



BEST OF

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Founded in September 2006, [Smashing Magazine](#) delivers useful and innovative information to Web designers and developers. Smashing Magazine is a well-respected international online publication for professional Web designers and developers. Our main goal is to support the Web design community with useful and valuable articles and resources, written and created by experienced designers and developers.

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Preface

Some things take fate in their own hands. They demand patience and reward hard work; they require you to stay focused and demand you to trust your instincts; they raise your hopes and tear you apart. But what matters most is: they help you grow.

When we started Smashing Magazine five years ago, we hadn't expected anything. We didn't have a grand master plan for a successful online magazine for designers and developers. We created something that we found useful and that we thought others would find useful, too.

And then you came along.

You passed the word, you left a comment, you dropped an email. You let us know that we matter. You let us know that we are doing something meaningful. And you let us know that our humble work deserves your attention. And we listened; we listened carefully.

Five years have passed, and the magazine has changed. A small, obscure lists blog has evolved into a professional publication with a publishing policy, editorial plans, in-house style guide as well as a dedicated team of experienced authors, research assistants, advisory board experts, editors and proofreaders.

Smashing Magazine is a dedicated, passionate team, but it is also you — you and every single reader who have been reading Smashing Magazine for all those years. Thank you for being with us; we could not exist without you.

This eBook is our humble gift to you for your support, criticism and encouragement over all these years. It contains the best — most useful, most interesting or most inspiring — articles that have been published on Smashing Magazine over the last five years. They have been carefully edited, proofread and updated for your convenience and a pleasing reading experience.

Cheers, dear friends, and here is to the next five years!

Vitaly Friedman, editor-in-chief of Smashing Magazine

30 Usability Issues to Be Aware of

By Vitaly Friedman, October 9th, 2007

You don't have to agree upon everything. As a professional web developer you are the advocate of your visitors' interests and needs; you have to protect your understanding of good user experience and make sure the visitors will find their way through (possibly) complex site architecture. And this means that you need to be able to protect your position and communicate your ideas effectively — in discussions with your clients and colleagues. In fact, it's your job to compromise wrong ideas and misleading concepts instead of following them blindly.

In this context nothing can support you more than the profound knowledge of fundamental issues related to your work. But even if you know most of them it's important to know how to name these concepts and how to refer to them once they appear in the conversation. Furthermore, it's always useful to have some precise terms ready at hand in case you might need to use them as an argument in your discussions.

In this article we present 30 important usability issues, terms, rules and principles which are usually forgotten, ignored or misunderstood. What is the difference between readability and legibility? What exactly does 80/20 or Pareto principle mean? What is meant with minesweeping and satisficing? And what is Progressive Enhancement and Graceful Degradation? OK, it's time to dive in.

Usability: Rules and Principles

7±2 Principle

Since human brain has some limits on its capacity for processing information, this phrase deals with complexity, dividing information into chunks and units. According to George A. Miller's studies, humans' short term memory can retain only about 5-9 things at one time. This fact is often used as an argument for limiting the number of options in navigation menus to 7; however there is heated debate about [The Myth of "Seven, Plus or Minus 2"](#). Therefore it's not clear how the 7±2 Principle can, could or should be applied to the Web. [Miller's studies](#).

2-Second-Rule

A loose principle that a user shouldn't need to wait more than 2 seconds for certain types of system response, such as application-switching and application launch time. The choice of 2 seconds is somewhat arbitrary, but a reasonable order of magnitude. Reliable principle: the less users have to wait, the better the user experience. [[UF](#)]

3-Click-Rule

According to this rule users stop using the site if they aren't able to find the information or access the site feature within 3 mouse clicks. In other words, the rule emphasizes the importance of clear navigation, logical structure and easy-to-follow site hierarchy. In most situations the number of clicks is irrelevant; what is really important is that visitors always know where they are, where they were and where they can go next. Even 10 clicks are OK if users feel that they have a full understanding of how the system works.

80/20 Rule (The Pareto principle)

The Pareto principle (also known as *the law of the vital few* and *the principle of factor sparsity*) states that 80% of the effects comes from 20% of the

causes. This is the basic rule of thumb in business (“80% of your sales comes from 20% of your clients”), but can also be applied to design and usability. For instance, dramatic improvements can often be achieved by identifying the 20% of users, customers, activities, products or processes that account for the 80% of contribution to profit and maximizing the attention applied to them. [[Wikipedia](#)]

Eight Golden Rules of Interface Design

As a result of Interface Design Studies, Ben Shneiderman proposed a collection of principles that are derived heuristically from experience and applicable in most interactive systems. These principles are common for user interface design, and as such also for web design.

1. Strive for consistency
2. Enable frequent users to use shortcuts
3. Offer informative feedback
4. Design dialog to yield closure
5. Offer simple error handling
6. Permit easy reversal of actions
7. Provide the sense of control
8. Reduce short-term memory load

You can learn more details about Shneiderman’s Rules For Design in [Wikipedia: Shneiderman’s rules for design](#).

Fitts' Law

Published by Paul Fitts in 1954, Fitts' law is a model of human movement which predicts the time required to rapidly move to a target area, as a function of the distance to the target and the size of the target. The law is usually applied to the movement of the mouse visitors have to perform to get from point A to point B. For instance, the rule can be important to place the content areas in a more usable way to maximize their accessibility and improve click rates.

Inverted Pyramid

The inverted pyramid is a writing style where the summary of the article is presented in the beginning of the article. This approach makes use of the "waterfall effect" well-known in journalism where writers try to give their readers an instant idea about the topic they're reporting. The article begins with a conclusion, followed by key points and finally the minor details such as background information. Since web users want instant gratification, the inverted pyramid style, [as supported by Nielsen](#), is important for web writing and for better user experience.

Satisficing

Web users don't prefer optimal ways to find the information they're looking for. They aren't interested in the most reasonable and sound solution to their problem. Instead they permanently scan for quick'n'dirty-solutions which are "good enough". In the case of the Web, satisficing describes exactly this approach: users settle with a solution to a problem that is "good enough" — even if alternative solutions can better fulfill their requirements in a long run. [\[I-D\]](#)

Psychology Behind Usability

Baby-Duck-Syndrome

Baby Duck Syndrome describes the tendency for visitors to stick to the first design they learn and judge other designs by their similarity to that first design. The result is that users generally prefer systems similar to those they learned on and dislike unfamiliar systems. This results in the usability problems most re-designs have: users, used to the previous design, feel uncomfortable with new site structure they have to find their way through.

Banner-Blindness

Web users tend to ignore everything that looks like advertisement and, what is interesting, they're pretty good at it. Although advertisement is noticed, it [is almost always ignored](#). Since users have constructed web related schemata for different tasks on the Web, when searching for specific information on a website, they focus only on the parts of the page where they would assume the relevant information could be, i.e. small text and hyperlinks. Large colorful or animated banners and other graphics are in this case ignored.



Source: *Banner Blindness: Old and New Findings*

Cliffhanger-Effect (Zeigarnik-Effect)

Human beings can't stand uncertainty. We tend to find answers to unanswered questions we are interested in as soon as possible. Cliffhanger-effects are based upon this fact; movies, articles and plots with Cliffhanger-effects have an abrupt ending, often leaving with a sudden shock revelation or difficult situation. The effect is often used in advertisement: asking the

visitors unanswered and provocative questions advertisers often tend to force them to read the ad, click on the banner or follow a link.

Discovered by Bluma W. Zeigarnik in 1927, this effect establishes an emotional connection with readers and is extremely effective in terms of marketing. Visitors can better remember what the ad is about and even the smallest details are stored more clearly and precisely. In Web writing the Cliffhanger-effect is also used to bind the visitors to a web-site (e.g. "Grab our RSS-Feed to ensure you don't miss the second part of the article!").

Gestalt principles of form perception

These principles are the fundamental rules of human psychology in terms of human-computer-interaction-design.

- **The law of proximity** posits that when we perceive a collection of objects, we will see objects close to each other as forming a group.



A real-world [example](#) of the law of proximity from MTV Music Awards 2002.

- **The law of similarity** captures the idea that elements will be grouped perceptually if they are similar to each other.
- **The Law of Prägnanz (figure-ground)** captures the idea that in perceiving a visual field, some objects take a prominent role (the figures) while others recede into the background (the ground).



The [Macintosh logo](#) can be viewed as a regular happy face and a happy face in profile (looking at a computer screen).

- **The law of symmetry** captures the idea that when we perceive objects we tend to perceive them as symmetrical shapes that form around their center.
- **The law of closure** posits that we perceptually close up, or complete, objects that are not, in fact, complete.



We perceive the letters 'I', 'B', and 'M' although the shapes we see, in fact, are only lines of white space of differing length hovering above each other. [Source](#).

You can find more information in the article [Gestalt principles of form perception](#)

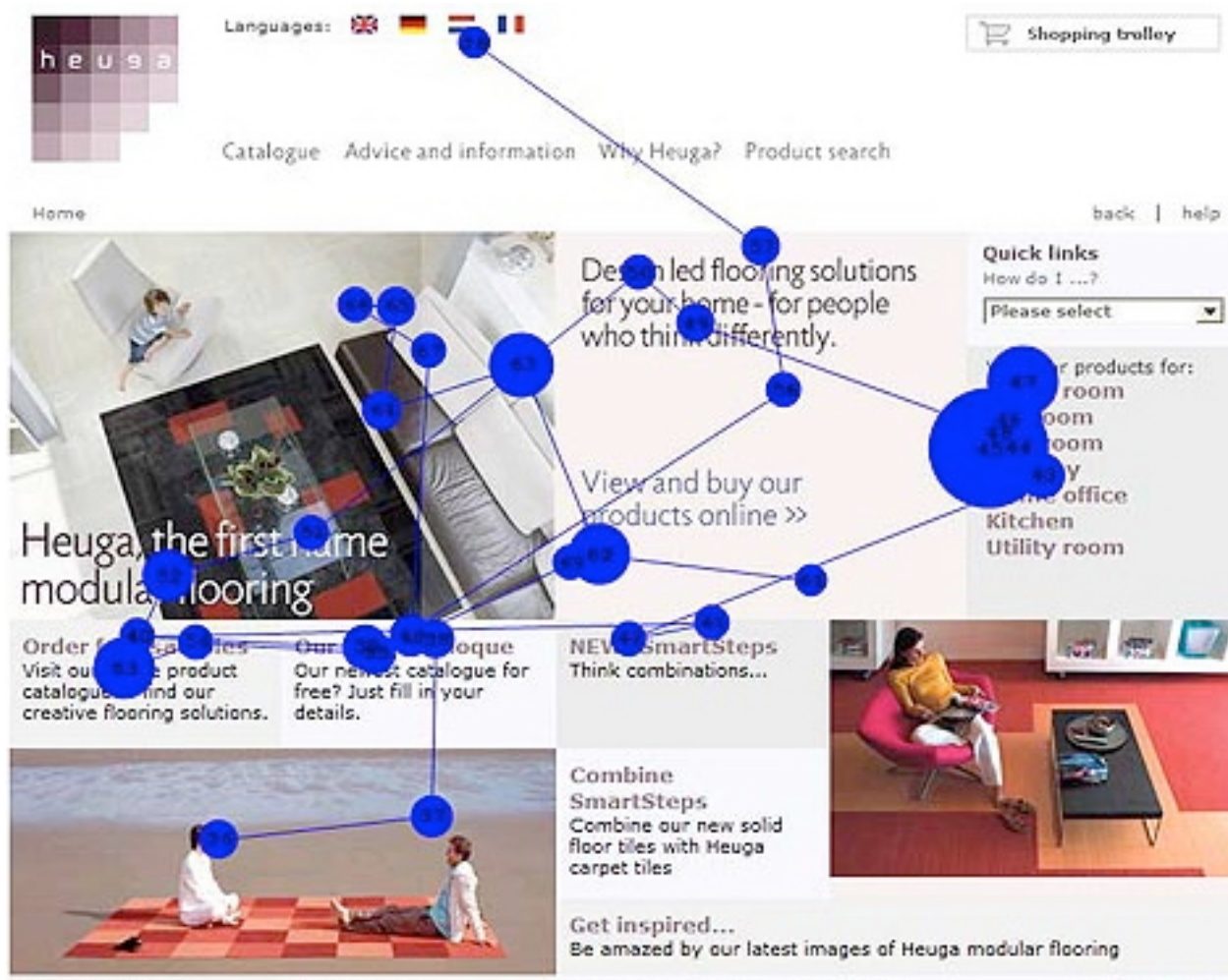
The Self-Reference Effect

The self-reference effect is particularly important for web writing and can dramatically improve the communication between authors and readers. Things that are connected to our personal concept are remembered better than those which aren't directly connected to us. For instance, after reading an article, users better remember the characters, stories or facts they had personal experience with. In *Usability*, the self-reference effect is usually used in terms of web writing and content presented on a web-site.

Usability Glossary: Terms and Concepts

Eye-Tracking

Eye tracking is the process of measuring either the point of gaze ("where we are looking") or the motion of an eye relative to the head. Eye tracking monitor records every eye movement and highlights the most active areas on the site visually. Eye-tracking studies can help to estimate how comfortable web users are with the web-site they're browsing through and how quickly they can understand the structure and system behind it. You can find some interesting usability findings from the recent eye-tracking study [Eyetrack07](#).



Eye-Tracking

Fold

The fold is defined as the lowest point where a web-site is no longer visible on the screen. The position of the fold is, of course, defined by the screen resolution of your visitor. The region above the fold (also called screenful) describes the region of a page that is visible without scrolling. Since the fold is seen directly without scrolling, it is often considered as the area which guarantees the highest possible ad click rates and revenues. However, [Fold area isn't that important.](#) [[Usability.gov](#)]

Foveal viewport (Foveal area)

The fovea, a part of human's eye, is responsible for sharp central vision, which is necessary in humans for reading, watching television or movies, driving, and any activity where visual detail is of primary importance. Foveal area is a small wide space area where your eyes are aimed at and it is the only area where you can perceive the maximum level of detail. Foveal area is a tight area of about two degrees of visual field or two thumbnails held in front of your eyes. This is the place where you'd like to deliver the most important messages to your visitors.

Foveal viewport is important, because outside of this wide screen area, how your visitors see your Web pages change dramatically. Inside this area is the only part of your vision with the maximal resolution – only here no eye scanning is necessary. [\[Source\]](#)

Gloss

Gloss is an automated action that provides hints and summary information on where the link refers to and where it will take the user once it's clicked. Hints can be provided via the link's `title`-attribute. From the usability point of view users want to have the full control over everything that is happening on a web-site; clear and precise explanations of internal and outgoing links, supported by sound anchor text, can improve the usability of a web-site.

Graceful Degradation (Fault-tolerance)

Graceful Degradation is the property of a website to present its content and its basic features even if some of its components (partly or at all) can't be displayed or used. In practice it means that websites display their content in every possible "fault" scenario and can be used in every configuration (browser, plug-ins, connection, OS etc.) the visitor might have. "Power-users" are still offered a full, enhanced version of the page. For instance, it's

typical to offer alternatives for Multimedia-content (for instance image) to ensure that the content can be perceived if images can't be displayed.

[\[Wikipedia\]](#)

Granularity

Granularity is the degree to which a large, usually complex data set or information has been broken down into smaller units.

Hotspot

Hotspots are clickable site areas which change their form or/and outer appearance once they are clicked. This is typical for :focus-effects when a link or any other site element is clicked.

Legibility

Legibility indicates how clear the text is visually.

Minesweeping

Minesweeping stands for user interactions which aim to identify the links on a web-site. In most cases minesweeping is a clear alarm signal for usability problems. Usually minesweeping involves the user rapidly moving the cursor or pointer over a page, watching to see where the cursor or pointer changes to indicate the presence of a link. [\[Usability.gov\]](#)

Mystery-Meat Navigation (MMN)

In Web mystery-meat navigation describes designs in which it is extremely difficult for users to recognize the destinations of navigational hyperlinks — or determine where the hyperlinks are.

Physical consistency

This concept describes the consistent outer appearance of a web-site – e.g. the position of logos, navigation, the use of graphic elements and

typography. Physical consistency is essential for better orientation and effective site navigation.

Progressive Enhancement (PE)

Progressive Enhancement is a design strategy in which sites are created in a layered fashion — from the basic functionality for all browsers to the additional, enhanced features for modern browsers. The main advantage of progressive enhancement lies in its “universal usability” — i.e. the fact that it allows everyone to access the basic content and functionality of a web page, using any browser or Internet connection, while also providing those with better bandwidth or more advanced browser software an enhanced version of the page. [[Wikipedia](#)]

Readability

Readability describes the degree to which the meaning of text is understandable, based on the complexity of sentences and the difficulty of vocabulary. Indexes for readability usually rank usability by the age or grade level required for someone to be able to readily understand a reading passage. Readability is not legibility.

User-centered design (UCD)

User-centered design is a design philosophy in which users, their needs, interests and behavior define the foundation of web-site in terms of site structure, navigation and obtaining the information. UCD is considered as a standard approach for modern web-applications, particularly due to the rise of user generated content. In Web 2.0 visitors have to be motivated to participate and therefore need conditions optimized for their needs.

Vigilance (sustained attention)

Vigilance is the ability to sustain attention during prolonged, monotonous tasks such as proofreading a text looking for spelling errors, reminding of

appointments, auto-saving word processor documents etc. In modern web-applications vigilance tasks are performed in background, automatically and thus improve the usability of the service. [\[I-D\]](#)

Walk-Up-And-Use Design

A Walk-up-and-use design is self-explanatory and intuitive, so that first-time or one-time users can use it effectively without any prior introduction or training. [\[I-D\]](#)

Wireframe

A wireframe is a basic structure — skeleton — of a site that describes the ideas, concepts and site structure of a web-site. Wireframes can be designed as presentations which explain to the stake holders how the site is designed, what functionality it offers and how users can accomplish their tasks. Wireframes usually don't have any visual elements or a complete page layouts; they are often first drafts and sketches designers create on paper.

10 Principles of Effective Web Design

By Vitaly Friedman, January 31st, 2008

Usability and the utility, not the visual design, determine the success or failure of a web-site. Since the visitor of the page is the only person who clicks the mouse and therefore decides everything, user-centric design has become a standard approach for successful and profit-oriented web design. After all, if users can't use a feature, it might as well not exist.

We aren't going to discuss the implementation details (e.g. where the search box should be placed) as it has already been done in a number of articles; instead we focus on the main principles, heuristics and approaches for effective web design — approaches which, used properly, can lead to more sophisticated design decisions and simplify the process of perceiving presented information.

Principles Of Effective Web Design

In order to use the principles properly we first need to understand how users interact with web-sites, how they think and what are the basic patterns of users' behavior.

How do users think?

Basically, users' habits on the Web aren't that different from customers' habits in a store. Visitors glance at each new page, scan some of the text, and click on the first link that catches their interest or vaguely resembles

the thing they're looking for. In fact, there are large parts of the page they don't even look at.

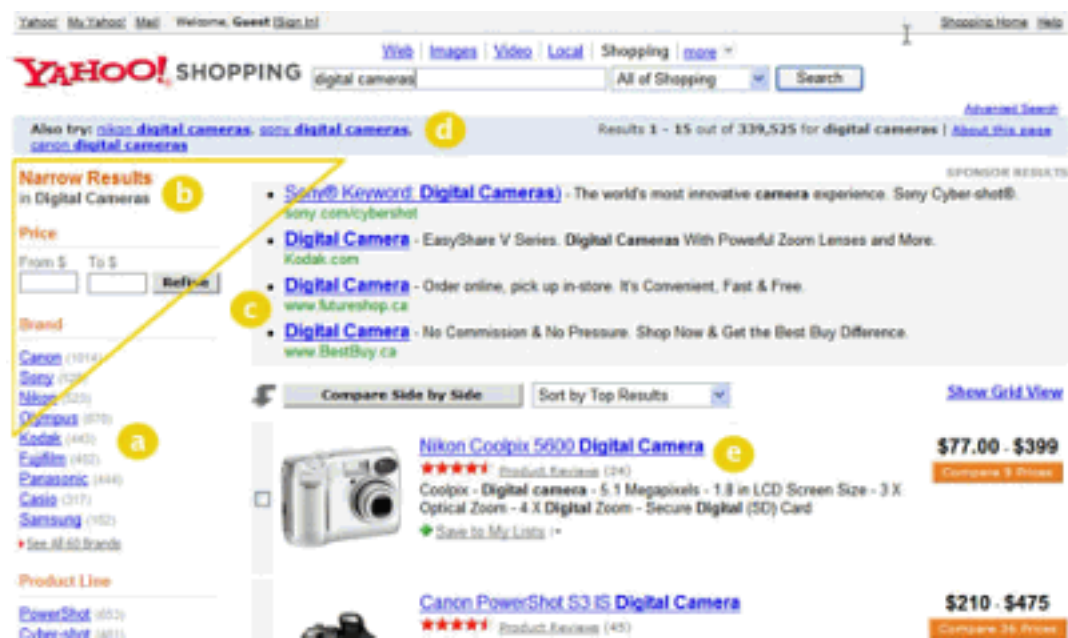
Most users search for something interesting (or useful) and clickable; as soon as some promising candidates are found, users click. If the new page doesn't meet users' expectations, the Back button is clicked and the search process is continued.

- **Users appreciate quality and credibility.** If a page provides users with high-quality content, they are willing to compromise the content with advertisements and the design of the site. This is the reason why not-that-well-designed web-sites with high-quality content gain a lot of traffic over years. Content is more important than the design which supports it.
- **Users don't read, they scan.** Analyzing a web-page, users search for some fixed points or anchors which would guide them through the content of the page.



Users don't read, they scan. Notice how "hot" areas abrupt in the middle of sentences. This is typical for the scanning process.

- **Web users are impatient and insist on instant gratification.** Very simple principle: If a web-site isn't able to meet users' expectations, then designer failed to get his job done properly and the company loses money. The higher is the cognitive load and the less intuitive is the navigation, the more willing are users to leave the web-site and search for alternatives.
- **Users don't make optimal choices.** Users don't search for the quickest way to find the information they're looking for. Neither do they scan web-page in a linear fashion, going sequentially from one site section to another one. Instead users satisfice; they choose the first reasonable option. As soon as they find a link that seems like it might lead to the goal, there is a very good chance that it will be immediately clicked. Optimizing is hard, and it takes a long time. Satisficing is more efficient. [video]





Both pictures show: sequential reading flow doesn't work in the Web. Right screenshot on the image at the bottom describes the scan path of a given page.

- **Users follow their intuition.** In most cases users muddle through instead of reading the information a designer has provided. According to Steve Krug, the basic reason for that is that users don't care. "If we find something that works, we stick to it. It doesn't matter to us if we understand how things work, as long as we can use them. If your audience is going to act like you're designing billboard, then design great billboards."

