, if at all. When the spacing of characters is small, margins are wide and paragraphs run together, copy becomes a much less effective tool to convey the intended purpose of the page to end users. People don’t typically react well to rooms full of clutter, so why would they with a Web page? Part of this sort of response has to do with how we associate open space with emotional or physical comfort, and our basic human survival instincts — when we feel spatially constricted our primary concern is finding a way out. Often referred to as fight-or-flight, this response comes down to one result on the Web — leaving the website. And once a user feels threatened and leaves with a bad impression, they won’t likely return. But when spaces are comfortable, users feel safe and more open to the power of suggestion.

Designers can influence decisions by discovering which areas of a website are of the most importance, and which are better left to secondary pages, or not included at all. The easiest way to uncover this essential information (though there is an investment of time) is through the implementation of heat maps — a graphical representation of where clicks occur on a two-dimensional map of a website. Popular services include

## Live By the Tagline:

A tagline is a statement or a motto that represents a company’s, or in our case a website’s, philosophy and mission. It should be the most obvious element on a website’s front page and clearly describe the website in one phrase. Statistics show that a website has just eight seconds to capture a visitor’s attention and cue them to browse the site further. Without a clear tagline a website will have a hard time keeping visitors long enough to browse the inner pages.

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# The Many Flavors of Site Search

People have different methods of finding content on a website. Some scour HTML sitemaps, others scan the home page, while still others pound away at their keyboards through the site search box. Site search engines provide users with a simple and convenient way to locate products using the terms with which they are most familiar. When users can easily find what they want, they are more likely to buy — and in the end, that is what all Internet retailers want.

## Site Search Recommendations

When users conduct a search on a website, they typically look for a text field where they can enter their term(s). According to Jacob Nielsen's Web usability tips, this search box (or field) should be no less than 27 characters wide in order for the text to be clearly visible and easy to use. Another recommendation is to place the search text field on the top of the page, because users tend to search a website according to the "F" pattern, (from top left to the bottom right). Include a button clearly labeled "Search" and not text such as "Go" or "Submit," as these expressions tend to mislead website visitors.

## Site Search Tools & Resources

There are a variety of site search tools and resources available to Web professionals; some come standard with existing content management systems, others are stand-alone scripts and some are robust solutions with customization features galore. Which is right for your enterprise?

**Google Site Search** is easy to plug in, and the resulting user experience is so familiar to end-users that it has fast become a mainstay on many sites around the Web. It also has the advantage of an additional revenue stream for publishers through PPC advertising. But there are many — some would argue better — site search products available, all aiming to take a bite out of Google's market share.

**Yahoo! Vertical Lens** is part of the new and highly-touted Build Your Own Search Service (BOSS) platform, and allows developers to

create site search engines that go beyond Google's plug-and-play offering. Among the features are real-time indexing of proprietary content, customized ranking (Vertical Lens allows sites to fine-tune the algorithm to fit their audience and user experience), and structured search, supporting faceted refinement of searches. For example, the Vertical Lens offering can blend standard Web results with proprietary content in a single search display. Should Yahoo! refine the offering to make it accessible to a greater number of Web professionals, the power of Vertical Lens could make it a viable contender in the world of site search.

**EveryZing's ezSearch** is a universal site search solution that indexes and searches multimedia content. Features of the hosted software-as-a-service solution include full customization of search results, multiple content format and ingestion capabilities (including crawling, feed-based and stream-capture), time-stamping of every word in the index, blended results, faceted navigation based on custom attributes and keyword merchandising capabilities. Ideal for Web properties with lots of video, EveryZing could well become the standard in site search for multimedia content.

**Omniture's SiteSearch** is another product that puts the world of on-site search into the hands of those in constant pursuit of ensuring the right information is presented to website visitors. More importantly, it tracks the experience for merchants on a granular level. Users of Omniture can promote top-performing products and content in results using pre-defined business rules and analytics-based performance metrics such as conversion, revenue and page views, resulting in a more dynamic search experience while providing merchants with detailed intelligence on visitor behavior. For the analytics-conscious Web professional, there is no better site search solution on the market.



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CrazyEgg.com (commercial) and ClickHeat (open-source) from LabsMedia (labsmedia.com/clickheat/), although most de facto analytics solutions feature this capability out of the box. With a graphical representation of viewer clicks, underperforming areas can be replaced with white space to direct users to focus on the desired portion of the page. Of course, testing different elements is always suggested before making a sweeping change to a website.

For designers, convincing a client to leave a portion of their site unused can be a struggle. The client may need to be

reminded of how the layout of the structure and content should address the specifics of influencing how viewers approach, consume, and act on the page. In other words, remind the client that their page should be designed to produce one primary action. If a client has trouble understanding the value of certain design elements like white space, the designer should make every effort to demonstrate its value through tools like heat maps, case studies, testimonials or simply presenting different versions of the page to several decision makers at one time.

## Trust and the Theory Behind Color

Trust is defined\* as, "the reliance on the integrity, strength, ability, surety, etc. of a person or thing." In relation to Web design, it involves honesty and competence, and a subtle, yet powerful way to achieve that elusive trust factor is through the use of color.

Color theory is a set of principles used to create harmonious color combinations, or color schemes. When determining which color is right for a website, you are not just choosing one color (e.g. make it blue). Your designer will actually be choosing and applying an entire color scheme to a website. Knowing the types of classic color schemes is essential when influencing an end-product.