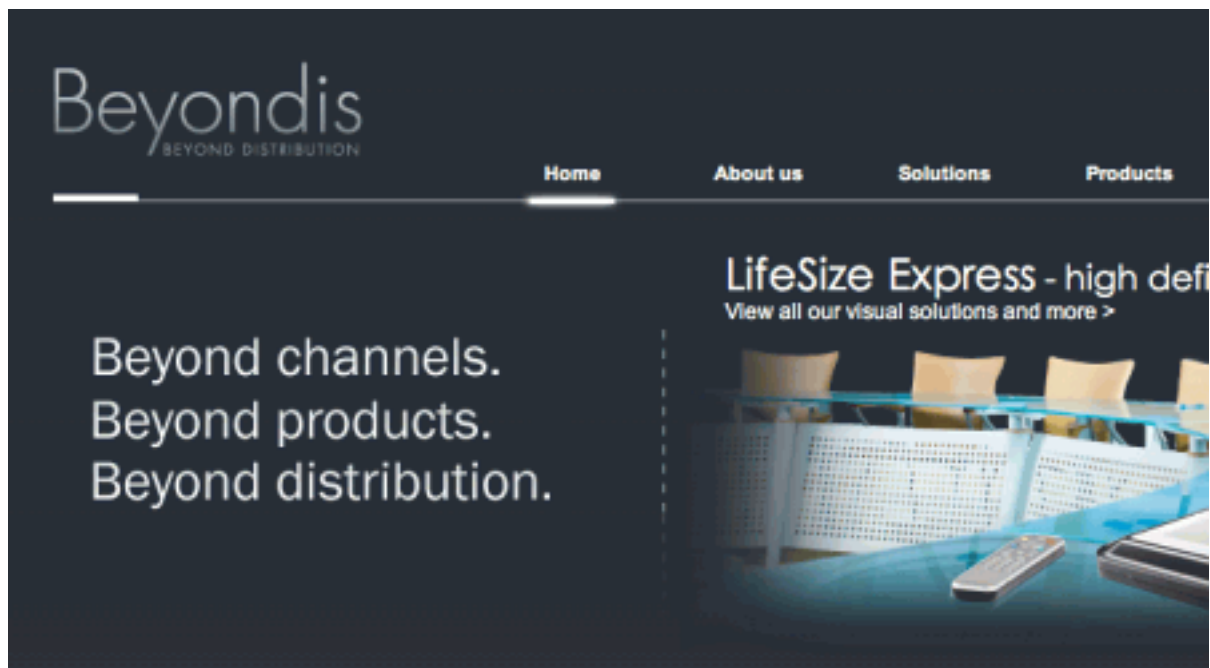
-
- **Users want to have control.** Users want to be able to control their browser and rely on the consistent data presentation throughout the site. E.g. they don't want new windows popping up unexpectedly and they want to be able to get back with a "Back"-button to the site they've been before: therefore it's a good practice to *never open links in new browser windows*.

1. Don't make users think

According to Krug's first law of usability, the web-page should be obvious and self-explanatory. When you're creating a site, your job is to get rid of the *question marks* — the decisions users need to make consciously, considering pros, cons and alternatives.

If the navigation and site architecture aren't intuitive, the number of question marks grows and makes it harder for users to comprehend how the system works and how to get from point A to point B. A clear structure, moderate visual clues and easily recognizable links can help users to find their path to their aim.

Let's take a look at an example. Beyondis.co.uk claims to be "beyond channels, beyond products, beyond distribution". What does it *mean*? Since users tend to explore web-sites according to the "[F"-pattern](#), these three statements would be the first elements users will see on the page once it is loaded.



Although the design itself is simple and intuitive, to understand what the page is about the user needs to search for the answer. This is what an *unnecessary question mark* is. It's designer's task to make sure that the number of question marks is close to 0. The visual explanation is placed on the right hand side. Just exchanging both blocks would increase usability.

[ExpressionEngine](#) uses the very same structure like Beyondis, but avoids unnecessary question marks. Furthermore, the slogan becomes functional as users are provided with options to try the service and download the free version.

By reducing cognitive load you make it easier for visitors to grasp the idea behind the system. Once you've achieved this, you can communicate why the system is useful and how users can benefit from it. People won't use your website if they can't find their way around it.

2. Don't squander users' patience

In every project when you are going to offer your visitors some service or tool, try to keep your user requirements minimal. The less action is required from users to test a service, the more likely a random visitor is to actually try it out. First-time visitors are willing to play with the service, not filling long web forms for an account they might never use in the future. Let users explore the site and discover your services without forcing them into sharing private data. It's not reasonable to force users to enter an email address to test the feature.

As Ryan Singer — the developer of the 37Signals team — [states](#), users would probably be eager to provide an email address if they were asked for it after they'd seen the feature work, so they had some idea of what they were going to get in return.

The image shows a web browser window displaying the Stikkit sign-up page. The header is a dark blue bar with the 'stikkit' logo on the left and navigation links 'contact', 'forums', 'api', and 'sign in' on the right. The main content area has a yellow background. It features a 'sign up for stikkit' heading followed by four input fields: 'email address' (containing 'editor@smashingmagazine.com'), 'nickname' (containing 'smashing'), 'password' (masked with dots), and 'password again' (also masked with dots). Below these fields is a checkbox that is checked, with the text 'I agree to the Stikkit Terms of Use and Privacy Policy. (We also provide a summary of your rights and obligations.)'. The links 'Terms of Use' and 'summary of your rights and obligations' are underlined. At the bottom right of the form is a 'sign up' button with a mouse cursor hovering over it.

stikkit

contact forums api sign in

sign up for stikkit

email address

editor@smashingmagazine.com

nickname

smashing

password

.....

password again

.....

☒ I agree to the Stikkit [Terms of Use](#) and [Privacy Policy](#). (We also provide a [summary of your rights and obligations](#).)

sign up

[Stikkit](#) is a perfect example for a user-friendly service which requires almost nothing from the visitor which is unobtrusive and comforting. And that's what you want your users to feel on your website.

Einen neuen Account erstellen.

1.

Firmenname & Login-Kürzel.

Das Login-Kürzel darf nur Buchstaben und Ziffern enthalten.

Firmenname

Login-Kürzel

appmite.de/login/smashing_mag

- ☒ Ich bin mit den [AGB](#) einverstanden.
- ☒ Passwort in der Aktivierungs-Mail mitsenden.

2.

Dein erster Benutzer.

Die E-Mail-Adresse dient als Benutzername.

E-Mail

Vollständiger Name

3.

Wähle ein Passwort für den ersten Benutzer.

Das Passwort muss zwischen 6 und 30 Zeichen haben.

Passwort

Passwort wiederholen

Account erstellen »

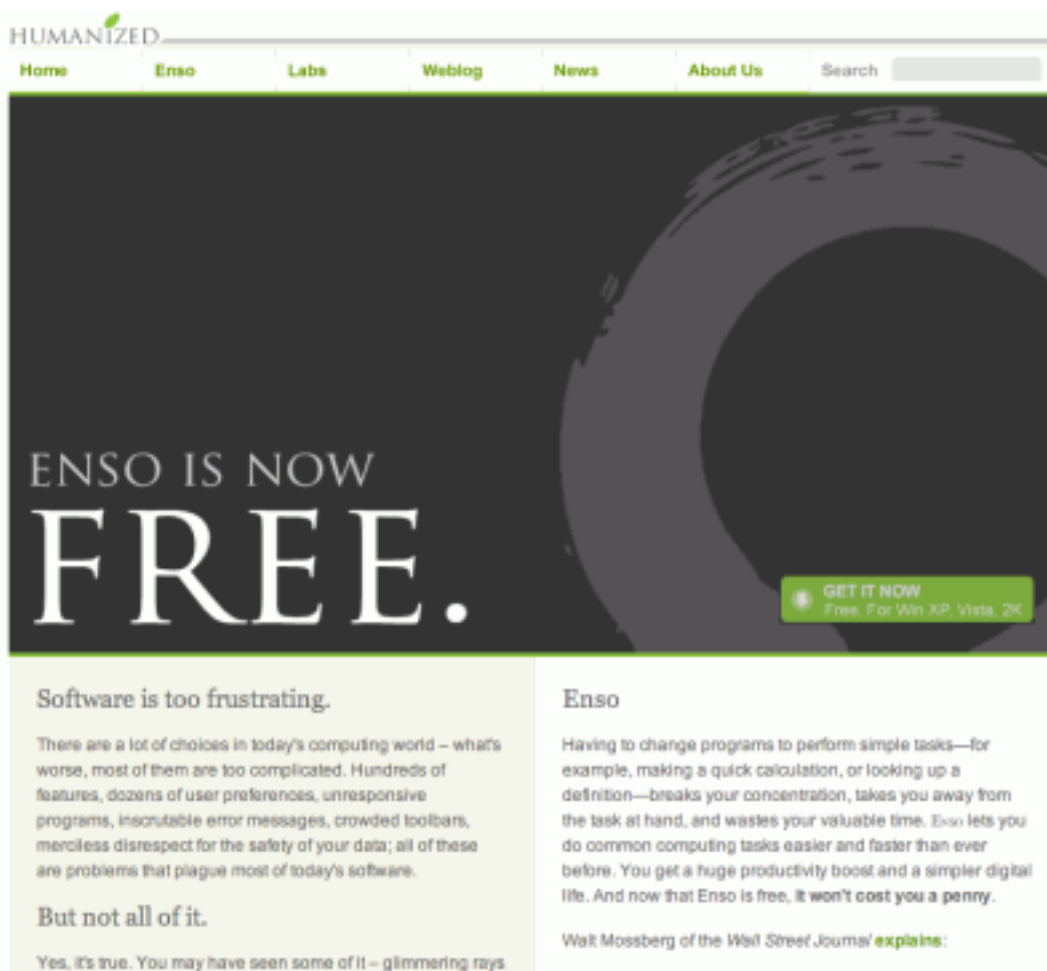
Apparently, Mite requires more. However the registration can be done in less than 30 seconds — as the form has horizontal orientation, the user doesn't even need to scroll the page.

Ideally remove all barriers, don't require subscriptions or registrations first. A user registration alone is enough of an impediment to user navigation to cut down on incoming traffic.

3. Manage to focus users' attention

As web-sites provide both static and dynamic content, some aspects of the user interface attract attention more than others do. Obviously, images are more eye-catching than the text — just as the sentences marked as bold are more attractive than plain text.

The human eye is a highly non-linear device, and web-users can instantly recognize edges, patterns and motions. This is why video-based advertisements are extremely annoying and distracting, but from the marketing perspective they perfectly do the job of capturing users' attention.



Humanized.com perfectly uses the principle of focus. The only element which is directly visible to the users is the word “free” which works attractive and appealing, but still calm and purely informative. Subtle hints provide users with enough information of how to find more about the “free” product.

Focusing users’ attention to specific areas of the site with a moderate use of visual elements can help your visitors to get from point A to point B without thinking of how it actually is supposed to be done. The less question marks visitors have, the better sense of orientation they have and the more trust they can develop towards the company the site represents. In other words: the less thinking needs to happen behind the scenes, the better is the user experience which is the aim of usability in the first place.

4. Strive for feature exposure

Modern web designs are usually criticized due to their approach of guiding users with visually appealing 1-2-3-done-steps, large buttons with visual effects etc. But from the design perspective these elements actually aren’t a bad thing. On the contrary, such guidelines are extremely effective as they lead the visitors through the site content in a very simple and user-friendly way.



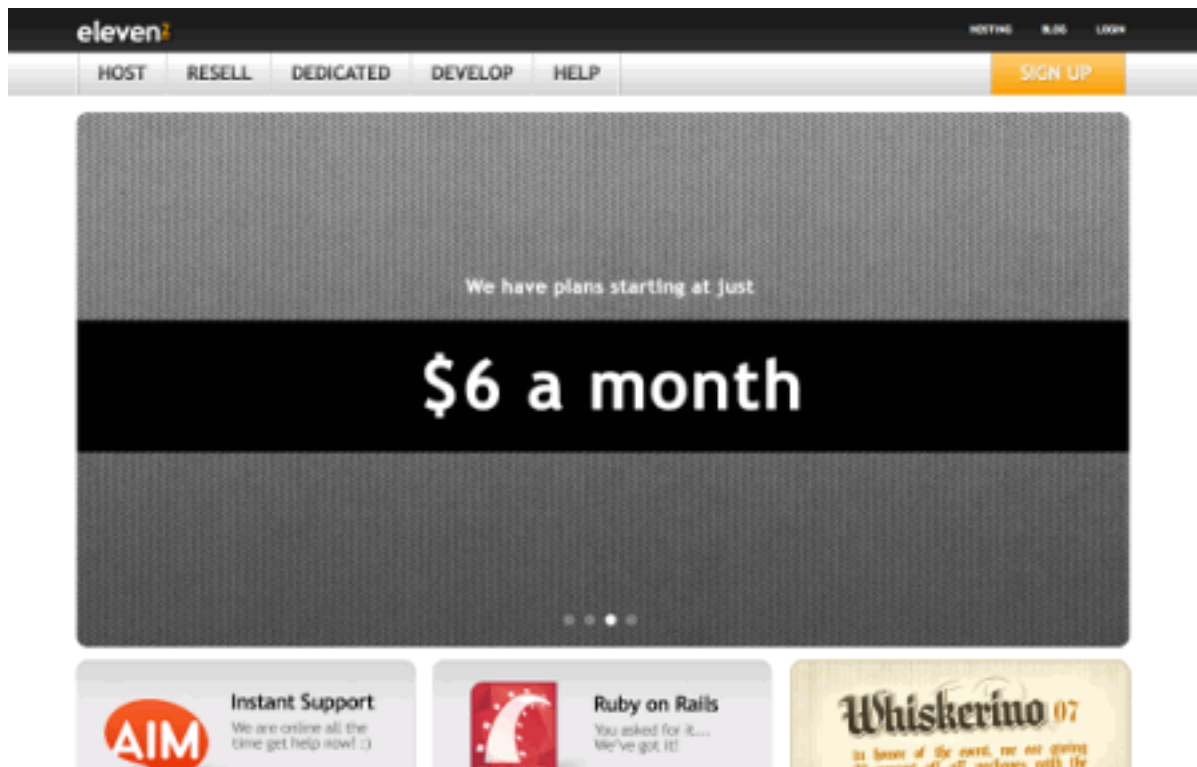
Dibusoft.com combines visual appeal with clear site structure. The site has 9 main navigation options which are visible at the first glance. The choice of colors might be too light, though.

Letting the user see clearly what functions are available is a fundamental principle of successful user interface design. It doesn't really matter how this is achieved. What matters is that the content is well-understood and visitors feel comfortable with the way they interact with the system.

5. Make use of effective writing

As the Web is different from print, it's necessary to adjust the writing style to users' preferences and browsing habits. Promotional writing won't be read. Long text blocks without images and keywords marked in bold or *italics* will be skipped. Exaggerated language will be ignored.

Talk business. Avoid cute or clever names, marketing-induced names, company-specific names, and unfamiliar technical names. For instance, if you describe a service and want users to create an account, “sign up” is better than “start now!” which is again better than “explore our services”.



Eleven2.com gets directly to the point. No cute words, no exaggerated statements. Instead a price: just what visitors are looking for.

An optimal solution for effective writing is to

- use short and concise phrases (come to the point as quickly as possible),
- use scannable layout (categorize the content, use multiple heading levels, use visual elements and bulleted lists which break the flow of uniform text blocks),

- use plain and objective language (a promotion doesn't need to sound like advertisement; give your users some reasonable and objective reason why they should use your service or stay on your web-site)

6. Strive for simplicity

The “keep it simple”-principle (KIS) should be the primary goal of site design. Users are rarely on a site to enjoy the design; furthermore, in most cases they are looking for the information *despite* the design. Strive for simplicity instead of complexity.



Crcbus provides visitors with a clean and simple design. You may have no idea what the site is about as it is in Italian, however you can directly

recognize the navigation, header, content area and the footer. Notice how even icons manage to communicate the information clearly. Once the icons are hovered, additional information is provided.

From the visitors' point of view, the best site design is a pure text, without any advertisements or further content blocks matching exactly the query visitors used or the content they've been looking for. This is one of the reasons why a user-friendly print-version of web pages is essential for good user experience.



[Finch](#) clearly presents the information about the site and gives visitors a choice of options without overcrowding them with unnecessary content.

7. Don't be afraid of the white space

Actually it's really hard to overestimate the importance of white space. Not only does it help to reduce the cognitive load for the visitors, but it makes it possible to perceive the information presented on the screen. When a new

visitor approaches a design layout, the first thing he/she tries to do is to scan the page and divide the content area into digestible pieces of information.

Complex structures are harder to read, scan, analyze and work with. If you have the choice between separating two design segments by a visible line or by some whitespace, it's usually better to use the whitespace solution. Hierarchical structures reduce complexity (Simon's Law): the better you manage to provide users with a sense of visual hierarchy, the easier your content will be to perceive.



White space is good. Cameron.io uses white space as a primary design element. The result is a well-scannable layout which gives the content a dominating position it deserves.

8. Communicate effectively with a “visible language”

In his papers on effective visual communication, Aaron Marcus states [three fundamental principles](#) involved in the use of the so-called “*visible language*” — the content users see on a screen.

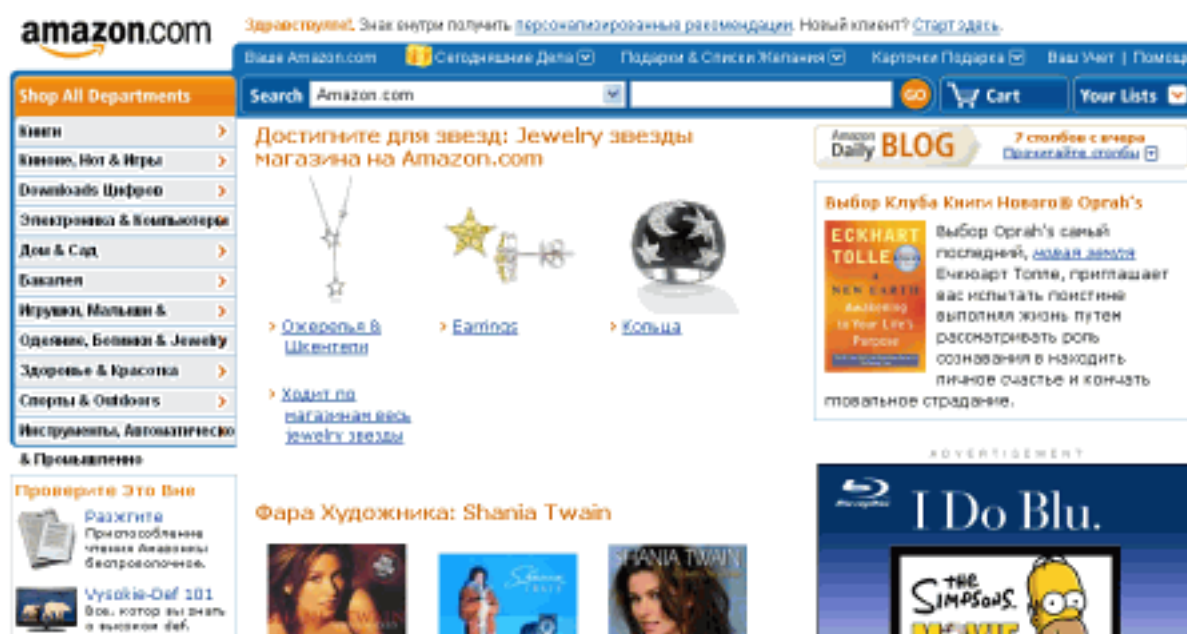
- **Organize:** provide the user with a clear and consistent conceptual structure. Consistency, screen layout, relationships and navigability are important concepts of organization. The same conventions and rules should be applied to all elements.
- **Economize:** do the most with the least amount of cues and visual elements. Four major points to be considered: simplicity, clarity, distinctiveness, and emphasis. *Simplicity* includes only the elements that are most important for communication. *Clarity*: all components should be designed so their meaning is not ambiguous. *Distinctiveness*: the important properties of the necessary elements should be distinguishable. *Emphasis*: the most important elements should be easily perceived.
- **Communicate:** match the presentation to the capabilities of the user. The user interface must keep in balance legibility, readability, typography, symbolism, multiple views, and color or texture in order to communicate successfully. Use max. 3 typefaces in a maximum of 3 point sizes — a maximum of 18 words or 50-80 characters per line of text.

9. Conventions are our friends

Conventional design of site elements doesn't result in a boring website. In fact, conventions are very useful as they reduce the learning curve, the

need to figure out how things work. For instance, it would be a usability nightmare if all web-sites had different visual presentation of RSS-feeds. That's not that different from our regular life where we tend to get used to basic principles of how we organize data (folders) or do shopping (placement of products).

With conventions you can gain users' confidence, trust, reliability and prove your credibility. Follow users' expectations — understand what they're expecting from a site navigation, text structure, search placement etc. (see Nielsen's [Usability Alertbox](#) for more information)



BabelFish in use: Amazon.com in Russian.

A typical example from usability sessions is to translate the page in Japanese (assuming your web users don't know Japanese, e.g. with [Babelfish](#)) and provide your usability testers with a task to find something in the page of different language. If conventions are well-applied, users will be able to achieve a not-too-specific objective, even if they can't understand a word of it.

Steve Krug suggests that it's better to innovate only when you know you really have a better idea, but take advantages of conventions when you don't.

10. Test early, test often

This so-called TETO-principle should be applied to every web design project as usability tests often provide crucial insights into significant problems and issues related to a given layout.

Test not too late, not too little and not for the wrong reasons. In the latter case it's necessary to understand that most design decisions are local; that means that you can't universally answer whether some layout is better than the other one as you need to analyze it from a very specific point of view (considering requirements, stakeholders, budget etc.).

Some important points to keep in mind:

- According to Steve Krug, **testing one user is 100% better than testing none** and testing one user early in the project is better than testing 50 near the end. According to Boehm's first law, errors are most frequent during requirements and design activities and are the more expensive the later they are removed.
- Testing is an **iterative process**. That means that you design something, test it, fix it and then test it again. There might be problems which haven't been found during the first round as users were practically blocked by other problems.
- Usability tests **always produce useful results**. Either you'll be pointed to the problems you have or you'll be pointed to the absence of major design flaws which is in both cases a useful insight for your project.

-
- According to Weinberg's law, **a developer is unsuited to test his or her code**. This holds for designers as well. After you've worked on a site for few weeks, you can't observe it from a fresh perspective anymore. You know how it is built and therefore you know exactly how it works — you have the wisdom independent testers and visitors of your site wouldn't have.

Bottom line: if you want a great site, you've got to test.



Interested in Web Design? Check out the Smashing eBook #7: "**Professional Web Design, Volume 2**"

You can buy this eBook now from

[Apple iTunes Store](#) | [Amazon](#) | [Smashing Shop](#)

Clever JPEG Optimization Techniques

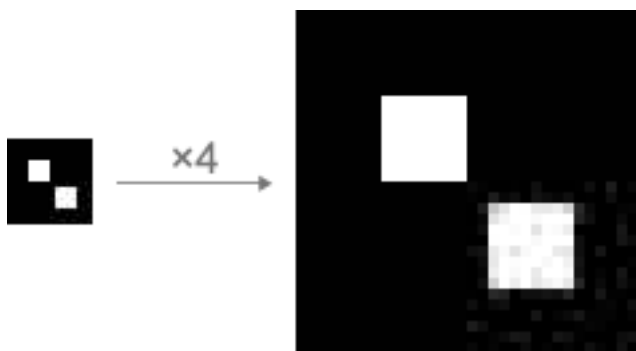
By Sergey Chikuyonok, July 1st, 2009

When people talk about image optimization, they consider only the limited parameters offered by popular image editors, like the “Quality” slider, the number of colors in the palette, dithering and so on. Also, a few utilities, such as [OptiPNG](#) and [jpegtran](#), manage to squeeze extra bytes out of image files. All of these are pretty well-known tools that provide Web developers and designers with straightforward techniques of image optimization.

In this article, we’ll show you a different approach to image optimization, based on how image data is stored in different formats. Let’s start with the JPEG format and a simple technique called the eight-pixel grid.

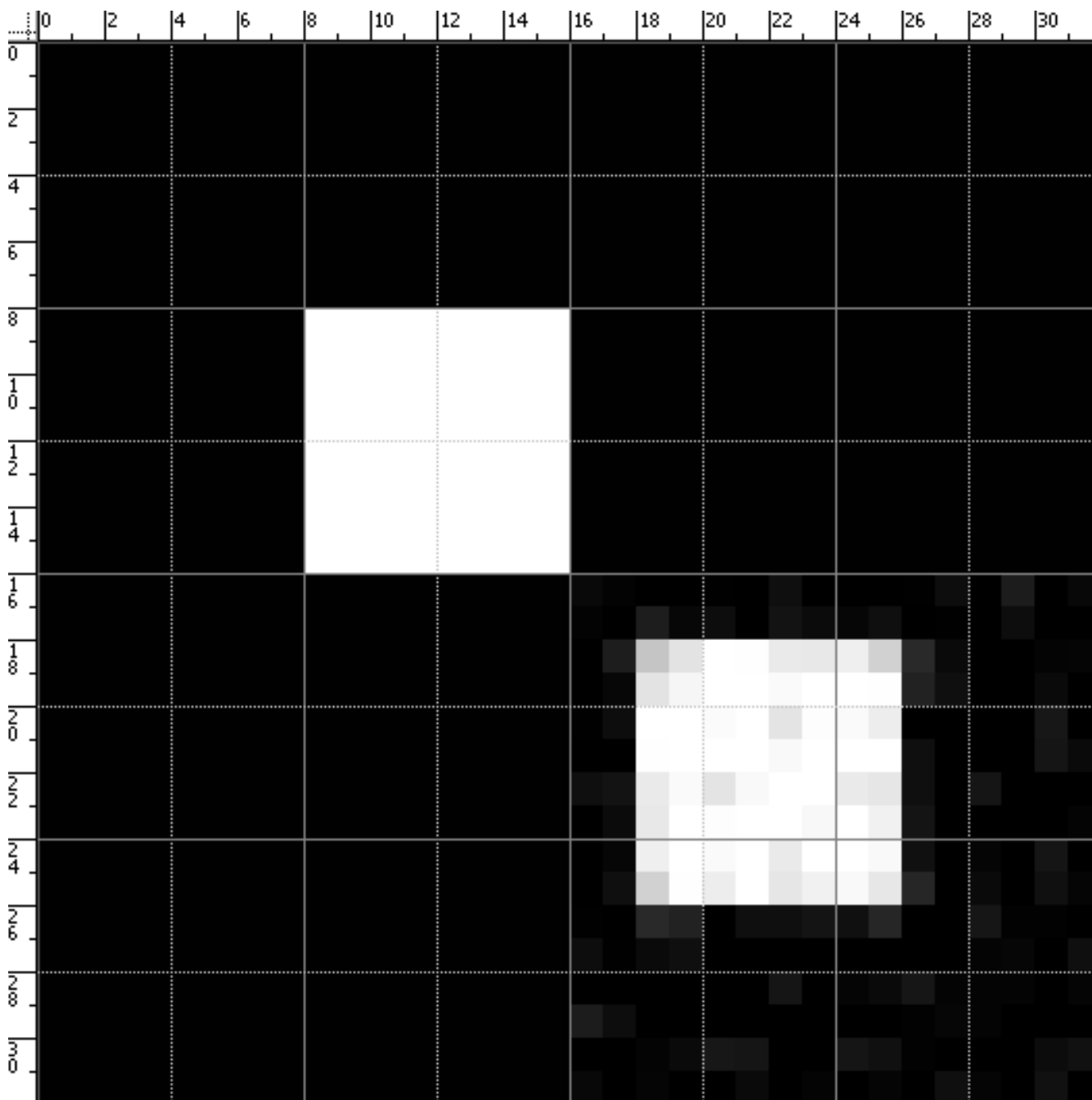
Eight-Pixel Grid

As you already know, a JPEG image consists of a series of 8×8 pixel blocks, which can be especially visible if you set the JPEG “Quality” parameter too low. How does this help us with image optimization? Consider the following example:



32×32 pixels, Quality: 10 (in Photoshop), 396 bytes.

Both white squares are the same size: 8×8 pixels. Although the Quality is set low, the lower-right corner looks fuzzy (as you might expect) and the upper-left corner looks nice and clean. How did that happen? To answer this, we need to look at this image under a grid:



As you can see, the upper-left square is aligned into an eight-pixel grid, which ensures that the square looks sharp.

When saved, the image is divided into blocks of 8×8 pixels, and each block is optimized independently. Because the lower-right square does not match the grid cell, the optimizer looks for color indexes averaged between black and white (in JPEG, each 8×8 block is encoded as a sine wave). This explains the fuzz. Many advanced utilities for JPEG optimization have this feature, which is called selective optimization and results in co-efficients of different quality in different image regions and more saved bytes.

This technique is especially useful for saving rectangular objects. Let's see how it works with a more practical image:

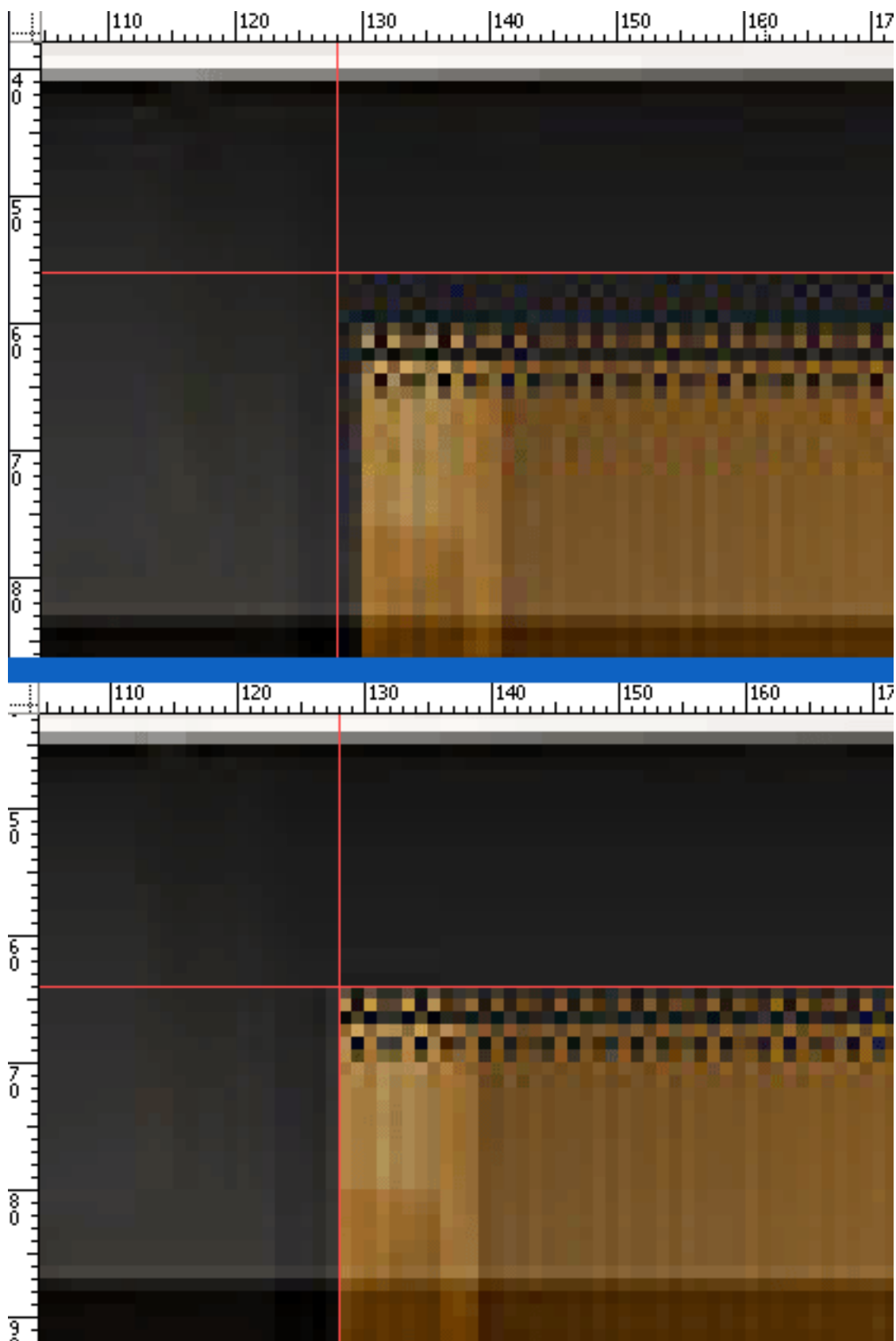


13.51 KB.



12.65 KB.

In the first example, the microwave oven is randomly positioned. Before saving the second file, we align the image with the eight-pixel grid. Quality settings are the same for both: 55. Let's take a closer look (the red lines mark the grid):



As you can see, we've saved 1 KB of image data simply by positioning the image correctly. Also, we made the image a little "cleaner," too.

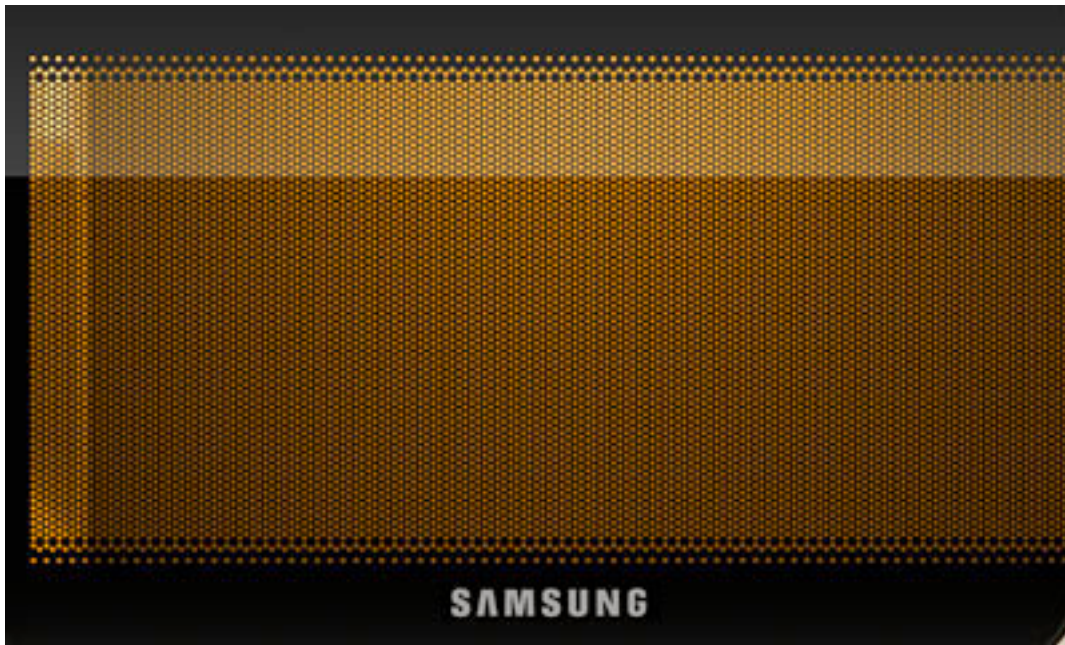
Color Optimization

This technique is rather complicated and works only for certain kinds of images. But we'll go over it anyway, if only to learn the theory.

First, we need to know which color model is being used for the JPEG format. Most image formats are in the RGB color model, but JPEG can also be in YCbCr, which is widely used for television.

YCbCr is similar to the HSV model in the sense that YCbCr and HSV both separate lightness for which human visual system is very sensitive from chroma (HSV should be familiar to most designers). It has three components: hue, saturation and value. The most important one for our purposes here is value, also known as lightness (optimizers tend to compress color channels but keep the value as high as possible because the human eye is most sensitive to it). Photoshop has a Lab color mode, which helps us better prepare the image for compression using the JPEG optimizer.

Let's stick with the microwave oven as our example. There is a fine net over the door, which is a perfect sample for our color optimization. After a simple compression, at a Quality of 55, the file weighs 64.39 KB.

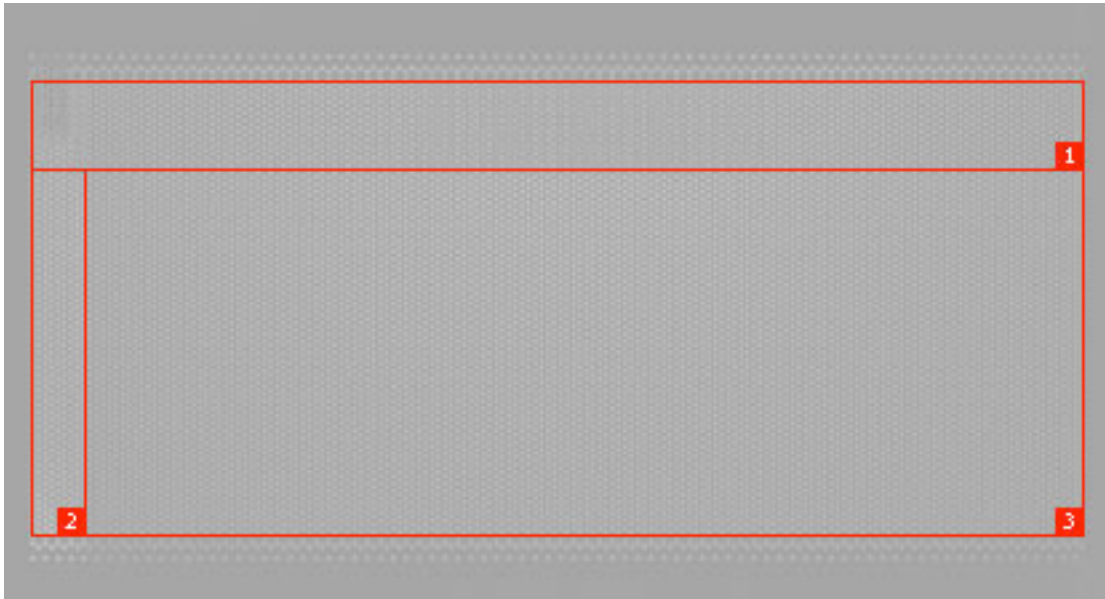


990×405 pixels, Quality: 55 (in Photoshop), 64.39 KB.

Open the larger version of the image in Photoshop, and turn on Lab Color mode: Image >> Mode >> Lab Color.

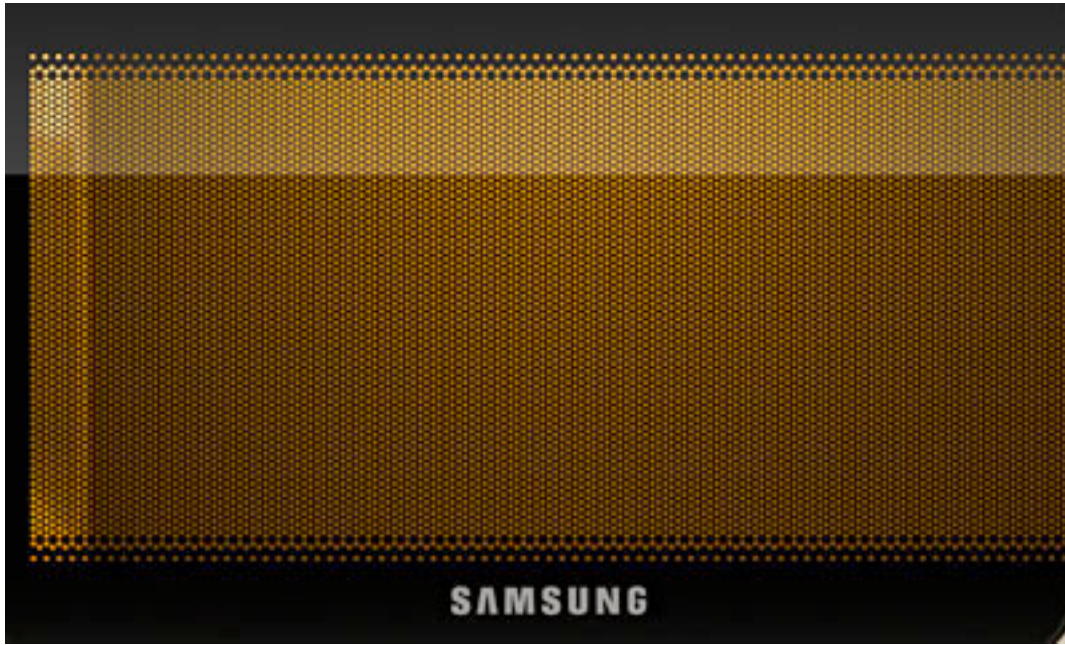
Lab mode is almost, but not quite, the same as HSV and YCbCr. The lightness channel contains information about the image's lightness. The *A* channel shows how much red or green there is. And the *B* channel handles blue and yellow. Despite these differences, this mode allows us to get rid of redundant color information.

Switch to the Channels palette and look at the *A* and *B* channels. We can clearly see the texture of the net, and there seems to be three blocks of differing intensities of lightness.

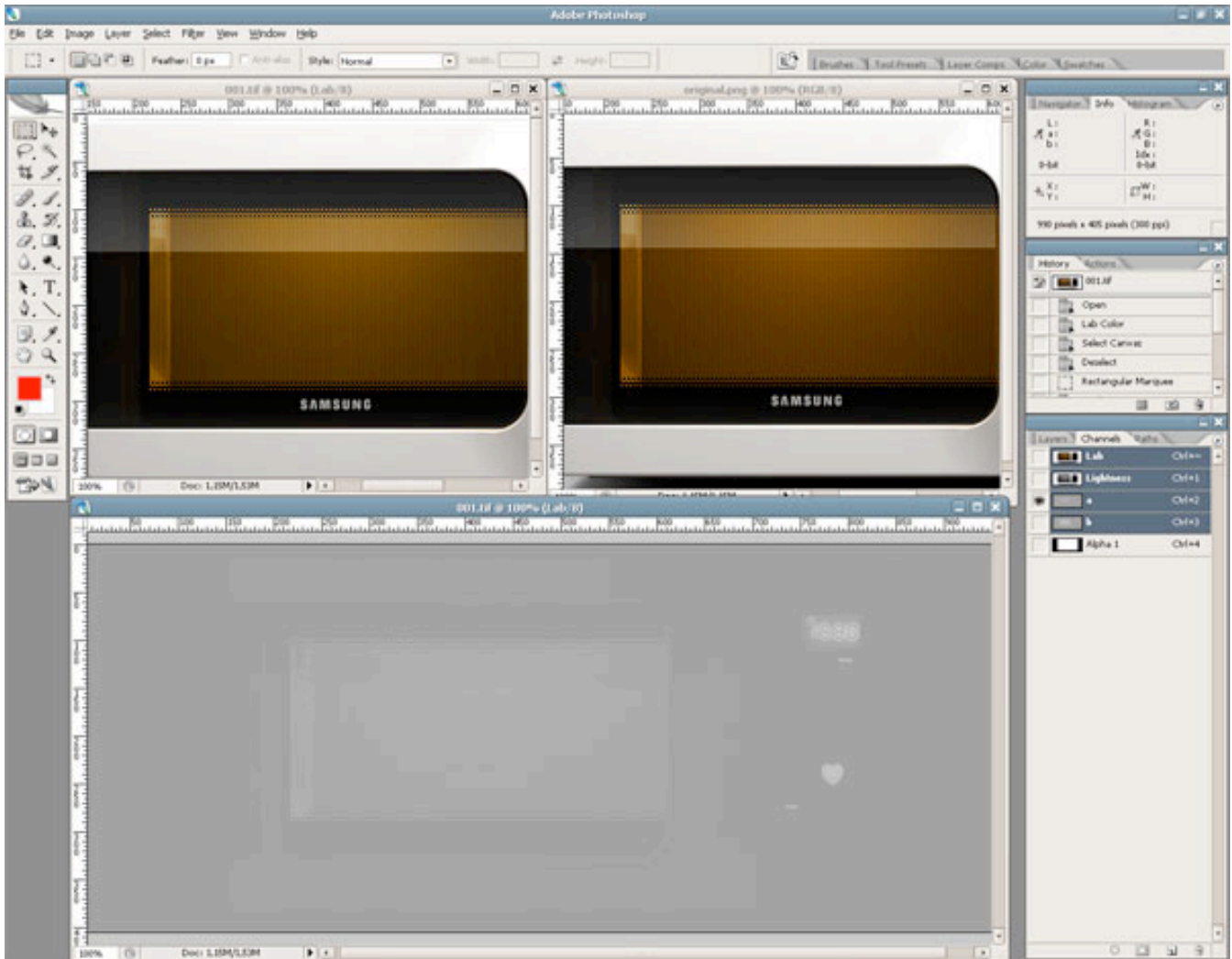


We are going to be making some color changes, so keeping an original copy open in a separate window will probably help. Our goal is to smooth the grainy texture in these sections in both color channels. This will give the optimizer much simpler data to work with. You may be wondering why we are optimizing this particular area of the image (the oven door window). Simple: this area is made up of alternating black and orange pixels. Black is zero lightness, and this information is stored in the lightness channel. So, if we make this area completely orange in the color channels, we won't lose anything because the lightness channel will determine which pixels should be dark, and the difference between fully black and dark orange will not be noticeable on such a texture.