Monochromatic color schemes use variations in lightness and saturation of a single color, whereas analogous color schemes use colors that are adjacent to each other on the "color wheel." There are many types of classic color schemes (complimentary and split-complimentary, triadic and tetradic) so let's instead look at the basics of the colors themselves and how they are perceived by end-users.

Red is considered to be an emotionally intense color. While red is commonly associated with danger, it is also used to stimulate people to make quick decisions. Red is highly visible, so using it to bring text and images to the forefront makes it a perfect color for "buy now" or "add-to-cart" buttons.

While not as aggressive as red, orange is also a highly visible color, ideal for calling attention to or highlighting the most important elements of a design, without causing stress.

Yellow produces a warming effect, arouses cheerfulness, stimulates mental activity, and generates muscle energy. Use

yellow to evoke pleasant, uplifting feelings. You can choose yellow to promote children's products and items related to leisure. Use yellow carefully however, as a dull yellow represents caution.

Green is the color of nature — symbolizing growth, harmony, and fertility. Green has a strong emotional link with safety and is considered to be the most restful color for the human eye. Green suggests stability and endurance, making it a perfect fit for finance-related design, but is also used to indicate safety, making it a viable choice for medical-related design.

Blue, often associated with stability, symbolizes trust, wisdom and confidence. Blue has been shown to produce a calming effect and is often used to promote products and services related to cleanliness. More accepted by males than females, it is a preferred color for corporate America.

Black typically carries a negative connotation but carries with it a feeling of perspective and depth. Strength and authority are also attributed to black. Although black backgrounds diminish readability, combined with other intense colors such as red, they remain aggressive and unique, good for attracting a risk-taking mindset.



\* Dictionary.com

## Life With (and Beyond) jQuery

If you're a subscriber to *Website Magazine's* bi-weekly Design and Development Digest, you are familiar with jQuery (and its many plugins), a lightweight JavaScript library that emphasizes interaction between JavaScript and HTML. While it's one of our favorite ways to add some real punch to your website and make the on-site experience for users that much richer (search 'jQuery' at WebsiteMagazine.com), there are many solid alternatives in use by designers and developers worldwide. Let's look at three, in MooTools, YUI and the Prototype JavaScript Framework.

The Prototype JavaScript Framework provides an Ajax framework (and other utilities) implemented as a single file of JavaScript code, usually named `prototype.js`. Prototype is distributed standalone ([prototypejs.org](http://prototypejs.org)), but also as part of larger projects such as Ruby on Rails, [script.aculo.us](http://script.aculo.us) and Rico. Prototype provides various functions for developing JavaScript applications, and features range from programming shortcuts

to major functions for dealing with XMLHttpRequest.

The Yahoo! UI Library (YUI) is an open-source JavaScript library for building rich, interactive Web applications using techniques such as Ajax, DHTML and DOM scripting. YUI includes several core CSS resources and is actively developed by a team of Yahoo! engineers. The YUI project ([developer.yahoo.com/yui/](http://developer.yahoo.com/yui/)) includes the YUI Library and two build-time tools: YUI Compressor (minification) and YUI Doc (documentation engine for JavaScript code.)

MooTools ([mootools.net](http://mootools.net)) is another open-source jQuery alternative. The compact JavaScript framework is designed for the intermediate to advanced JavaScript developer and is both extensive and modular, giving developers the ability to choose components appropriate to the project. It allows you to write powerful, flexible, and cross-browser code with its elegant, well documented, and coherent API.

## On the Importance of Image and Branding

Brands play a major role in the success of all organizations, both online and in the brick-and-mortar world. But too often, the branding of a Web businesses falls by the virtual wayside. While it's smart to focus on the value proposition of the actual service, image is everything. You might initially struggle to explain the essence of your own brand, but it's worth every effort. The most notable brands convey a certain cultural significance, a shared lifestyle and, most importantly, an attitude. Coca-Cola, one of the most identifiable brands on the planet, has branded to the point where it is much more of a culture than a product.

If exceptional businesses are supported by great brands, then bad businesses fail because of poorly conceived brands. In hyper-competitive markets where "getting online" takes little money and even less time, those with the ability to differentiate themselves can rise above the noise and create an enterprise of significant consequence.

Branding is, of course, a lifetime pursuit but it begins on a small scale. Those most successful in design branding understand that logos communicate the essence of an organization and invest heavily in their development. The same holds true

for branding colors (Coca-Cola red, for example) and design elements consistent throughout the brand (Coca-Cola's cursive lettering.) On an even smaller scale, a website's favicon (the tiny image in a browser bar) can instantly add credibility to a website before the user even becomes familiar with the brand.

Clients' aims and desires are always relevant to a site design project, but hopefully the preceding information helps show that individual client preferences should often take a back seat to proven design principles and user expectations of websites. The client's investment of trust in the designer can pay high dividends when it comes to design and branding issues. So, rather than merely being the production of online decoration, Web design is an effort of direction and communication.

Web design is not something that should be engaged in lightly. The goal is to strike a balance between client preferences, design principles, and trial-and-error tests based on end-user analytics data. Perhaps it is best not to view Web design as a one time, beginning-to-end project but rather as a continual work in progress. At no point will the preferences of the client, the designer, and the end-user all coalesce perfectly. But that's fine as long as they can come close enough to guide visitors to established objectives — a goal common to all parties involved. ■