Switch to the A channel, select each block separately and apply a Median filter (Filter >> Noise >> Median). The radius should be as small as possible (i.e. until the texture disappears) so as not to distort the glare too much. Aim for 4 in the first block, 2 in the second and 4 in the third. At this point, the door will look like this:

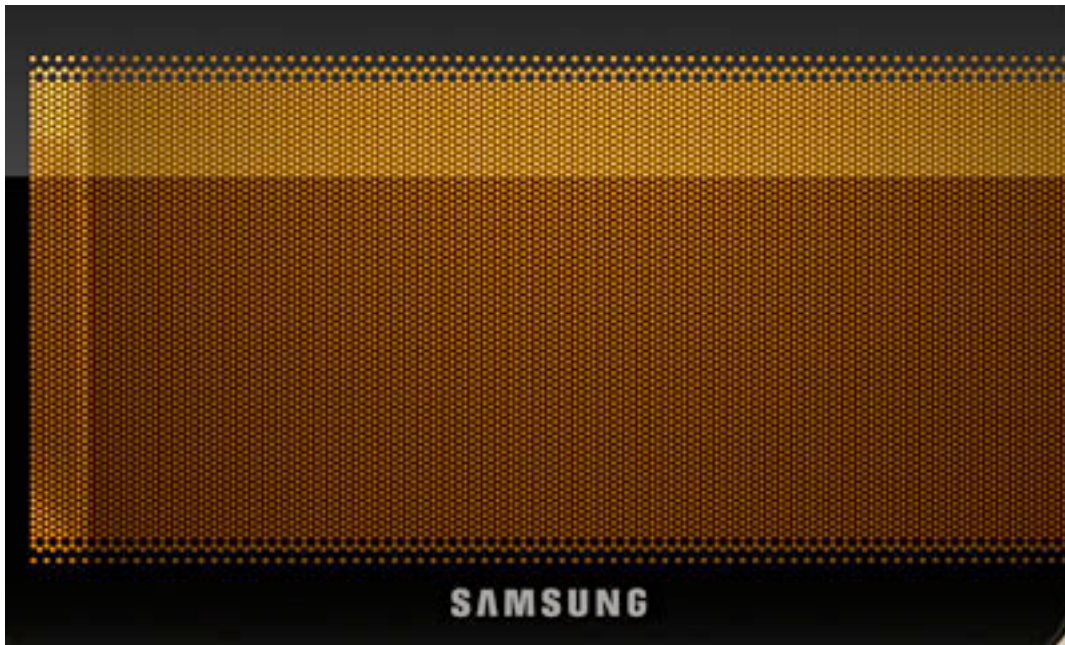


The saturation is low, so we'll need to fix this. To see all color changes instantly, duplicate the currently active window: Window >> Arrange >> New Window. In the new window, click on the Lab channel to see the image. As a result, your working space should look like this:



The original is on the right, the duplicate on the left and the workplace at the bottom.

Select all three blocks in the *A* channel in the workplace, and call up the Levels window (Ctrl+L or Image >> Adjustments >> Levels). Move the middle slider to the left so that the color of the oven's inside in the duplicate copy matches that of the original (I got a value of 1.08 for the middle slider). Do the same with the *B* channel and see how it looks:



990×405 pixels, Quality: 55 (in Photoshop), 59.29 KB

As you can see, we removed 5 KB from the image (it was 64.39 KB). Although the description of this technique looks big and scary, it only takes about a minute to perform: switch to the Lab color model, select different regions of color channels and use the Median filter on them, then do some saturation correction. As mentioned, this technique is more useful for the theory behind it, but I use it to fine-tune large advertising images that have to look clean and sharp.

Common JPEG Optimization Tips

We'll finish here by offering some useful optimization tips.

Every time you select the image compression quality, be deliberate in your choice of the program you use for optimization. JPEG standards are strict: they only determine *how* an image is transformed when reducing file size. But the developer decides what exactly the optimizer does.

For example, some marketers promote their software as offering the best optimization, allowing you to save files at a small size with high Quality settings, while portraying Photoshop as making files twice as heavy. Do not get taken in. Each program has its own Quality scale, and various values determine additional optimization algorithms.

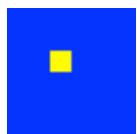
The only criterion by which to compare optimization performance is the quality to size ratio. If you save an image with a 55 to 60 Quality in Photoshop, it will look like and have the same size as files made with other software at, say, 80 Quality.

Never save images at 100 quality. This is not the highest possible quality, but rather only a mathematical optimization limit. You will end up with an unreasonably heavy file. Saving an image with a Quality of 95 is more than enough to prevent loss.

Keep in mind that when you set the Quality to under 50 in Photoshop, it runs an additional optimization algorithm called *color down-sampling*, which averages out the color in the neighboring eight-pixel blocks:



48×48 pixels, Quality: 50 (in Photoshop), 530 bytes.



48×48 pixels, Quality: 51 (in Photoshop), 484 bytes.

So, if the image has small, high-contrast details in the image, setting the Quality to at least 51 in Photoshop is better.

Typographic Design Patterns and Best Practices

By Michael Martin, August 20th, 2009

Even with a relatively limited set of options in CSS, typography can vary tremendously using pure CSS syntax. Serif or sans-serif? Large or small font? Line height, spacing, font size and padding... The list goes on and on.

To find typographic design patterns that are common in modern Web design and to resolve some common typographic issues, we conducted extensive research on 50 popular websites on which typography matters more than usual (or at least should matter more than usual). We've chosen popular newspapers, magazines and blogs as well as various typography-related websites.

We've carefully analyzed their typography and style sheets and searched for similarities and differences. We have also put together a [spreadsheet of the study](#) that displays the websites' various values (for example, the ratio between the line height and line length).

Ultimately, we identified 13 general typographic problems and issues related to typographic design and tried to find answers to them through our research:

1. How popular are serif and sans-serif typefaces in body copy and headlines?
2. Which fonts are used most frequently?
3. What is the average font size?

-
4. What is the average ratio between the font size of headlines and body copy?
 5. What is the average line height of body copy?
 6. What is the average ratio between line height and font size in body copy?
 7. What is the average ratio between line height and line length in body copy?
 8. What is the average amount of spacing between paragraphs?
 9. What is the average ratio of paragraph spacing to line height in body copy?
 10. How are links styled?
 11. How many characters per line are common in body copy?
 12. How often are links underlined?
 13. How often is font replacement (sIFR, etc.) used?

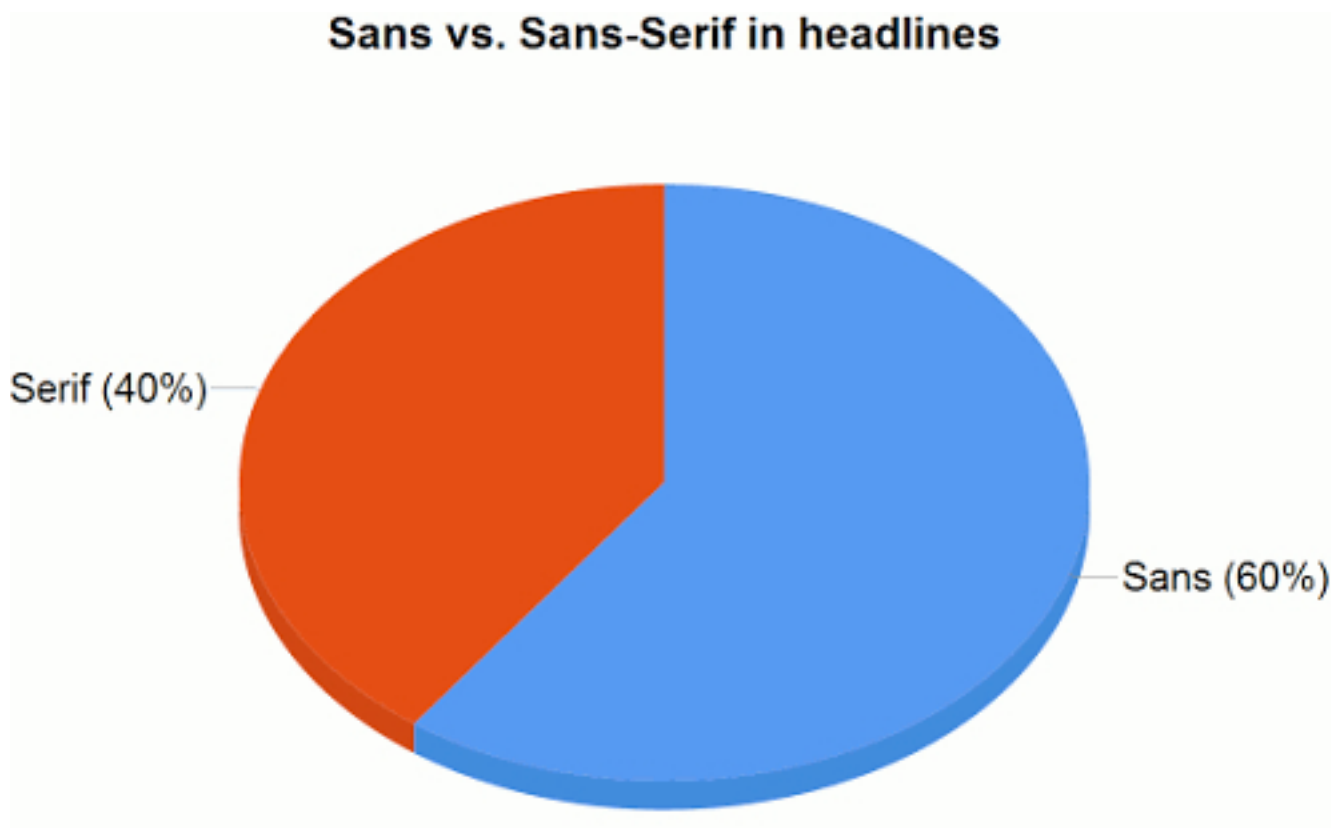
We ended up with solid data, which we evaluated and prepared for this article. Based on the statistics, we have identified several “rules of thumb” for working with type. Please note that these rules can often, but not always, be considered best practice.

1. Serif vs. Sans-serif

Whether designers should use serif or sans-serif fonts for body copy is one of the most discussed and unresolved questions about typesetting on the Web. Some designers prefer to give their headlines serifs (which are short,

decorative lines at the end of letter strokes) to give them more appeal. The main reason to choose a serif font for your headlines is that, at a large size, serif fonts are easy to read and look great. The contrast between a serif font for headlines and a sans-serif font for body copy can be interesting, too.

Some designers prefer serif fonts for body copy because they believe the lines at the end of letter strokes help guide readers from one letter to the next, making scanning and reading more comfortable.

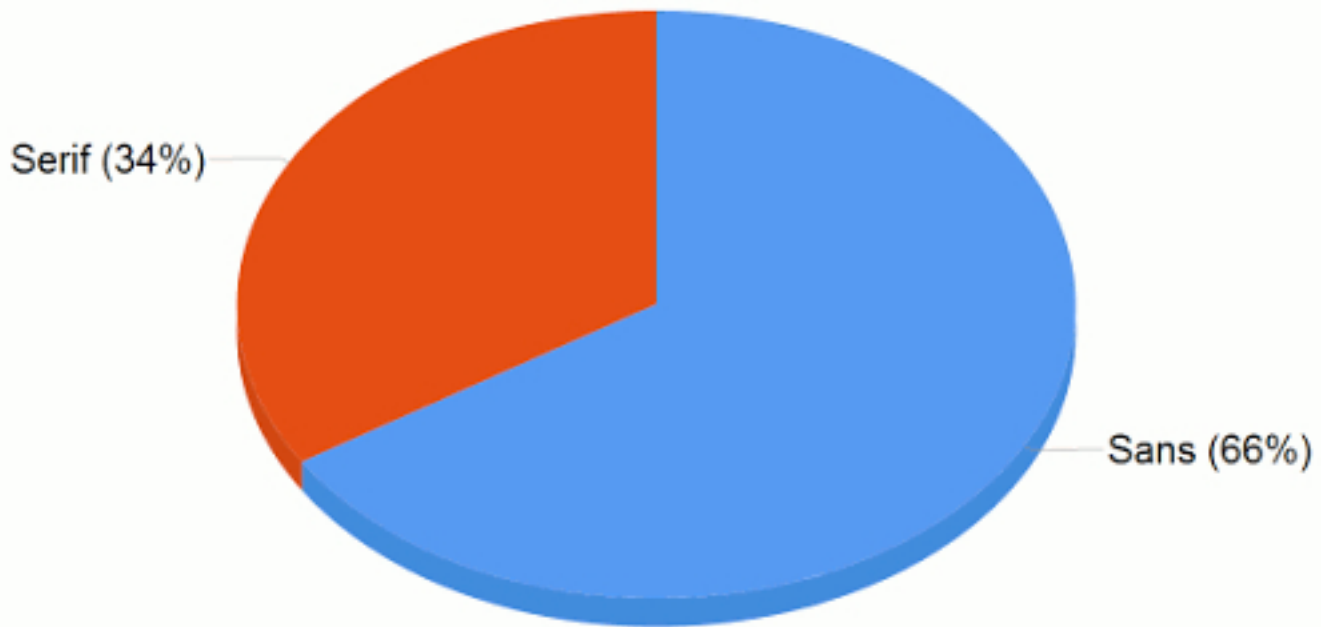


According to our study, sans-serif fonts are still more popular than serif fonts for headlines, although they seem to have dropped in popularity in recent years.

-
- 60% of websites use sans-serif typefaces for headlines, mostly Arial, Verdana, Lucida Grande and Helvetica. Among them: [CNN](#), [ArsTechnica](#), [Slate](#), [BBC](#) and [NewScientist](#).
 - Only 34% of websites use a serif typeface for body copy. Among them: [New York Times](#), [Typographica](#), [Time](#), [AIGA](#) and [Newsweek](#).
 - The most popular serif typefaces for headlines are Georgia (28%) and Baskerville (4%).
 - The most popular serif typefaces for body copy are Georgia (32%) and Times New Roman (4%).
 - The most popular sans-serif typefaces for headlines are Arial (28%), Helvetica (20%) and Verdana (8%).
 - The most popular sans-serif typefaces for body copy are Arial (28%), Verdana (20%) and Lucida Grande (10%).

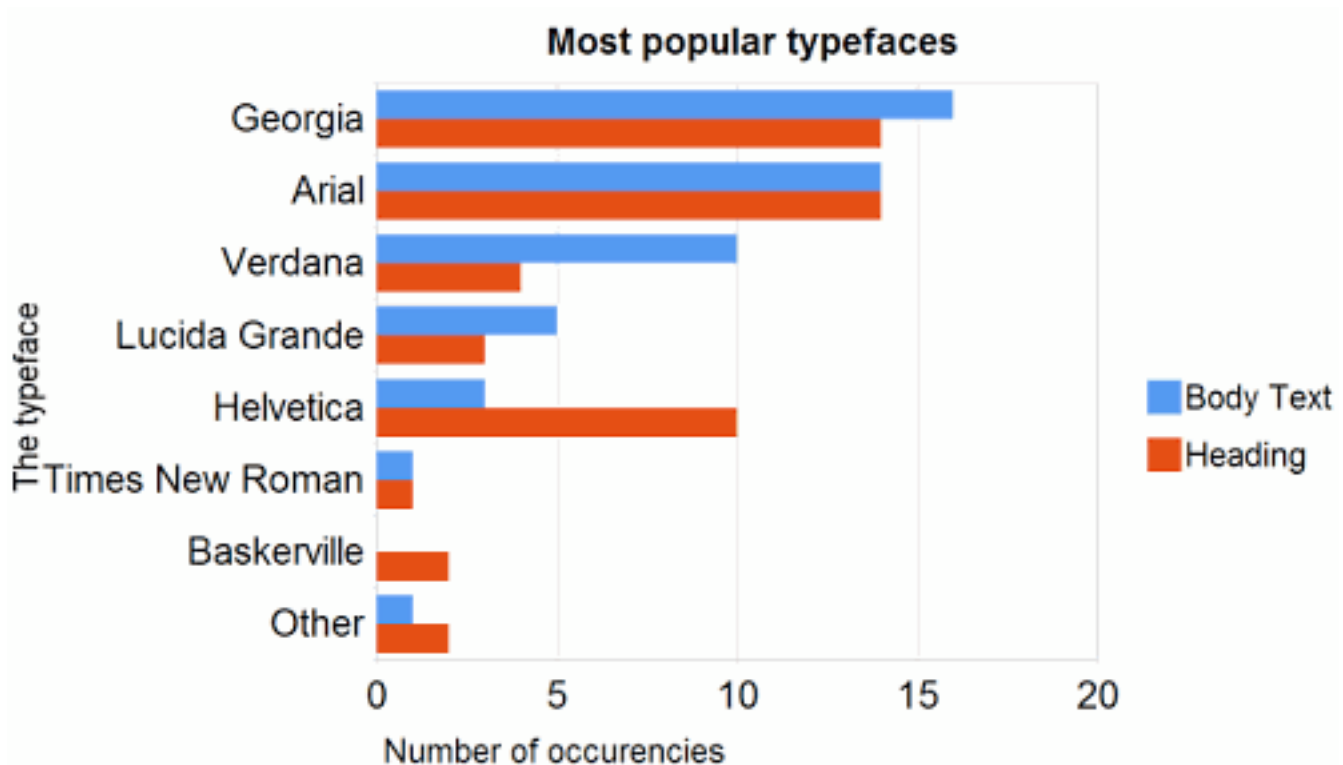
Two thirds of the websites we surveyed used sans-serif fonts for body copy. The main reason is probably because, despite the growing popularity of advanced font replacement techniques, such as [Cufón](#), most designers stick to the core Web fonts, which essentially give them only two viable options: Georgia and Times New Roman. And because of the stigma attached to Times New Roman (that it often makes a modern website look outdated), they're left with only Georgia. Sans-serif fonts offer a wider variety of options for the Web.

Sans vs. Sans-Serif in body copy



2. Which Typeface Is Most Popular?

Surprisingly, despite the growing popularity of font replacement techniques and growing availability of new pre-installed fonts (e.g. Windows Vista and Mac fonts), designs in our study mainly used the traditional, core Web fonts, the only exceptions being Lucida Grande (which comes installed only on Macs), Helvetica and Baskerville.



As one would expect, Arial, Georgia and Verdana are used for the majority of body copy today. In our study, around 80% of websites used one of these three fonts. For the remaining 20%, designers' favorite Helvetica is a popular choice, as is Lucida Grande.

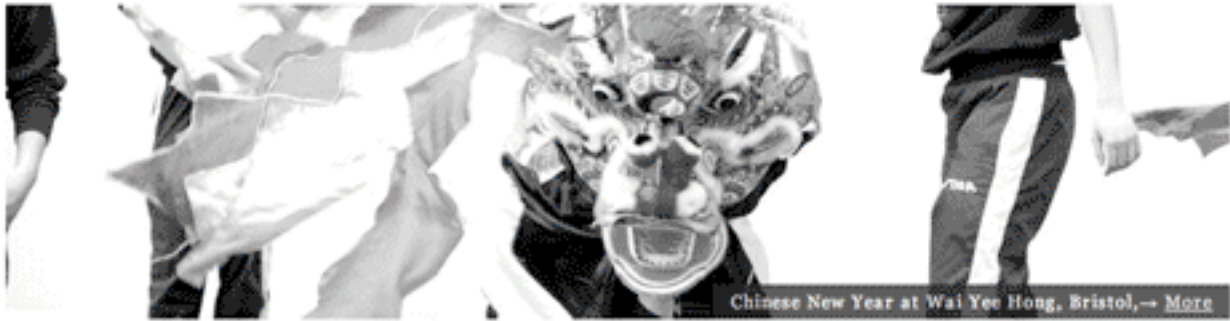
With options such as Verdana and Arial available as fall-backs, a designer really has no reason not to specify other non-standard fonts to achieve the best effect. You can learn more about advanced CSS font stacks in Nathan Ford's article [Better CSS Font Stacks](#) and CodeStyle's [Build Better CSS Font Stacks](#).



jt^{an}rin
on ge^E

pith & pulp

— not an image, but perhaps a reversion to type.



Chinese New Year at Wai Yee Hong, Bristol, → [More](#)

PREFACE

I'm JON TAN, designer, web typographer, and sometime writer and speaker in Bristol, UK.

LATELY in the LOG

Review: HTML and CSS Web Standards Solutions

— Wed, 19th Aug 2009 (7)

I'm so glad that this book exists. I've been hoping someone would write a book almost exactly like this for a...

All Change, Please — Thu, 13th Aug 2009 (31)

'One door closes, another opens' is an idiom that has always resonated with me. It reminds me that...

OSCON 2009: incoming! — Sat, 18th Jul 2009 (2)

Just a quick note. More of a test really. Can I crank out a quick post in the lounge at Bristol airport? Will the wifi not...

SkillSwap Goes Typographic — Mon, 9th Mar 2009 (12)

Right. I'm blitzing this. Two posts in one day. It's unheard of! I've finally managed to put up my slides...

CURIOUS ASIDES

[TWITTER](#) moments.

[FLICKR](#) tableaux.

[DELICIOUS](#) bookmarks.

[UPCOMING](#) events.

[EXPLORE ASIDES](#) →

Jon Tan uses serif typeface Baskerville for headlines and serif typeface Georgia for body copy.

Verdana is used minimally for headlines. Only 10 websites use it for body copy to begin with, and only four use it for headlines. The main reason is

that Verdana puts a lot of spacing between letters, which makes it not as tidy to read at a large size. If you are going to use it for headlines, you may want to take advantage of the CSS `letter-spacing` property. Georgia and Arial are most popular fonts for headings.

Finally, we note that “alternative” fonts are used much more for headlines than for body copy. Designers seem more willing to experiment with their headings than with the main body. If you want to bring some typographic variation into your next design, headings may be the easiest place to start.

3. Light Or Dark Background?

We were curious to learn the extent to which designers were willing to experiment with dark background colors. We looked out for any typography-oriented websites that had a dark color scheme and were surprised to find not a single one.



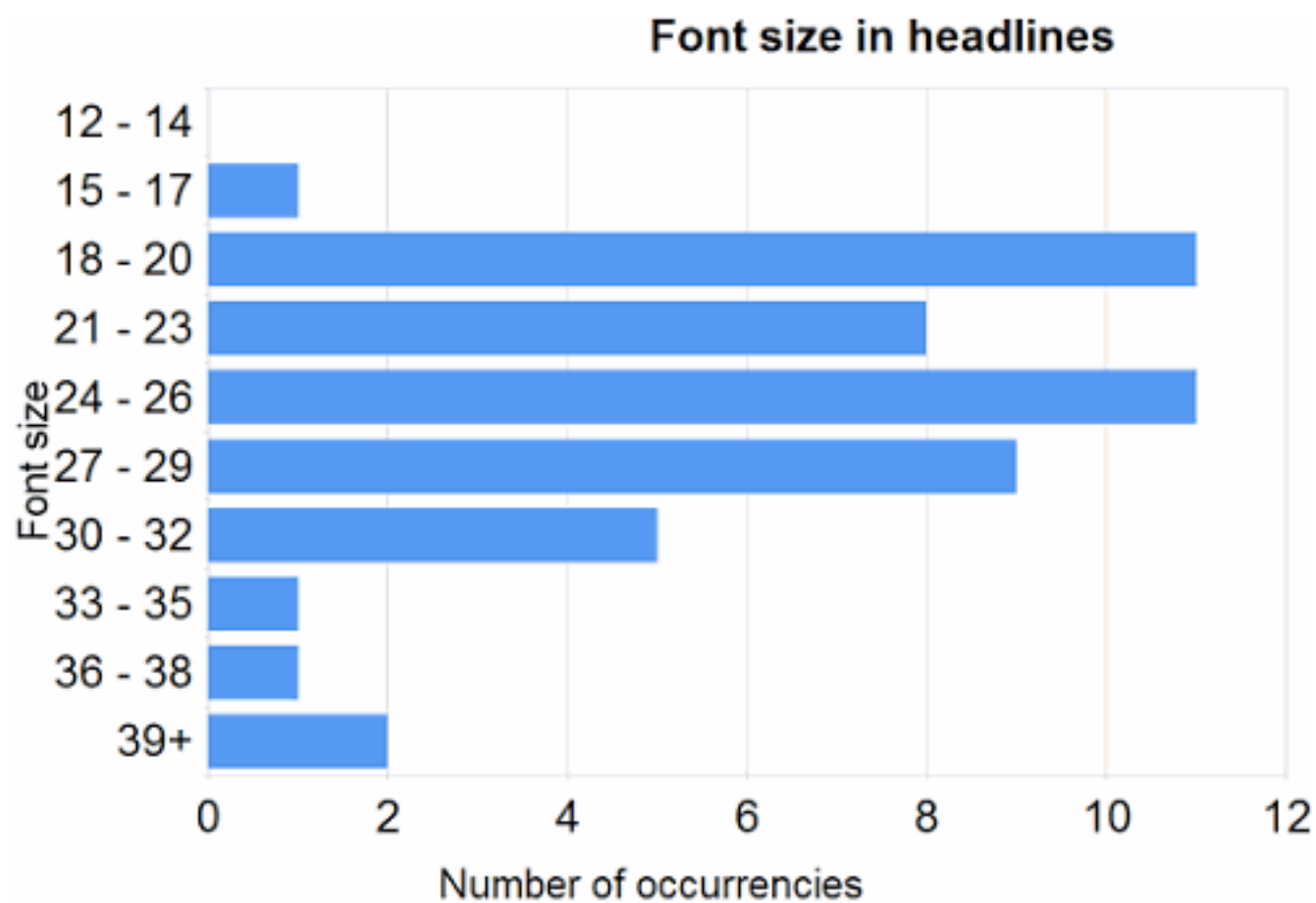
The New Yorker has a light color scheme, with Times New Roman used for headlines and body copy.

Pure white background for body copy won by a landslide. However, many of the designs avoid the high contrast of pure white on pure black; text color is often made a bit lighter than pure black. Designers clearly focus on legibility and avoid experimenting with background colors. The contrast of

black on white is easy to read and is, at least among these websites, the status quo.

4. Average Font Size For Headlines

Of course, the choice of headline font size depends on the font used in the design. In any case, in our study by far the most popular font sizes ranged from 18 to 29 pixels, with 18 to 20 pixels and 24 to 26 pixels being the most popular choices.



Our study didn't yield any clear winners. The average font size for headings is 25.6 pixels. But note that any size between 18 and 29 pixels could be effective; it depends, after all, on how your headings fit the overall design

of your website. Still, you could try experimenting with larger sizes, because displays are always getting larger, as are display resolutions.

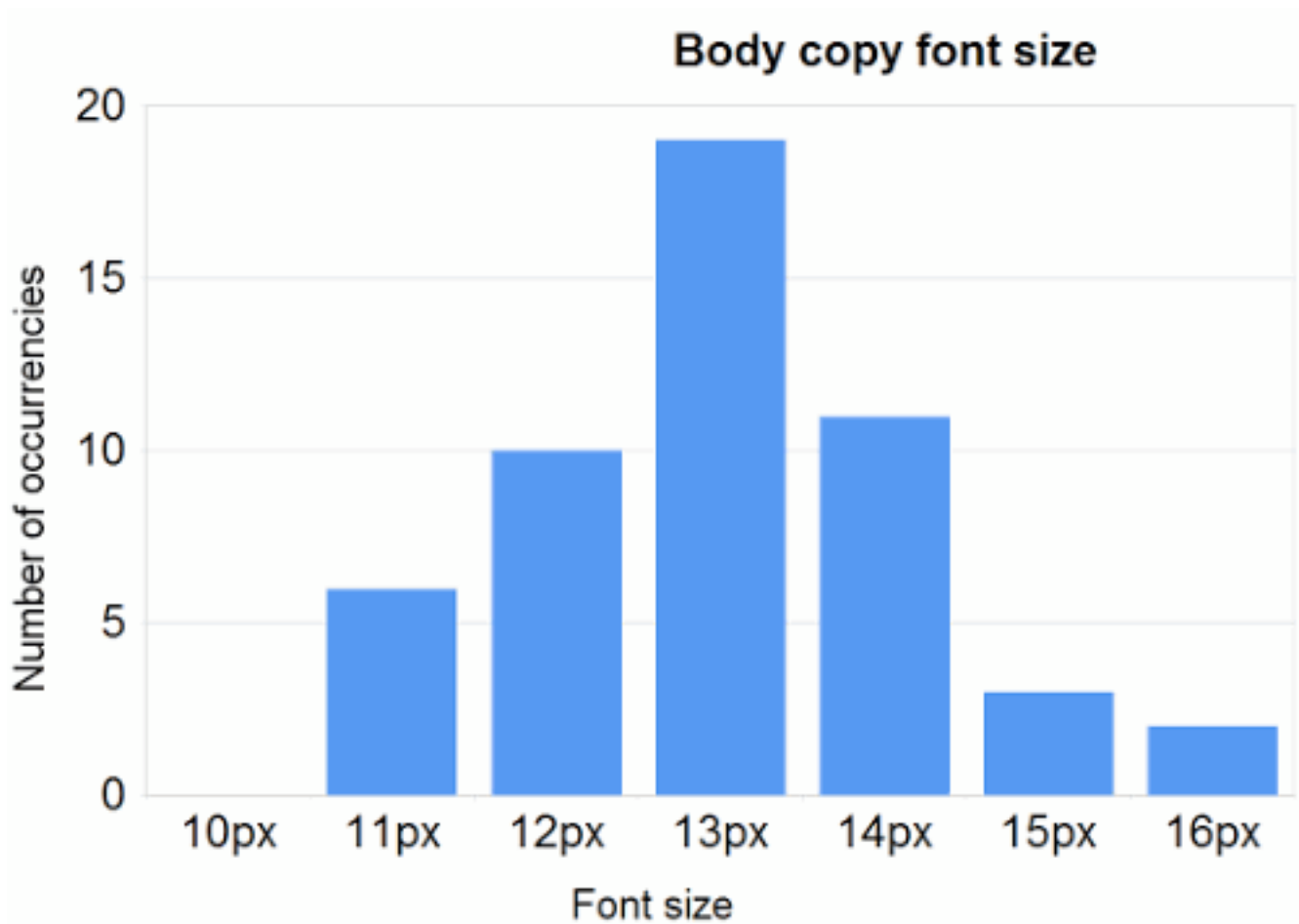
An obvious outlier is [Wilson Miner](#) (screenshot below), who uses a massive font size of 48 pixels for his headlines. His website is a special case, though, because all of his posts have extremely short titles, only a few words.



www.wilsonminer.com

5. Average Font Size For Body Copy

Do you remember about seven years ago when Web designs had tiny, barely readable elements, and body copy was set to 8 pixels in Tahoma? Small font sizes are out, and more and more modern designers are turning to large font sizes. From our sample size, we saw a clear tendency towards sizes between 12 and 14 pixels. The most popular font size (38%) is 13 pixels, with 14 pixels slightly more popular than 12 pixels. Overall, the average font size for body copy is 13 pixels.



We noted (as one would expect) more and more attention being paid to the smallest typographic details. Dashes, quotes, footnotes, author names, introductory text and paragraphs have been carefully set, with optimal legibility in mind. Type setting is usually very consistent, with a lot of white space, leading and padding.



[Typographica](#) uses a large font size for the introductory paragraphs of its articles, and then reverts to a normal size for the rest of text.

Heading to Body Font-Size Ratio

To better understand the relationship between heading and body font size, we divided each website's heading font size by its body font size. We took

the average of these ratios and derived a **rule of thumb** for you to work with:

Heading font size ÷ Body copy font size = 1.96

The overall value, then, is 1.96. This means that when you have chosen a font size for your body copy, you may want to **multiply it by 2** to get your heading font size. This, of course, depends on your style; the rule of thumb won't necessarily give you the optimal size for your particular design.

Another option is to use a traditional scale (6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 21, 24, 36, 48, 60, 72) or the Fibonacci sequence (e.g. 16 – 24 – 40 – 64 – 104) to get natural typographic results.

6. Optimal Line Height For Body Copy

Leading (or line height) will always depend on your chosen font size and measure (or line length). In general, the longer the measure, the longer the leading should be. Therefore, presenting a chart of the most popular choices for leading in pixels wouldn't make sense here. More appropriate would be for you to use a relative unit, such as an em or percentage value, that determines the relation between leading and measure and between leading and font size.

According to our study:

- **line height (pixels) ÷ body copy font size (pixels) = 1.48**

Note that 1.5 is a value that is commonly recommended in classic typographic books, so our study backs up this rule of thumb. Very few websites use anything less than that. The number of websites that go above 1.48 decreases as you get further from this value.

- **line length (pixels) ÷ line height (pixels) = 27.8**

The average line length is 538.64 pixels (excluding margins and paddings) which is pretty large, considering that many websites still use 12 to 13 pixels for their body copy font size.

- **space between paragraphs (pixels) ÷ line height (pixels) = 0.754**

We were surprised by this result. It turns out that paragraph spacing (i.e. the space between the last line of one paragraph and the first line of the next) rarely equals the leading (which would be the main characteristic of perfect vertical rhythm). More often, paragraph spacing is just 75% of the paragraph leading. The reason may be that leading usually includes the space taken up by descenders, and because most characters do not have descenders, additional white space is created under the line.

When It's Cool to Say Cool (and when it's

by [Steven Heller](#) | August 18, 2009

It's never cool to begin an article with a dictionary definition of anything. It in sounds like the writer is unable to start the article with an original lede. None cool to provide the following def expression, and thus uncool).

The American Heritage Dictiona

“

From Black English usage written English in the ear responsible for its popular generally positive sentime most such words. In order novelty.

<P>

Font & Text

+ font-family	: Georgia,serif
+ font-size	: 13.2167px
+ line-height	: 19.8333px

Color & Background

+ background-	: 0% 0%
+ position	color : #333333

Box

+ height	: 79.3333px
+ width	: 589px
+ margin	: 8px 0 12px 0

Positioning

[AIGA](#) is a perfect example of optimal leading. Its font size is 13.21 pixels (converted from ems) and its line height is 19.833 pixels (conversion from ems). In fact, $19.8333 \div 13.2167 = 1.5011$.

So, once you have decided on your body copy font size, multiplying this value by 1.5 will give you the optimal line height. Once you've got that, you can multiply this new value by 27.8 to get your optimal line length. Note that the layout will also need gutters, margins and padding to let the body copy breathe.

Faster-growing flu vaccine could speed production

- › 20 August 2009
- › Magazine issue 2722. [Subscribe](#) and get 4 free issues.
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AS THE world awaits the next wave of the [swine flu pandemic](#), delays plague vaccine production. Now new, faster-growing strains of the vaccine virus could speed up the process.

The first batches of pandemic vaccine were made in early August. After testing is completed, the rate of vaccination will depend on how fast the vaccine virus can be grown in chicken eggs. So far even the best strains have grown [disappointingly slowly](#), at half the rate of ordinary flu vaccine strains. The US admitted late last week that it will have only 45 million doses of vaccine by mid-October, compared with the 120 million it originally forecast.

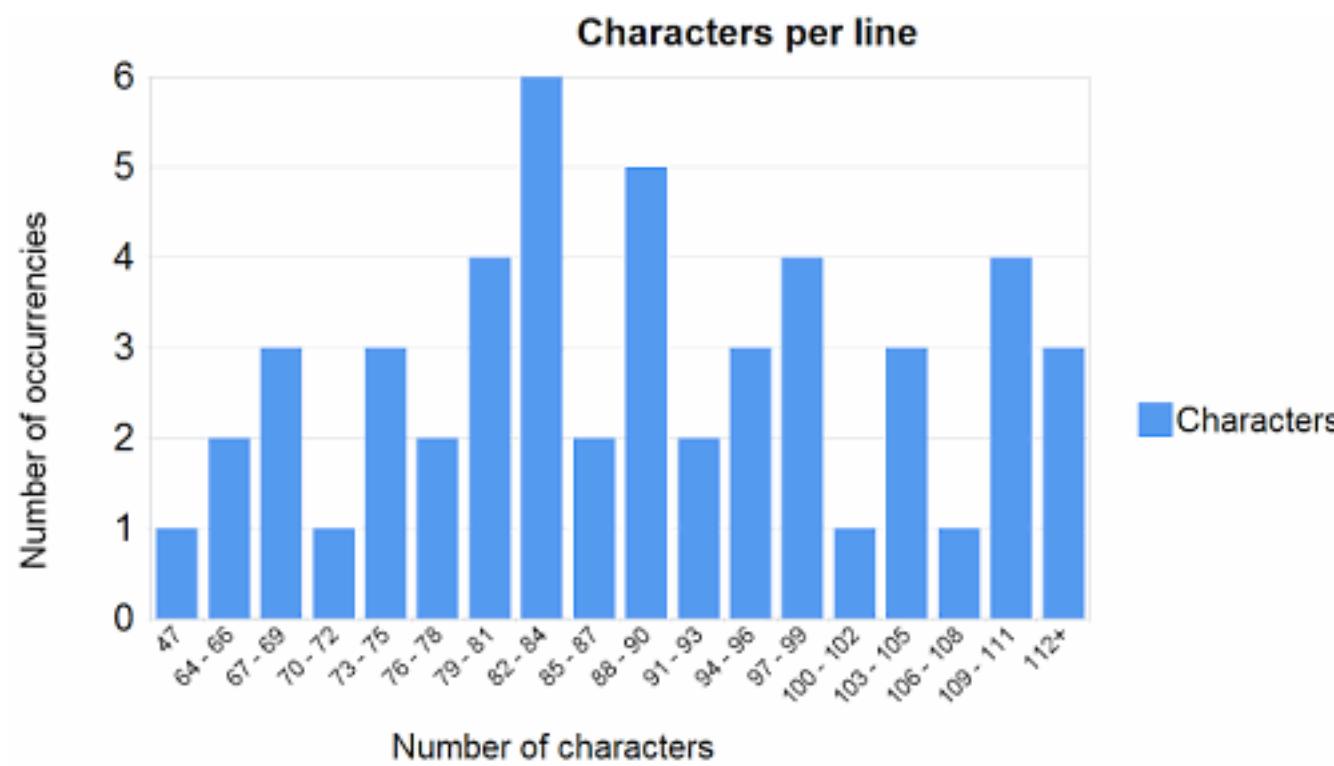
Now researchers at the [New York Medical College](#) in Valhalla have created improved strains by growing one sample of the virus repeatedly in chicken eggs until it adapted and grew faster. They will send two to vaccine manufacturers this week, says John Wood of the UK's National Institute for Biological Standards and Control (NIBSC).

[The New Scientist](#) has 20 pixels of spacing between paragraphs.

7. How Many Characters Per Line?

According to a classic rule of Web typography, 55 to 75 is an optimal number of characters per line. Surprisingly, our study shows that most websites have a higher number. We counted how many characters could fit on one line using the design's default font size. The result, which is an average of 88.74 characters per line (maximum), is extremely high. Of

course, this maximal number is different from the average number of characters per line, which in general ranges between 75 and 85 characters per line. Still, the range is way above the conventional range — quite peculiar.



Between 73 and 90 characters per line is a popular choice among designers, yet we also found outliers: [Monocle](#) (47 characters per line) and [Boxes and Arrows](#) (125 characters per line). To get a more exact reading for each website, you would need to take an average character count from multiple lines.

Other Findings

- 46% of websites underlined the links in their body copy, while the others highlighted only with color or a bold font weight.
- 6% of websites used some kind of image replacement for headings or body copy (e.g. [Monocle](#), [New Yorker](#), [Newsweek](#)).
- 96% of websites do not justify text.
- Websites gave their text a left padding of on average 11.7 pixels (counting from the left content area border).

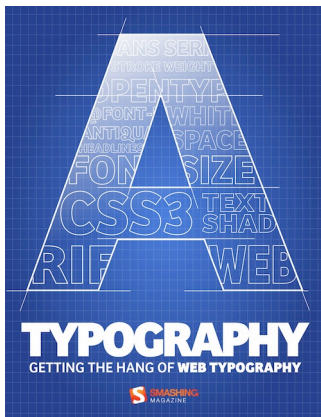
Conclusion

The study shows a clear set of common practices and guidelines for setting type in Web design. Note, though, that these findings are not scientific and should serve only as rough guidelines:

1. Either serif or sans-serif fonts are fine for body copy and headings, but sans-serif fonts are still more popular for both.
2. Common choices for headlines are Georgia, Arial and Helvetica.
3. Common choices for body copy are Georgia, Arial, Verdana and Lucida Grande.
4. The most popular font size for headings is a range between 18 and 29 pixels.
5. The most popular font size for body copy is a range between 12 and 14 pixels.
6. Header font size ÷ Body copy font size = 1.96.

-
7. Line height (pixels) ÷ body copy font size (pixels) = 1.48.
 8. Line length (pixels) ÷ line height (pixels) = 27.8.
 9. Space between paragraphs (pixels) ÷ line height (pixels) = 0.754.
 10. The optimal number of characters per line is between 55 and 75, but between 75 and 85 characters per line is more popular,
 11. Body text is left-aligned, image replacement is rarely used and links are either underlined or highlighted with bold or color.

Of course these “rules” aren’t set in stone. Rather, they are a set of rough guidelines that you can use as a basis for setting typography. Every website is unique, and you may want to modify your choices at each stage of your design to suit your layout. You can also [take a look at the spreadsheet of the study](#) and export its data for further analysis.



Interested in Typography? Check out the Smashing eBook #6: **"Getting the Hang of Web Typography"**

You can buy this eBook now from

[Apple iTunes Store](#) | [Amazon](#) | [Smashing Shop](#)

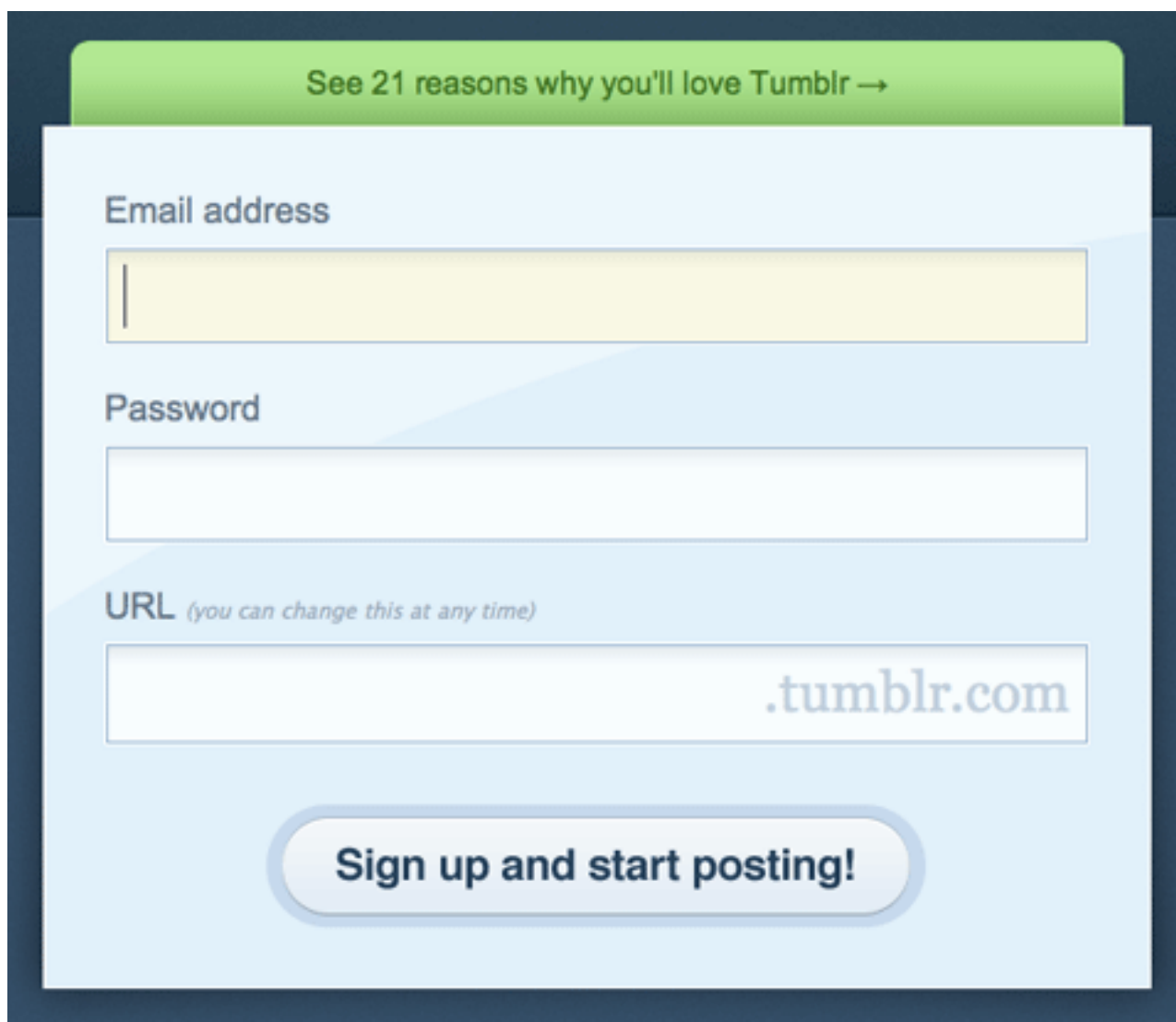
10 Useful Usability Findings and Guidelines

By Dmitry Fadeyev, September 24th, 2009

Everyone would agree that usability is an important aspect of Web design. Whether you're working on a portfolio website, online store or Web app, making your pages easy and enjoyable for your visitors to use is key. Many studies have been done over the years on various aspects of Web and interface design, and the findings are valuable in helping us improve our work. Here are 10 useful usability findings and guidelines that may help you improve the user experience on your websites.

1. Form Labels Work Best Above The Field

A [study by UX Matters](#) found that the ideal position for labels in forms is above the fields. On many forms, labels are put to the left of the fields, creating a two-column layout; while this looks good, it's not the easiest layout to use. Why is that? Because forms are generally vertically oriented; i.e. users fill the form from top to bottom. Users scan the form downwards as they go along. And following the label to the field below is easier than finding the field to the right of the label.

A screenshot of the Tumblr sign-up form. At the top, a green button with white text says "See 21 reasons why you'll love Tumblr →". Below this, the form is set against a light blue background. It features three input fields: "Email address" (a yellow field with a vertical cursor), "Password" (a white field), and "URL (you can change this at any time)" (a white field with ".tumblr.com" pre-filled in a light blue font). At the bottom, a large, rounded button with a blue gradient and white text says "Sign up and start posting!".

See 21 reasons why you'll love Tumblr →

Email address

Password

URL (you can change this at any time)

.tumblr.com

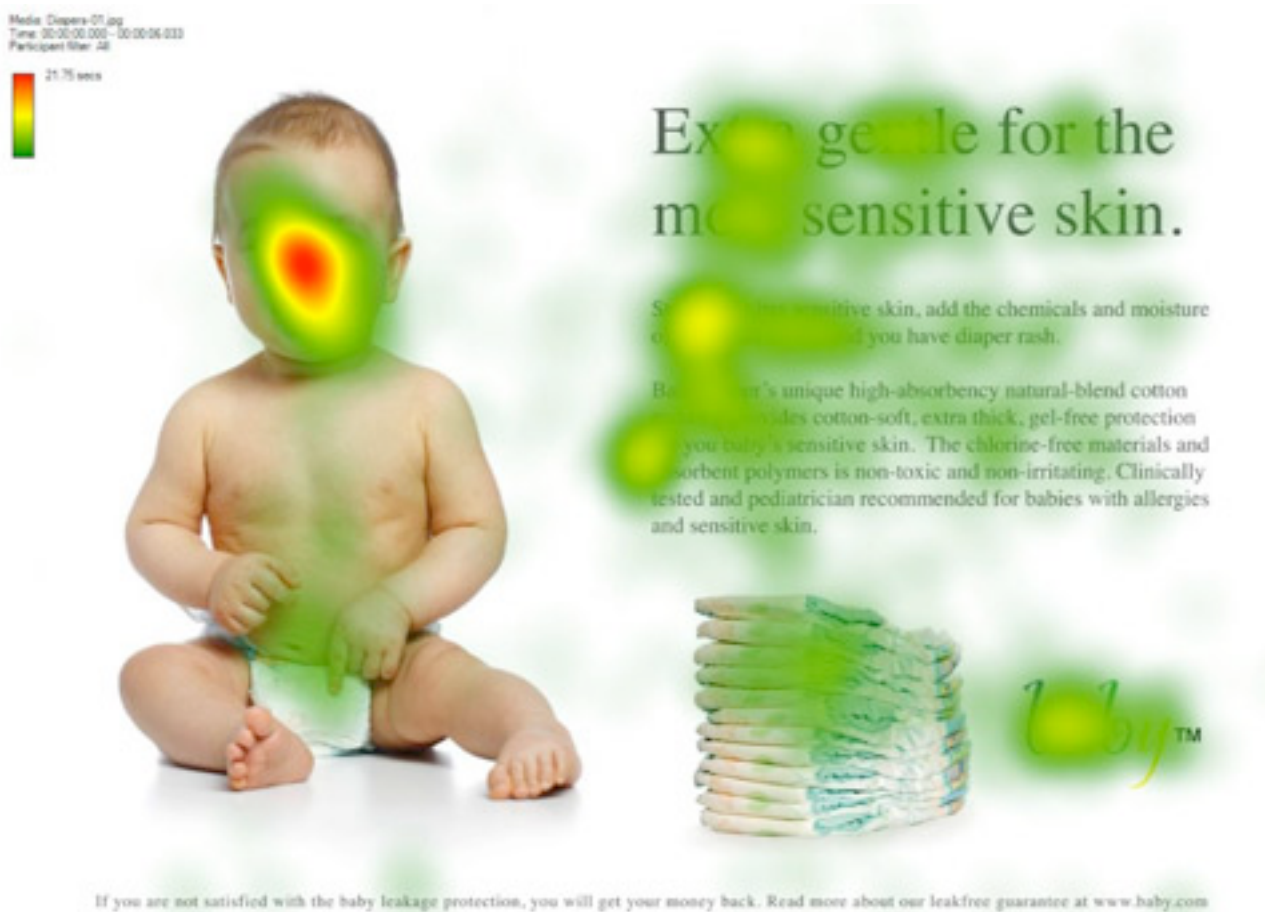
Sign up and start posting!

[Tumblr](#) features a simple and elegant sign-up form that adheres to UX Matter's recommendation.

Positioning labels on the left also poses another problem: do you left-align or right-align the labels? Left-aligning makes the form scannable but disconnects the labels from the fields, making it difficult to see which label applies to which field. Right-aligning does the reverse: it makes for a good-looking but less scannable form. Labels above fields work best in most circumstances. The study also found that labels should not be bold, although this recommendation is not conclusive.

2. Users Focus On Faces

People instinctively notice other people right away when they come into view. On Web pages, we tend to focus on people's faces and eyes, which gives marketers a good technique for attracting attention. But our attraction to people's faces and eyes is only the beginning; it turns out we actually glance in the direction the person in the image is looking in.



Eye-tracking heat map of a baby looking directly at us, from the [UsableWorld study](#).



And now the baby is looking at the content. Notice the increase in people looking at the headline and text.

Here's an [eye-tracking study](#) that demonstrates this. We're instinctively drawn to faces, but if that face is looking somewhere other than at us, we'll also look in that direction. Take advantage of this phenomenon by drawing your users' attention to the most important parts of your page or ad.

3. Quality Of Design Is An Indicator Of Credibility

Various studies have been conducted to find out just what influences people's perception of a website's credibility:

- Stanford-Makovsy Web Credibility Study 2002: Investigating What Makes Web Sites Credible Today
- What Makes A Web Site Credible? A Report on a Large Quantitative Study
- The Elements of Computer Credibility
- Elements that Affect Web Credibility: Early Results from a Self-Report Study (Proceedings of ACM CHI 2000 Conference on Human Factors in Computing Systems, v.2, New York: ACM Press)

fever^o
red hot, well read.

Top Features Demo Purchase Your Account Answers Contact

Your current feed reader is full of unread items. You're hesitant to subscribe to any more feeds because you **can't keep up** with your existing subs. Maybe you've even **abandoned feeds altogether**.

Fever takes the temperature of your slice of the web and shows you what's hot.

Features

106.7°

While It's Hot Fever reads your feeds and picks out the most frequently talked about links from a customizable time period. Unlike traditional aggregators, Fever works better the more feeds you follow.

No Pressure By default Fever hides unread counts to spare you unsavory unread item guilt but sometimes you want to keep an eye on those climbing numbers. Control unread counts on a global, group or feed level.

Stay Hydrated Fever integrates with the popular Mac OS X single-site browser factory [Fluid.app](#). The total number of unread items is updated in the Dock in real-time. [Download the Fever icon for Fluid.app.](#)

Take it with You Fever includes an optimized interface designed specifically for the iPhone and iPod touch so you can take the current hotness, your saved items and the rest of your unread anywhere you go.

Iconic If a picture is worth a thousand words a favicon is worth at least the title of the feed. Fever caches and embeds the favicons of all the sites you follow into a single, compressed file so reading is fast and intuitive.

Links
Personal 4
Stream

iPhone, iPhone from Type
WhatTheFont for iPhone
WhatTheFont for the iPhone

Fever Mint

We don't know if [Fever](#) app is any good, but the sleek user interface and website make a great first impression.

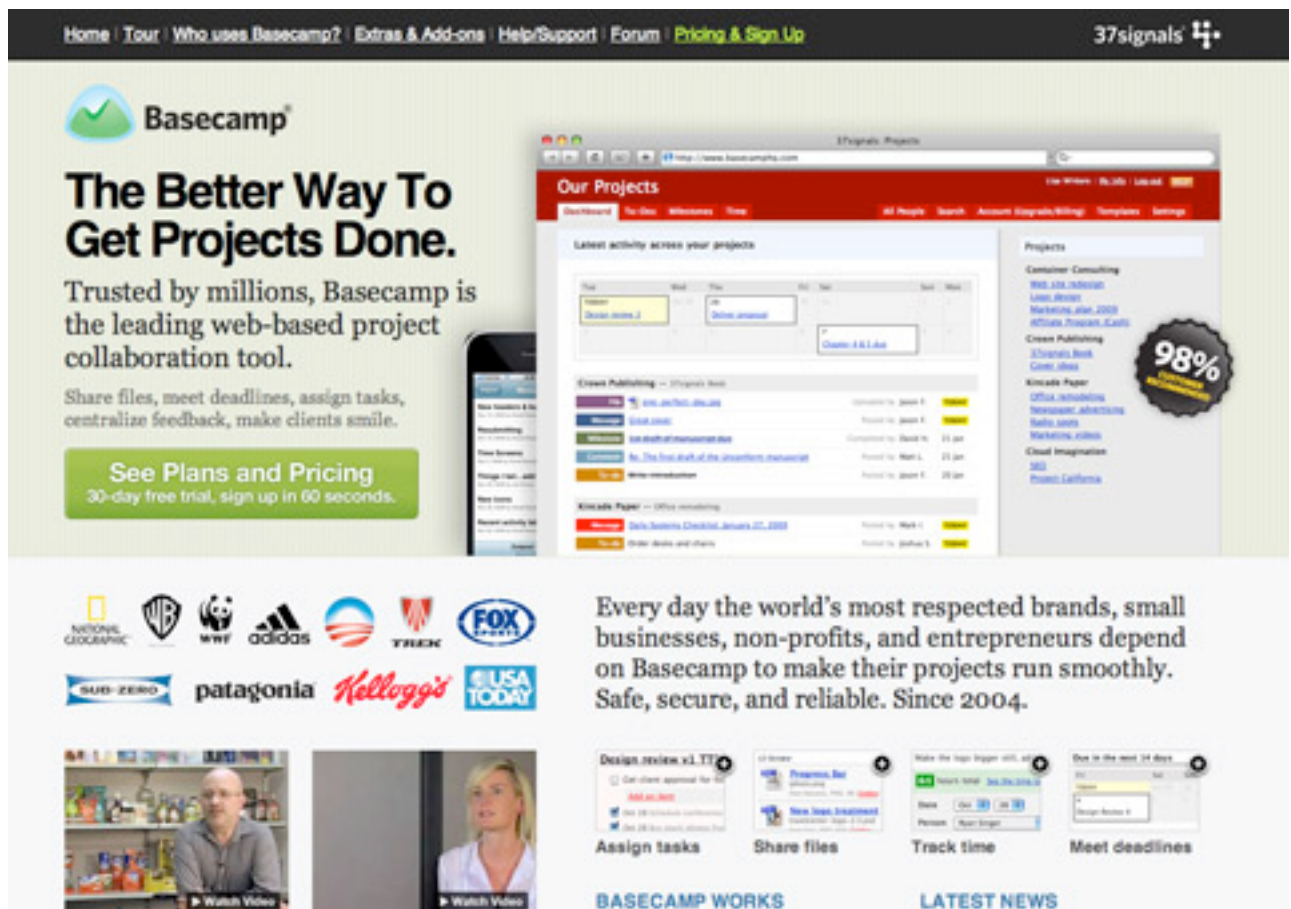
One interesting finding of these studies is that users really do judge a book by its cover... or rather, a website by its design. Elements such as layout, consistency, typography, color and style all affect how users perceive your website and what kind of image you project. Your website should project not only a good image but also the right one for your audience.

Other factors that influence credibility are: the quality of the website's content, amount of errors, rate of updates, ease of use and trustworthiness of authors.

4. Most Users Do Not Scroll

Jakob Nielsen's study on how much users scroll (in [Prioritizing Web Usability](#)) revealed that only 23% of visitors scroll on their first visit to a website. This means that 77% of visitors won't scroll; they'll just view the content above the fold (i.e. the area of the page that is visible on the screen without scrolling down). What's more, the percentage of users who scroll decreases with subsequent visits, with only 16% scrolling on their second visit. This data highlights just how important it is to place your key content on a prominent position, especially on landing pages.

This doesn't mean you should cram everything in the upper area of the page, just that you should make the best use of that area. Crowding it with content will just make the content inaccessible; when the user sees too much information, they don't know where to begin looking.



Basecamp makes great use of space. Above the fold (768 pixels high), it shows a large screenshot, tagline, value proposition, call to action, client list, videos and short feature list with images.

This is most important for the home page, where most new visitors will land. So provide the core essentials there:

1. Name of the website,
2. Value proposition of the website (i.e. what benefit users will get from using it),
3. Navigation for the main sections of the website that are relevant to the user.

However, users' habits have significantly changed since then. Recent studies prove that users are quite comfortable with scrolling and in some situations they are willing to scroll to the bottom of the page. Many users are more comfortable with scrolling than with a pagination, and for many users the most important information of the page isn't necessarily placed "above the fold" (which is because of the variety of available display resolutions, making this a quite outdated, deprecated term). So it is a good idea to divide your layout into sections for easy scanning, separating them with a lot of white space.

For further information please take a look at the articles [Unfolding the fold](#) (Clicktale), [Paging VS Scrolling](#) (Wichita University – SURL), [Blasting the Myth of the Fold](#) (Boxes and Arrows). (*thanks, Fred Leuck*).

5. Blue Is The Best Color For Links

While giving your website a unique design is great, when it comes to usability, doing what everyone else is doing is best. Follow conventions, because when people visit a new website, the first place they look for things are in the places where they found them on most other websites; they tap into their experience to make sense of this new content. This is known as usage patterns. People expect certain things to be the same, such as link colors, the location of the website's logo, the behavior of tabbed navigation and so on.

All (25)

[Android \(7\)](#)

[Apps \(4\)](#)

[Communication \(3\)](#)

[Maps \(5\)](#)

[Search \(12\)](#)

[Other \(1\)](#)

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Experiments



[Fast Flip](#)

Blindingly fast overviews of headline pages of top newspapers.

September 14, 2009 ★★★★★ 130 Ratings [Details and feedback »](#)



[Android Scripting Environment](#)

Android Scripting Environment brings scripting languages to Android.

August 25, 2009 ★★★★★ 17 Ratings [Details and feedback »](#)



[Google Listen](#)

Android app providing a personalized audio news-magazine loaded with fresh and interesting news.

August 20, 2009 ★★★★★ 52 Ratings [Details and feedback »](#)



[Google Checkout Store Gadget](#)

A Google Gadget that lets you set up a store in minutes by filling out a Google Docs form.

July 29, 2009 ★★★★★ 57 Ratings [Details and feedback »](#)

[Google](#) keeps all links on its websites blue for a reason: the color is familiar to most users, which makes it easy to locate.

What color should your links be? The first consideration is contrast: links have to be dark (or light) enough to contrast with the background color. Secondly, they should stand out from the color of the rest of the text; so, no black links with black text. And finally, research shows (Van Schaik and Ling) that if usability is your priority, sticking to blue for links is best. The browser's default link color is blue, so people expect it. Choosing a different color is by no means a problem, but it may affect the speed with which users find it.

6. The Ideal Search Box Is 27-Characters Wide

What's the ideal width of a search box? Is there such a thing? Jakob Nielsen performed a usability study on the length of search queries in website search boxes (Prioritizing Web Usability). It turns out that most of today's search boxes are too short. The problem with short boxes is that even though you can type out a long query, only a portion of the text will be visible at a time, making it difficult to review or edit what you've typed.

The study found that the average search box is 18-characters wide. The data showed that 27% of queries were too long to fit into it. Extending the box to 27 characters would accommodate 90% of queries. Remember, you can set widths using ems, not just pixels and points. One em is the width and height of one "m" character (using whatever font size a website is set to). So, use this measure to scale the width of the text input field to 27-characters wide.



[Google](#)'s search box is wide enough to accommodate long sentences.



Apple's search box is a little too short, cutting off the query, "Microsoft Office 2008."

In general, search boxes are better too wide than too short, so that users can quickly review, verify and submit the query. This guideline is very simple but unfortunately too often dismissed or ignored. Some padding in the input field can also improve the design and user experience.

7. White Space Improves Comprehension

Most designers know the value of white space, which is the empty space between paragraphs, pictures, buttons and other items on the page. White space de-clutters a page by giving items room to breathe. We can also group items together by decreasing the space between them and increasing the space between them and other items on the page. This is important for showing relationships between items (e.g. showing that *this* button applies to *this* set of items) and building a hierarchy of elements on the page.

STARTUPS AND WEB BUSINESS

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[GUEST POST](#)
[NETSETTING!](#)
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How to Get a Lot Done – 7 Tips to Achieve More

Editor's Note: I originally wrote this for [ZenHabits](#) back in [June 2008](#), but I've brought it over as I think NS readers will find it interesting!

Have you ever written out a list of goals you'd like to achieve and thought, 'How can I get all this done'? Or seen an opportunity that you've had to pass by because you are just flat out? Life is a torrent of choices and possibilities, and often it's hard to let them go. Should you compromise? Or do you just need a better game plan?




Photo by Matthew Hogan Photography

As an easily excitable person, I have a really hard time constraining myself to doing just a few things. Every project seems worth doing, every opportunity worth taking. Still I know that for many people, work is a way to make enough money to relax and enjoy life. If that sounds like you, then you may not get much out of this article. However, if your days are filled to the brim and yet you still can't wait to start that new project, then I am speaking to you! [\(more...\)](#)

TIPS
 SEPTEMBER 10TH
 COLLABORATED
 23 COMMENTS

Find a Freelancer
POST A FREE JOB ADVERT

RSS Updates
SUBSCRIBE VIA THE FEED

SUBSCRIBE VIA EMAIL

Follow via Twitter
UPDATES AND MORE

SEND US YOUR CONTRIBUTION

2259 readers
BY PEREGRINE

Notice the big content margin, padding and paragraph spacing on [The Netsetter](#). All that space makes the content easy and comfortable to read.

White space also makes content more readable. A study (Lin, 2004) found that good use of white space between paragraphs and in the left and right margins increases comprehension by almost 20%. Readers find it easier to focus on and process generously spaced content.

In fact, according to Chaperro, Shaikh and Baker, the layout on a Web page (including white space, headers, indentation and figures) may not

measurably influence performance but does influence user satisfaction and experience.

8. Effective User Testing Doesn't Have To Be Extensive

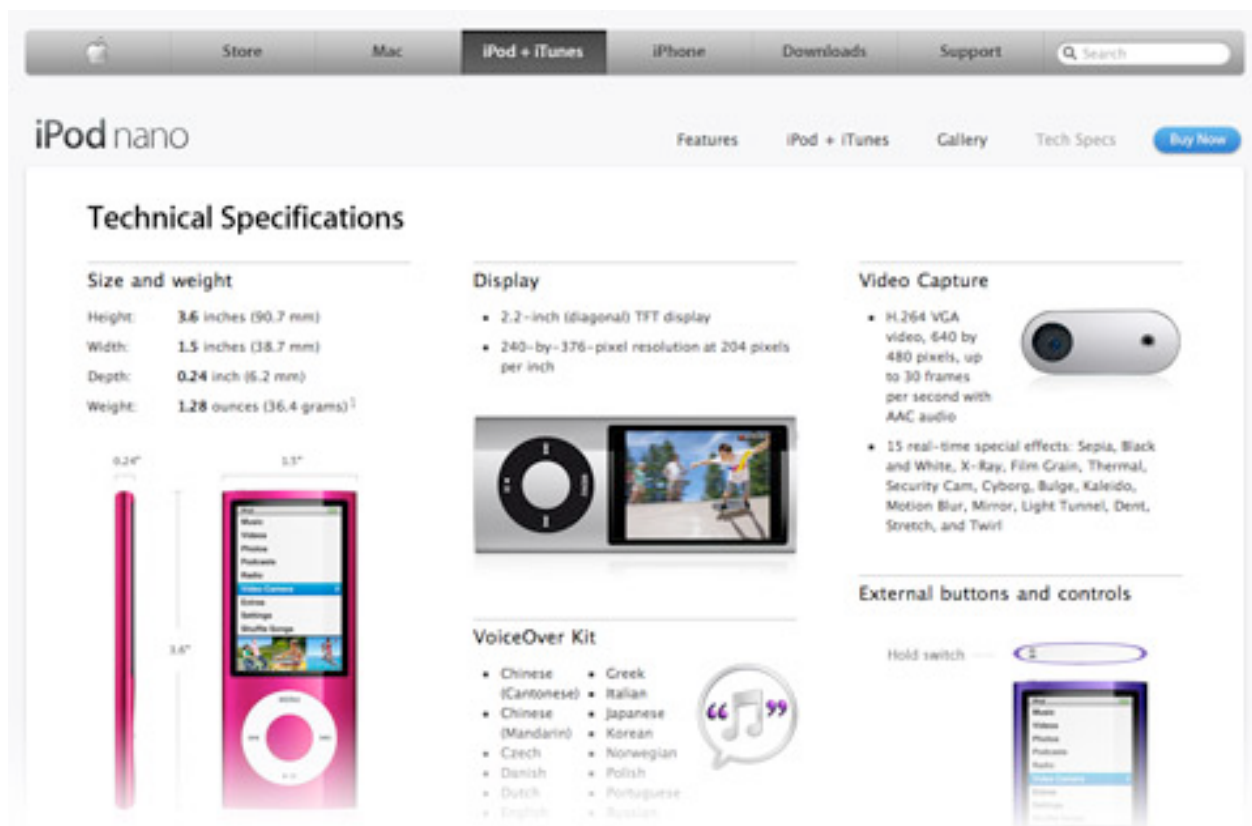
[Jakob Nielsen's study](#) on the ideal number of test subjects in usability tests found that tests with just five users would reveal about 85% of all problems with your website, whereas 15 users would find pretty much all problems.



The biggest issues are usually discovered by the first one or two users, and the following testers confirm these issues and discover the remaining minor issues. Only two test users would likely find half the problems on your website. This means that testing doesn't have to be extensive or expensive to yield good results. The biggest gains are achieved when going from 0 test users to 1, so don't be afraid of doing too little: any testing is better than none.

9. Informative Product Pages Help You Stand Out

If your website has product pages, people shopping online will definitely look through them. But many product pages lack sufficient information, even for visitors doing a quick scan. This is a serious problem, because product information helps people make purchasing decision. Research shows that poor product information accounts for around 8% of usability problems and even 10% of user failure (i.e. the user gives up and leaves the website) (Prioritizing Web Usability).



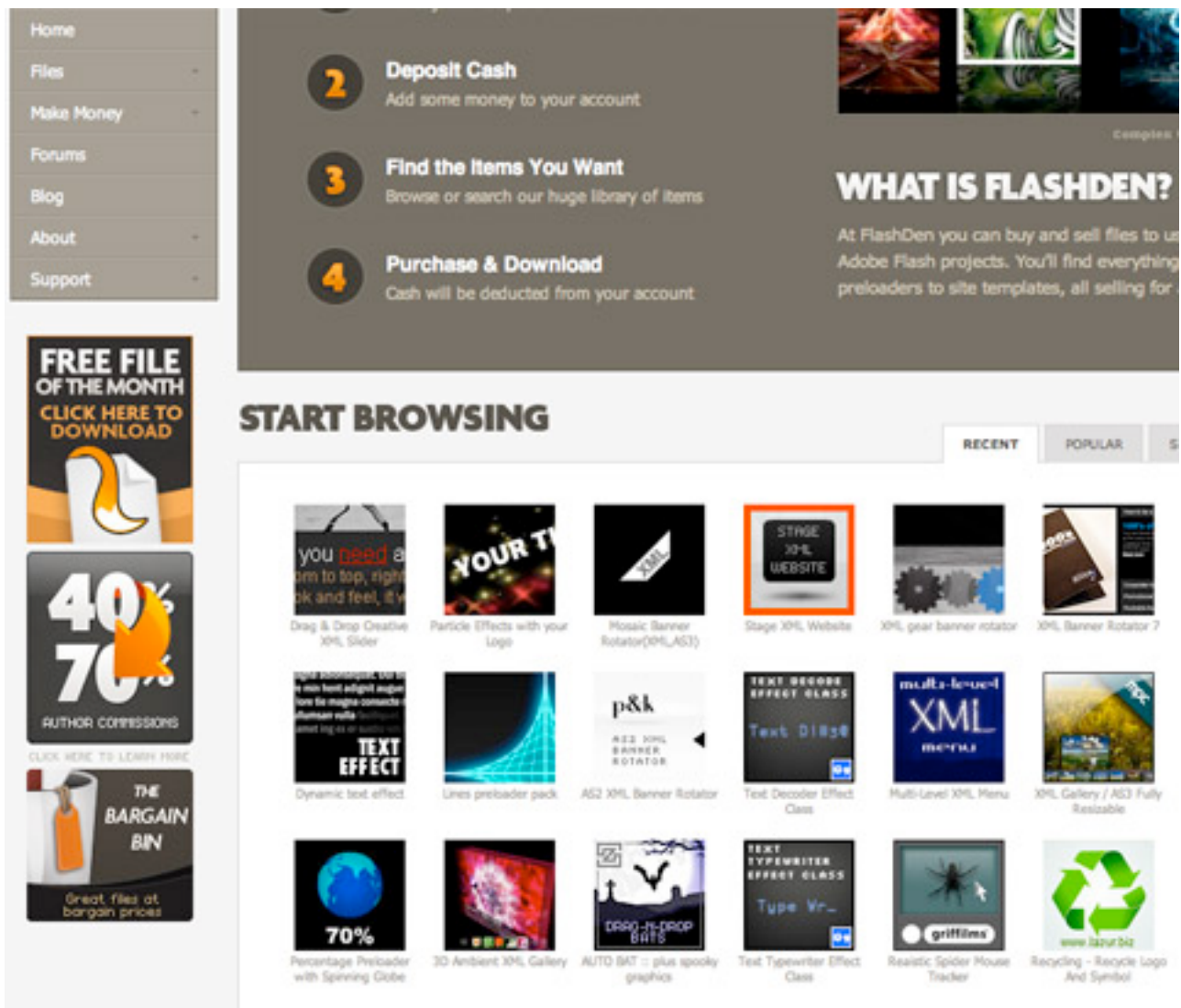
[Apple](#) provides separate "Tech Specs" pages for its products, which keeps complicated details away from the simpler marketing pages, yet provides easy access when they're needed.

Provide detailed information about your products, but don't fall into the trap of bombarding users with too much text. Make the information easy to digest. Make the page scannable by breaking up the text into smaller segments and using plenty of sub-headings. Add plenty of images for your products, and use the right language: don't use jargon that your visitors might not understand.

10. Most Users Are Blind To Advertising

Jakob Nielsen reports in his [AlertBox entry](#) that most users are essentially blind to ad banners. If they're looking for a snippet of information on a page or are engrossed in content, they won't be distracted by the ads on the side.

The implication of this is not only that users will avoid ads but that they'll avoid anything that *looks* like an ad, even if it's not an ad. Some heavily styled navigation items may look like banners, so be careful with these elements.



The square banners on the left sidebar of [FlashDen](#) are actually not ads: they're content links. They do look uncomfortably close to ad banners and so may be overlooked by some users.

That said, ads that look like content will get people looking and clicking. This may generate more ad revenue but comes at the cost of your users' trust, as they click on things they thought were genuine content. Before you go down that path, consider the trade-off: short-term revenue versus long-term trust.

Bonus: Findings From Our Case-Studies

In recent years, Smashing Magazine's editorial team has conducted a number of case studies in an attempt to identify common design solutions and practices. So far, we have analyzed Web forms, blogs, typography and portfolios; and more case studies will be conducted in the future. We have found some interesting patterns that could serve as guidelines for your next design.

Here, we'll review some of the practices and design patterns that we discovered in our case studies in this brief, compact overview, for your convenience.

According to our [typography study](#):

- **Line height (in pixels) ÷ body copy font size (in pixels) = 1.48**

1.5 is commonly recommended in classic typographic books, so our study backs up this rule of thumb. Very few websites use anything less than this. And the number of websites that go over 1.48 decreases as you get further from this value.

- **Line length (pixels) ÷ line height (pixels) = 27.8**

The average line length is 538.64 pixels (excluding margins and padding), which is pretty large considering that many websites still have body copy that is 12 to 13 pixels in font size.

- **Space between paragraphs (pixels) ÷ line height (pixels) = 0.754**

It turns out that paragraph spacing (i.e. the space between the last line of one paragraph and the first line of the next) rarely equals the leading (which would be the main characteristic of perfect vertical rhythm). More often, paragraph spacing is just 75% of paragraph leading. The reason may be that leading usually includes the space taken up by

descenders; and because most characters do not have descenders, additional white space is created under the line.

- **Optimal number of characters per line is 55 to 75**

According to classic typographic books, the optimal number of characters per line is between 55 and 75, but between 75 and 85 characters per line is more popular in practice.

According to our [blog design study](#):

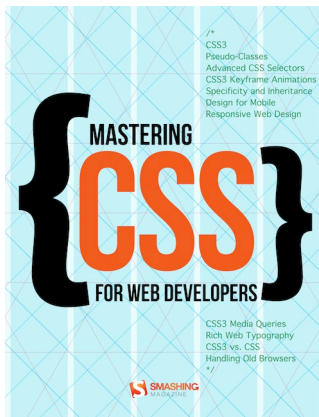
- Layouts usually have a fixed width (pixel-based) (92%) and are usually centered (94%). The width of fixed layouts varies between 951 and 1000 pixels (56%).
- The home page shows excerpts of 10 to 20 posts (62%).
- 58% of a website's overall layout is used to display the main content.

According to our [Web form design study](#):

- The registration link is titled "sign up" (40%) and is placed in the upper-right corner.
- Sign-up forms have simple layouts, to avoid distracting users (61%).
- Titles of input fields are bolded (62%), and fields are vertically arranged more than they are horizontally arranged (86%).
- Designers tend to include few mandatory fields and few optional fields.
- Email confirmation is not given (82%), but password confirmation is (72%).
- The "Submit" button is either left-aligned (56%) or centered (26%).

According to our [portfolio design study](#):

- 89% of layouts are horizontally centered, and most of them have a large horizontal navigation menu.
- 47.2% of portfolios have a client page, and 67.2% have some form of standalone services page.
- 63.6% have a detailed page for every project, including case studies, testimonials, slideshows with screenshots, drafts and sketches.
- Contact pages contain driving directions, phone number, email address, postal address, vCard and online form.



Interested in CSS? Check out the Smashing eBook #9:
"Mastering CSS for Web Developers"

You can buy this eBook now from

[Apple iTunes Store](#) | [Amazon](#) | [Smashing Shop](#)

Setting up Photoshop for Web and iPhone Development

By Marc Edwards, October 12th, 2009

Most people who have designed websites or apps in Photoshop will, at one point or another, have had issues trying to match colors in images to colors generated by HTML, CSS or code. This article aims to solve those problems once and for all.

Color Management to Match Colors Across Multiple Devices

In the print world, color management typically involves calibrating your entire workflow, from scanner or digital camera to computer display to hard proofs to the final press output. This can be quite a tall order, especially when the devices use different color spaces – matching RGB and CMYK devices is notoriously hard.

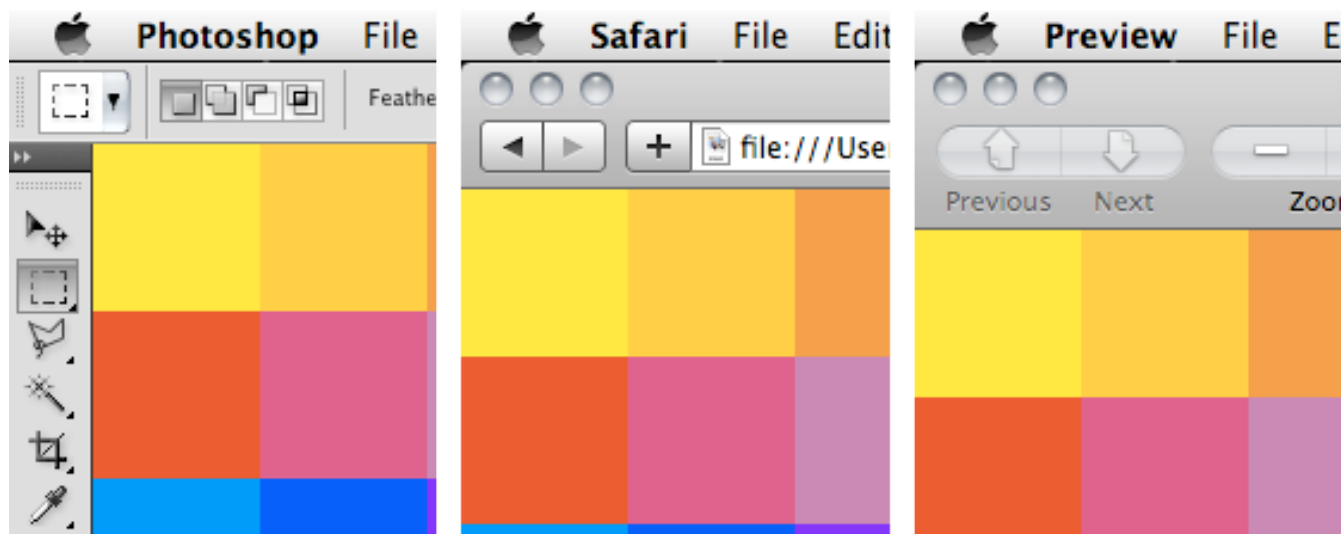
When designing or editing for TV, calibrating the main editing display and using a broadcast monitor are common; these show real-time proof of how the image will look on a typical TV in a viewer's home. In such a scenario, color management offers many benefits and is highly recommended.

When building Web and application interfaces, the situation is a little different. The final output is the same device that you're using to create the artwork: a computer display (putting aside for now differences in gamma between Windows, Mac OS X prior to 10.6 and the iPhone, which we'll cover later.)

There is a catch, though. Even though you're creating the Web or app interface on the same device that the final product will be shown on, the colors will have various sources: images (typically PNG, GIF and JPEG), style markup (CSS) and code (JavaScript, HTML, Objective-C, etc). Getting them all to match can be tricky.

The goal

When designing websites or app interfaces, we want to perfectly match the colors that are displayed on screen in Photoshop and that are saved in files with what's displayed in other applications, including Firefox, Safari and the iPhone Simulator. Not only do we want the colors to look the same, but we want the actual values saved in the files to perfectly match the colors we have defined in Photoshop. Colors should not shift or appear to shift in any way, under any circumstance.



Why is this so difficult?

Photoshop applies its color management to images displayed within its windows and to the files it saves. This is a bad thing if you're working

exclusively with RGB images for Web or on-screen user interfaces. With the default Photoshop settings, #FF0000 will actually display as #FB0018, and #BB95FF will display as #BA98FD. The differences are subtle but definitely there.

How Does Photoshop Differ from OS X and Windows?

OS X's color management is applied to the entire display at the very end of the processing chain, after the main buffer in video ram. This means that although color management is applied, the software utilities that measure color on screen (like */Utilities/DigitalColor Meter*) will report the same values that you have saved in the file or entered as your code. I believe the color management in Windows Vista and Windows 7 (Windows Color System) works in a similar fashion.

Photoshop's color management is applied only to the image portion of its windows and to the files it saves. This color correction happens as Photoshop draws the image on screen, so software utilities that measure color on screen often report different colors from the ones you have specified. It's worth noting that OS X's color management is applied on top of Photoshop's.

The best solution I've found is to disable Photoshop's color management for RGB documents as much as possible. Doing so forces the RGB colors that are on screen and saved to the file to match the actual color value. If you need to calibrate your monitor for Web and app design work, then you would best be served by changing it at the OS level.

Disabling color management used to be quite easy in Photoshop CS2 and all versions prior, but it now requires a little more skill.

Disabling Photoshop's RGB Color Management

These instructions are for Photoshop CS5 on Mac and Windows. Setting up CS4 is very similar.

Step 1: Go to *Edit* → *Color Settings* and set the working space for RGB to *Monitor RGB*.

Step 2: Open a document and go to *Edit* → *Assign Profile*, then set it to *Working RGB*. This must be done for every single document you work on.

Step 3: Ensure *View* → *Proof Colors* is turned off.

Step 4: When saving files with *Save for Web & Devices*, ensure that *Convert to sRGB* is turned off. If you're saving a JPEG file, then also turn off *Embed Color Profile* (you may want this turned on for certain photos, but chances are you'll want it off for interface elements and icons).

Difference Between “Assign Profile” and “Convert To Profile”

Now would be a good time to mention the difference between *Assign Profile* and *Convert to Profile*, so that you know which to use when.

Each Photoshop document contains a color profile that's separate from the actual color data stored for each pixel. *Assign Profile* simply changes the profile in the document, without affecting any of the color data. It's a non-destructive action: you can assign a new color profile to your documents as often as you like without doing any damage. Assigning a new profile may change the way your document appears on screen, but the data contained in the file will remain unaltered.

Convert to Profile is quite different. Not only does it assign a color profile to the document, but it tries to keep your image looking the same on screen. It does this by processing the color data contained in the file for each pixel. Converting to a new profile will more likely preserve a document's color on screen, but the data contained in the file will be permanently altered. Use with caution.

If you're copying layers from one Photoshop document to another, you will want to ensure that the documents have been assigned the same color profile.

Illustrator is the Same as Photoshop

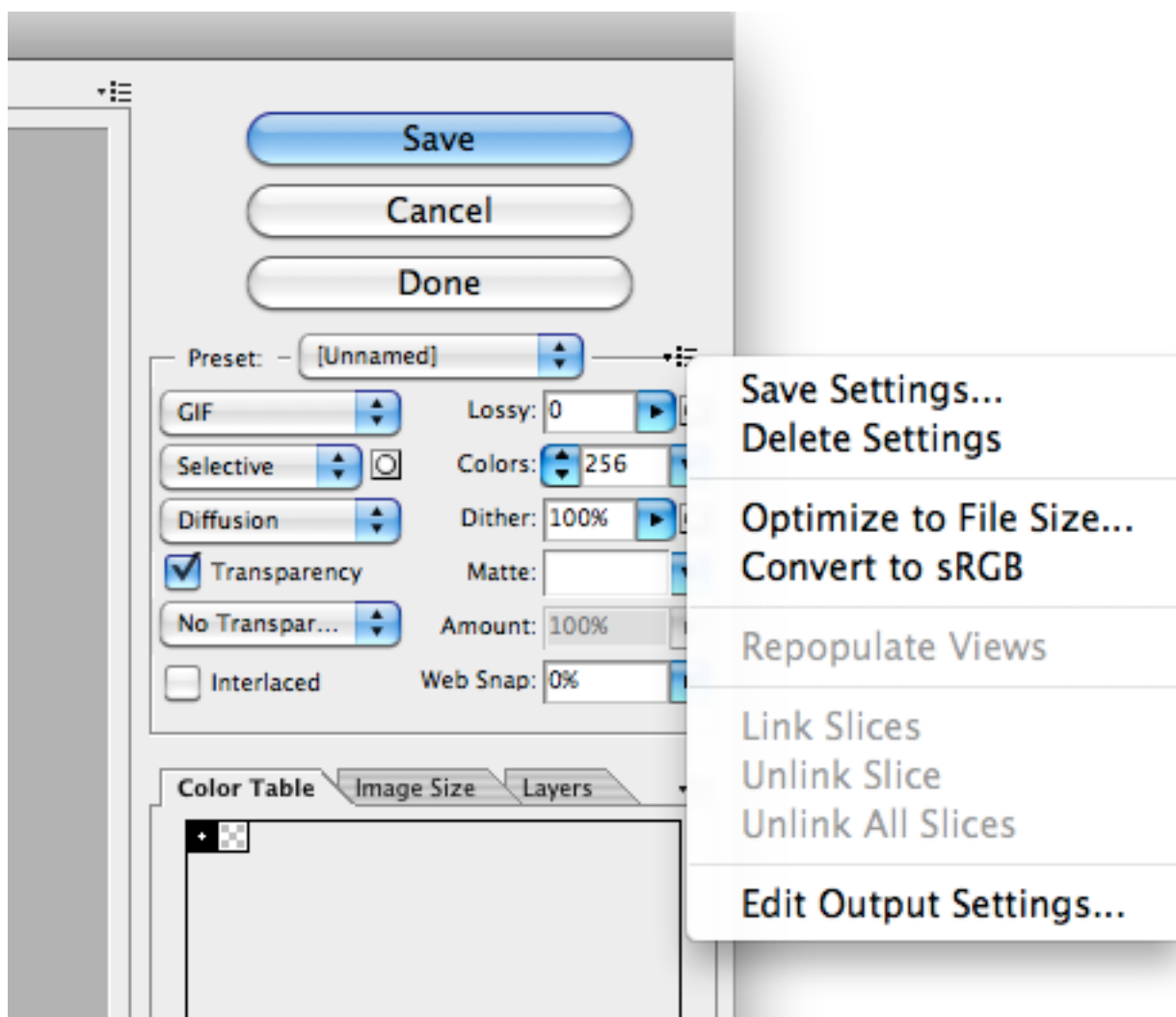
If you would like images saved in Illustrator or imported from Illustrator to Photoshop to match as well, then follow the steps below. These instructions are for Illustrator CS5 on Mac and Windows. Setting up Illustrator CS4 is very similar.

Step 1: Go to *Edit → Color Settings*, and set the working space for RGB to *Monitor RGB*.

Step 2: Open the document and go to *Edit → Assign Profile*. Then set it to *Working RGB*. This must be done for every single document you work on.

Step 3: Ensure that *View → Proof Colors* is turned off.

Step 4: When saving files with *Save for Web & Devices*, ensure that *Convert to sRGB* is turned off. If you're saving a JPEG file, then also turn off *Embed Color Profile* (again, you may want this turned on for certain photos, but chances are you'll want it off for interface elements and icons).



Gamma Differences

Windows has used a gamma of 2.2 since its introduction. Mac OS X has used a gamma of 1.8 for all versions except Snow Leopard (the latest release), which uses 2.2. What does this mean? Prior to Snow Leopard, Web pages looked darker on Windows. Thankfully, both operating systems are now in sync, so a Web page should look very similar on a Mac and PC that use the same monitor.

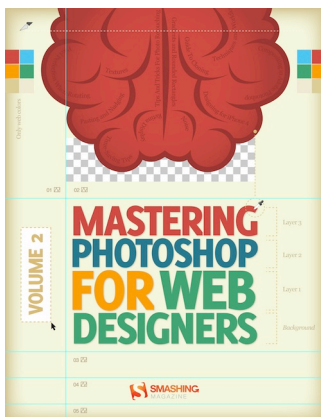
Final Check for iPhone UI

Your iPhone or iPod's screen and calibration will likely be different from your Mac or PC's screen and calibration. I often import full-screen images of the UI into iPhoto and sync them with an iPhone to see exactly how the final interface will look on the device (on Windows, you can sync photos using iTunes). This gives you another chance to make adjustments before slicing up images or committing anything to code.

[This article](#) explains how to handle the problem that while testing some landscape iPhone app interface mocks, they seem blurrier than they appear in Photoshop.

Conclusion

Now, you're able to move bitmap and vector images between Photoshop and Illustrator without any color shifts at all, and using any method. You're also able to grab a color using the color picker in Photoshop, and then use the same HEX color value in your CSS, HTML, JavaScript, Flash or Objective-C code, and it will match your images perfectly.



Interested in Photoshop? Check out the Smashing eBook #8: **"Mastering Photoshop for Web Designers, Volume 2"**

You can buy this eBook now from

[Apple iTunes Store](#) | [Amazon](#) | [Smashing Shop](#)

The Ails of Typographic Anti-Aliasing

By Tom Giannattasio, November 2nd, 2009

As printed typography enjoys the fruits of high-DPI glory, proudly displaying its beautiful curves and subtleties, its on-screen counterpart remains stifled by bulky pixels, living in a world of jagged edges, distorted letterforms and trimmed serifs. Until display manufacturers produce affordable 200 or 300 PPI monitors, we'll have to rely on software advances to fix these problems.



Enter **anti-aliasing**: the next best thing to a world of higher-resolution monitors. The concept of anti-aliasing is fairly simple: add semi-transparent

pixels along the edges of letterforms to smooth the appearance of the “stair-step” effect.

However, many factors and technologies determine the actual effectiveness of the process: hinting, subpixel rendering, software capabilities and operating system specifications, to name a few.

Here, we’ll look at what you as a designer can do to improve the results of anti-aliasing with Photoshop, Flash and CSS. Plus, we’ll explain the constraints of hardware, browsers and operating systems.

Technologies

Aliased vs. Anti-Aliased

It takes only a quick glance to realize that anti-aliasing is extremely important to making text legible. With few exceptions, anti-aliased text can dramatically reduce eye strain, not to mention that it renders glyphs much closer to their intended design.

Because of this, designers must decide how, not if, anti-aliasing should be used. This decision is based on a number of factors that one has to consider in the process from design to delivery.



42pt "Goudy Oldstyle Bold": aliased and anti-aliased versions

Font Hinting

Most text rendering engines rely heavily on hinting to determine exactly which areas of a glyph should be smoothed. Font hinting, or instructing, uses tables of mathematical instructions to align letterforms to the pixel grid and to determine which pixels should be gray scaled. Though most software provides auto-hinting using standardized algorithms, ideally the process would be done manually by the type designer and embedded in the file.

Put simply, these instructions work by modifying the position of structurally important points, such as those found along splines or at the base of stems, and aligning them at pixel boundaries. Intermediate points are then repositioned based on their relationship to the primary points. Using an open-source font editor, such as [FontForge](#), allows you to view and edit a font's hinting information. See how much work goes into producing a clear glyph; your appreciation of type designers and font engineers will certainly increase.

INCONSISTENT LETTERFORMS

Rendering

Y CROSSBAR

Rendering

STRAY PIXELS

	40	NPUSHB
0	40	
1	42	66
2	00	0
3	73	115
4	6c	108
5	6b	107
6	04	4
7	6f	111
8	65	101
9	79	121
10	4f	79
11	51	81
12	4a	74
13	22	34
14	29	41
15	25	37
16	1b	27
17	42	66

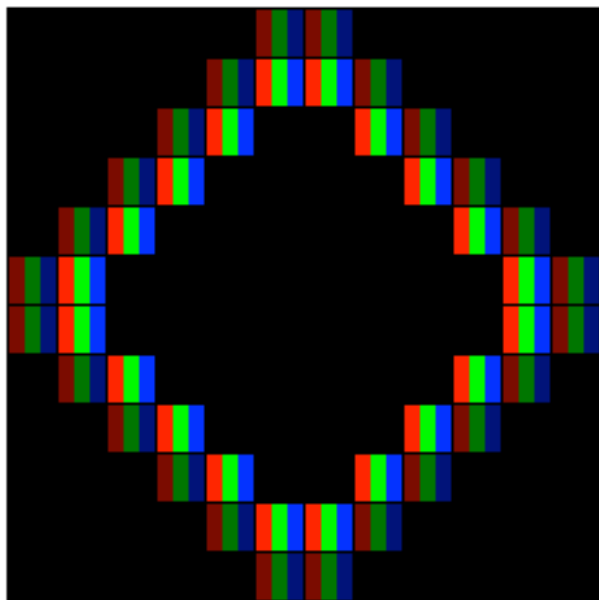
Smashing eBook | Best of Smashing Magazine | 102

Subpixel Rendering

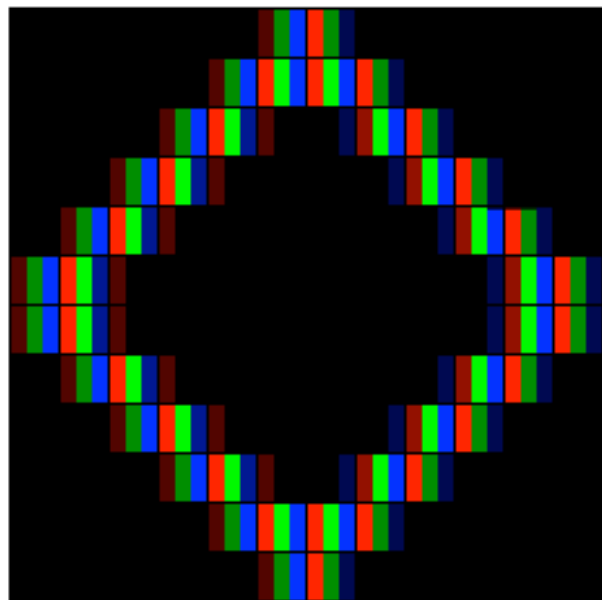
Every pixel on a standard monitor consists of three components: a red, a green and a blue. The brightness of each of these sub-pixels is controlled independently, and because of their small size, our eyes blend the three into one solid-colored pixel.

Typical anti-aliasing sets even values for each of these subpixels, resulting in full grayscale pixels. Subpixel rendering exploits the individuality of each single-colored component and uses it to increase the perceived resolution of the monitor.

This allows a pixel to take on visual weight from neighboring pixels, thereby allowing type to be smoothed in smaller increments. Rendering the type in this manner can produce subtle color shifts visible along the edges of glyphs.



FULL-PIXEL RENDERING



SUB-PIXEL RENDERING

Subpixel rendering relies on a perfectly aligned grid of pixels, which makes LCD flat panels the only type of monitor on which this technique works consistently. CRT monitors suffer from inaccuracies and oddly distributed pixels, making subpixel rendering extremely difficult to pull off.

Even LCD monitors have variations in their subpixel arrangement that must be accounted for; some monitors are arranged in the order of RGB, while others are ordered BGR.

Subpixel rendering triples the perceived resolution by setting each color component separately.

Standard Rendering

Render

Subpixel Rendering

Render

Subpixel rendering produces more desirable results than standard rendering, but adopts color fringes.

Input

As designers and developers, we have limited control over how type is ultimately seen by the end user, but by using the proper delivery method, we can ensure an optimized presentation. That said, we'll look here at the

three most common ways in which text is sent to the user: HTML, images and SIFR. Each of these methods has an ideal use that, when properly implemented, can dramatically increase legibility and thus the overall user experience.

HTML Text

HTML text undoubtedly accounts for the majority of text found on the web. Until recently, designers had absolutely no control over anti-aliasing with client-side technologies. CSS 3 introduces two new ways to control how HTML text is delivered: `font-smooth` and `@font-face`.

font-smooth

Font-smooth allows you to control when smoothing is used but not how it's used; the anti-aliasing method is still controlled by the user's environment. This setting is not widely supported yet but may prove useful by allowing us to turn anti-aliasing off at small point sizes — where type often becomes blurry. It may become doubly useful when more complex and non-browser-safe fonts are embedded with the new `@font-face` rule.

@font-face

The [@font-face rule](#) is an exciting new feature of CSS 3 that designers have been waiting years for. Although we've been able to add obscure typefaces to font stacks for quite some time, a large majority of users don't have high-end fonts on their local machines and end up with a typical Web-safe font (e.g. Times New Roman substituted for Adobe Garamond Pro).

By allowing the browser to import a font file from a URL, we can now serve the user any font we'd like without relying on their font library. This means that we can serve not only more unique fonts but also those that are better hinted and more legible.

Despite the promise this feature holds to create a more beautiful world of online typography, we may still see designers opt for fonts like Verdana, which have been designed and hinted specifically for on-screen viewing. Some of our favorite fonts from the print world just look bad when rendered on the screen, especially at smaller text sizes.

Surely we'll see new industry segments arise as a result of the support of @font-face, including an influx of browser-hinted typefaces made available through services such as [typekit](#).

SAFARI 4:

Bickham Script Pro

FIREFOX 3:

Bickham Script Pro

Bickham Script Pro embedded using @font-face and rendered in Safari 4 and Firefox 3. Notice the OpenType swashes and ligatures supported in Firefox 3!

Text as Image

Serving text as an image may have limited uses, but it allows you to fine-tune every letter if necessary. Photoshop provides five pre-set anti-alias settings, which determine pixel values using different algorithms in conjunction with the document's pixel grid. Unfortunately, none of these settings allow for subpixel rendering, but by using the Free Transform

option to nudge the layer's position, you can effectively force the algorithms into rendering cleaner.

Each setting allows a different amount of origins, and some only produce variations when translated along the x-axis. Below is a table of available transformations.

	X-TRANSLATIONS	Y-TRANSLATIONS
NONE	1	1
SHARP	2	1
CRISP	4	1
STRONG	32	16
SMOOTH	4	4
SHAPE LAYER	32	32

None

ORIGINAL OUTLINES

Anti-Aliasing

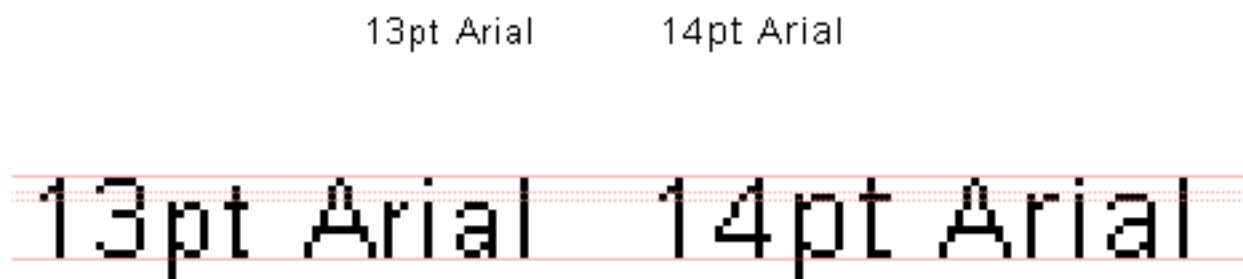
PHOTOSHOP'S NONE SETTING

Anti-Aliasing

Aliased text, created using the None setting, has a very limited use and typically looks best between point sizes of 9 and 18. Sizes lower than this range will result in unidentifiable characters, and larger sizes will lead to increased character weight and overly jagged edges. Depending on the

font, sometimes two different point sizes will render at the same height, causing a shift in letter spacing, width and x-height.

For example, 14pt Arial renders 10 pixels high with an x-height of 8 pixels. Arial at 13pts also sits 10 pixels high but has an x-height of only 7 pixels – a slight but very perceivable difference. When tightly tracked, this setting may also require manual kerning, because some letters will sit pixel to pixel against each other.



13pt and 14pt Arial render with the same cap height but different x-heights.

Sharp

ORIGINAL OUTLINES

Anti-Aliasing

PHOTOSHOP'S SHARP SETTING

Anti-Aliasing

The Sharp setting uses very tight grid-fitting and produces sharp, if not too sharp, type. The plotting of pixels with this setting is very similar to how the None setting plots them but allows for a certain degree of smoothing. In fact, if pixels are set atop one another, you can actually see that a majority of solid pixels carry over from None to Sharp.

While the cap height and x-height typically remain the same, you might see an increase in character weight and width.

Note that Sharp has a tendency to completely cut subtle shape variations from rendering and sometimes causes inconsistent letterforms, so if typeface integrity is important to you, you may want to try a different setting.

Crisp

ORIGINAL OUTLINES

Anti-Aliasing

PHOTOSHOP'S CRISP SETTING

Anti-Aliasing

The Crisp setting maintains much of the font's original weight and curvature but cleans up some of the awkward pixels created by light serifs and thin strokes — which is especially useful for larger point sizes.

With the Crisp setting, however, you sacrifice the ability to nudge the layer on the y-axis.

Strong

ORIGINAL OUTLINES

Anti-Aliasing

PHOTOSHOP'S STRONG SETTING

Anti-Aliasing

The *Strong* setting is notorious for adding unnecessary weight to a typeface, but it provides the most freedom with translating the origin, with 32 x-axis variations and 16 on the y-axis.

The variety of origins with this setting can come in very handy when working with complex letterforms. *Strong* may also be useful when working with a typeface that has very thin strokes.

lorem ipsum dolor

lorem ipsum dolor

[Subtle animation](#) showing the 32 anti-aliasing origins at 36pt, [18pt](#) and [12pt](#).

Smooth

ORIGINAL OUTLINES

Anti-Aliasing

PHOTOSHOP'S SMOOTH SETTING

Anti-Aliasing

The Smooth setting is the closest to unhinted anti-aliasing and therefore **remains truest to the original glyph shape**. This algorithm is best used on medium-sized to large type, because it tends to render very light and often blurry at smaller point sizes. If used with an appropriate typeface at a proper size and if the origin is properly adjusted, this setting can produce a beautiful balance between crispness and letterform fidelity.

Shape Layer

If Photoshop's hinted algorithms all produce undesirable results, you may want to attempt using unhinted anti-aliasing by way of converting the type to a shape layer. This allows you access to the original outlines of the font, which draw values based on the percentage of the pixel enclosed in the shape. What you sacrifice in editable type, you make up for in origin transformations: 32 on both the x- and y-axes. Though usually a last resort,

don't rule out the possibility of using a Shape Layer; it can often produce much better results than Photoshop's algorithms.

Fractional Widths

Another, more veiled, setting that sometimes helps with anti-aliasing type at small point sizes is the Fractional Widths option located in the Character palette's fly-out menu. With this setting turned on, the character spacing is set to varying fractions of pixels. This is ideal for auto-kerned type at large sizes but tends to bump the type either too close together or too far apart at smaller sizes. Turning this option off will round all character spacing to whole pixel values, which may help better space the problematic type. This is a hit-or-miss option, so use it wisely.

Decimal Point Sizes

Typophiles might cringe at the idea of using a decimal point size, but when designing for digital media, standard point sizes don't always conform to the pixel grid. By using decimal point sizes and either the Smooth or Strong anti-alias setting, you can usually bring a blurry typeface back into focus. Please note that I am not condoning the use of vertical or horizontal scale!

Anti-Aliasing Anti-Alias

Anti-Aliasing Anti-Alias

Using decimal values can dramatically improve anti-aliasing results, as seen above. Top: 16pt Goudy Oldstyle with Strong Anti-Aliasing. Bottom: 16.5pt Goudy Oldstyle with Strong Anti-Aliasing.

sIFR Text

Using sIFR to replace headers with a block of Flash brings benefits beyond the obvious. Yes, it solves the problem of having to use CSS image replacement techniques to provide a wider array of fonts, but it also allows incredible control over how the type is anti-aliased. Particularly useful are the sharpness and thickness settings, which control the edges of glyphs. (If only Photoshop had these settings!)

You can set and tweak a number of settings to fit your implementation; and they can be controlled by passing keyword arguments inside the sifr-config.js file. These settings include:

sharpness (number)

A value between -400 and 400, which determines how sharp (positive number) or soft (negative number) the edges of the glyphs will be.

thickness (number)

A value between -200 and 200, which sets the thickness of the glyph edges.

gridFitType (string)

Possible values are: "none," "pixel" and "subpixel." This specifies how prominently the horizontal and vertical lines are fit to the monitor's pixel grid. "Pixel" and "subpixel" usually produce the best results.

antiAliasType (string)

This is set by default to "advanced," which allows the anti-alias settings above to be applied. It can also be set to "normal," but this option limits sIFR's rendering capabilities to accommodate earlier versions of Flash Player and overrides any of the properties above.

sIFR: Default Anti-Aliasing

sIFR: Custom Anti-Aliasing

sIFR allows you to precisely customize your anti-alias settings. Notice that the custom setting is slightly thinner and crisper.

Output

Displays

Because very few people have monitors with resolutions higher than 100 pixels per inch (PPI), we have to rely on software to trick our eyes into thinking that the resolution is greater than it really is. Some advances are

being made by display manufacturers, but they are still beyond the average Web surfer's budget.

A typical LCD monitor (which you're probably reading this on) has a [dot pitch](#) of around .20 or .30 millimeters. New technologies, such as the [Ferro Liquid Crystal display](#) are touted to reduce that number to .012 millimeters. Bringing this technology to the mainstream would bring tremendous advantages to the world of design and on-screen reading. However, until they become affordable for the average consumer, we'll be relying on software advances.

Operating System

Microsoft and Apple have both delivered technological advances in the world of anti-aliasing, but they have somewhat different approaches. The current versions of both operating systems use anti-aliasing and subpixel rendering. Both vendors have dramatically increased legibility within their operating systems, but controversy has arisen over the aesthetics and legibility of each.

Microsoft's entry in the competition — which is characterized by tight grid-fitting — is aptly named ClearType. By forcing characters tightly into the pixel grid, ClearType increases contrast along the edges of glyphs and renders more crisply.

Distinctly different is Apple's Quartz 2D, which puts emphasis on maintaining the shape and integrity of the typeface. This certainly makes sense, given the high proportion of designers who work on Macs. But Quartz rendered type often appears blurry, which can cause eye strain with extended reading.

Quartz Rendering

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis facilisis varius elementum. Proin cursus posuere mollis. Vivamus id justo nec massa convallis dapibus. Praesent a arcu augue, pretium commodo elit. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

ClearType Rendering

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis facilisis varius elementum. Proin cursus posuere mollis. Vivamus id justo nec massa convallis dapibus. Praesent a arcu augue, pretium commodo elit. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Windows Vista and Window XP both use Microsoft's ClearType rendered either by [Windows Presentation Foundation](#) or [Graphics Device Interface](#); both handle text in a very similar fashion, though WPF doesn't snap horizontally to the pixel grid. Windows XP actually comes defaulted to monochromatic anti-aliasing.

But ClearType can be turned on by going to *Control Panel* → *Appearance and Themes* → *Display*, clicking on the "Appearance" tab, selecting "Effects..." and changing the drop-down from "Standard" to "ClearType." The operating system itself allows for very little customization of ClearType; you basically choose between on and off. [Microsoft's ClearType Tuner PowerToy](#), though, allows some control over how it renders. Windows 7 brings a new rendering platform, named DirectWrite, that introduces subpixel positioning and y-direction anti-aliasing. As seen in [this presentation](#), the advances made with DirectWrite are quite impressive and sure to be adopted by other vendors.

Apple's Quartz 2D now renders type using [Core Text](#), which has recently replaced [Apple Type Services](#). The Quartz 2D displays type much closer to the typeface's original design, which is similar to how you might expect to see it in print form.

While this seems like a good idea from a design perspective, it doesn't hold up with legibility, at least not on common LCD screens. Quartz text could conceivably appear much better if we were using higher-resolution monitors. Because Apple has complete control over both the operating system and the hardware that it runs on, perhaps a 200 PPI iMac is just around the corner. We can hope!

Browsers

The most current browsers today all inherit the anti-alias settings of the operating system. But with one anomaly. Firefox 3 in Mac OS X seems to inherit the operating system's settings but also seems to apply more precise grid-fitting and kerning. Perhaps Mozilla is attempting to improve on Quartz's blurry rendering.

Unfortunately, we have no way to control or even tell how the user's browser will render text. What we can do is understand the nuances of each browser and make sure that we deliver a suitable presentation across all viewing platforms.

Below is a list of browser capabilities and type samples to help you gain some insight into how they handle anti-aliasing.

Windows XP and Vista

- **IE6, IE7 and IE8**

STANDARD

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

CLEAR TYPE

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

- **Firefox 2 and 3:**

STANDARD

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

CLEAR TYPE

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

- **Safari 4:**

STANDARD

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

CLEAR TYPE

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

- **Chrome:**

STANDARD

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

CLEAR TYPE

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

Mac:

- **Firefox 2 in OS X:**

STANDARD

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

AUTOMATIC

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

- **Firefox 3 in OS X** (inherits from operating system but with slightly enhanced kerning — most noticeable in the word “Georgia”):

STANDARD

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

AUTOMATIC

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

- **Safari 4 in OS X:**

STANDARD

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

AUTOMATIC

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

- **Opera:**

STANDARD

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

AUTOMATIC

13px Verdana: How quickly daft jumping zebras vex.

13px Georgia: How quickly daft jumping zebras vex.

Conclusion

Though many advances have been made in rendering on-screen typography, most have been aimed at treating the symptoms and not the disease. Until everyone has a 200 PPI monitor sitting on their desk, it will be up to designers and developers to use the proper technologies to ensure legibility without degrading the design of the typeface.

Mastering Photoshop: Noise, Textures and Gradients

By Marc Edwards, January 20th, 2010

Often, it's the little details that turn a good layout into a great design; details such as subtle textures, shading and smooth shapes. Photoshop contains a vast array of tools for embellishing a design, but choosing the right one isn't always easy. Being the obsessive-compulsives that we are, we've conducted a huge range of experiments to determine the benefits and disadvantages of each technique. Here, then, is an obsessive-compulsive's guide to some frequently used tools and techniques for Web and UI design in Photoshop.

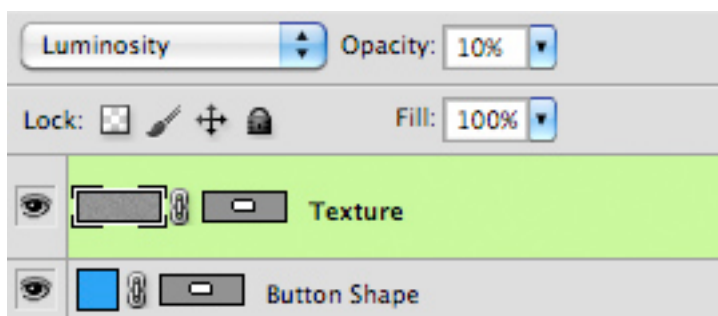
Noise and Textures

Subtle noise or texture on UI elements can look great, but what's the best way to add it? Our goal is to find the best method that maintains quality when scaled but that is also easy to implement and edit. To find out which is best, we'll judge each method using the following criteria:

- Number of layers used: fewer is better.
- Ability to scale: if the document is resized, will the effect maintain its quality?
- Can the noise be on top of the Color and Gradient layer styles?
- Can the method be used with any texture, not just noise?



1. Bitmap Layer With Noise

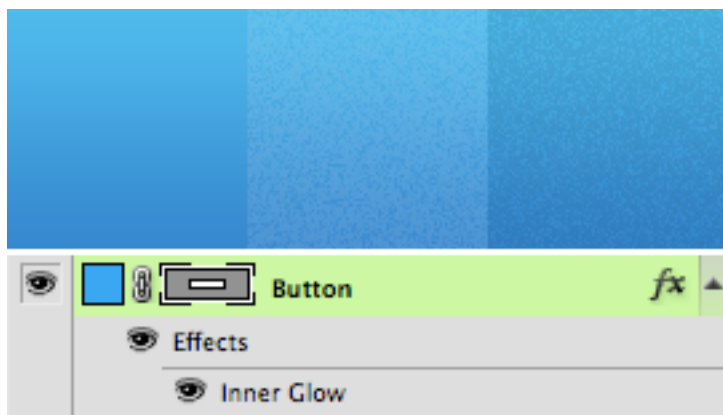


Probably the most obvious method for adding texture to a shape is to create a normal bitmap layer, fill it with a color, select **Filter** → **Noise** → **Add Noise**, then apply a mask or Vector Mask to match the element you're adding noise to.

Using a high amount of noise, setting the layer blending mode to Luminosity and reducing the opacity will yield the most control over the noise with the least disturbance to the underlying layers. A noise setting of 48% gives a high dynamic range without clipping the noise. (Clipping results in higher contrast, which might not be desirable.)

-
- Layers: 2
 - Scales: No, texture will have to be recreated if the document is scaled
 - Works with Color and Gradient layer styles: Yes
 - Works with any texture: Yes

2. Inner Glow Layer Style



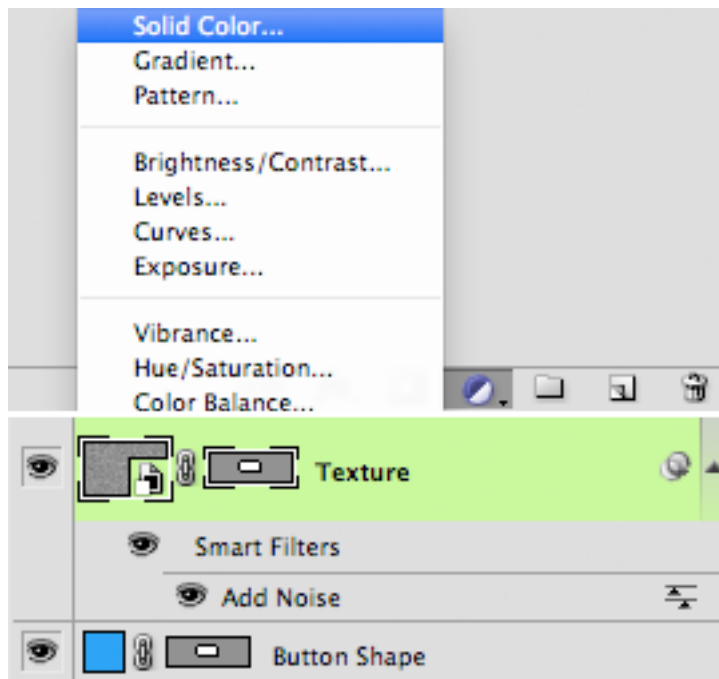
Adding an Inner Glow layer style with the source set to center and the size to 0 will let you use the noise slider to add texture to any layer. It's a good solution, provided you're not already using the Glow layer style for something else. The noise is added above the Color, Gradient and Pattern layer styles, which is great.

Unfortunately, the noise can only lighten or darken the underlying elements. The previous bitmap layer method can add highlights and shade at once while maintaining the average luminosity, and it looks far better in my opinion.

- Layers: 1
- Scales: Yes, texture will be remade automatically
- Works with Color and Gradient layer styles: Yes

- Works with any texture: *No*

3. Smart Object with Filter

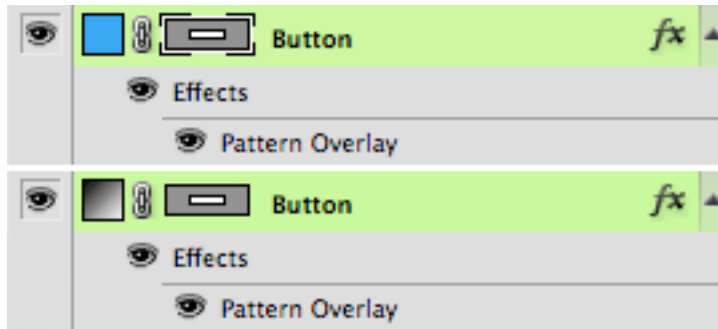


Create a Solid Color layer, convert it to a Smart Object, select **Filter** → **Noise** → **Add Noise**, apply a Vector Mask to match your element, set the layer blending mode to *Luminosity* and reduce the layer's opacity.

It's a fairly involved process, but it can accommodate a combination of effects that can be remade if the document gets scaled.

- Layers: 2
- Scales: Yes, texture will be remade automatically
- Works with Color and Gradient layer styles: *Yes*
- Works with any texture: *No*

4. Pattern Overlay Layer Style



Start by creating a noise or repeating pattern in a new document, then choose **Edit → Define Pattern**. Once you've defined the pattern, it will be available in the Pattern Overlay layer style options. As with previous methods, using *Luminosity* as a blending mode and reducing the opacity to suit it yield great results.

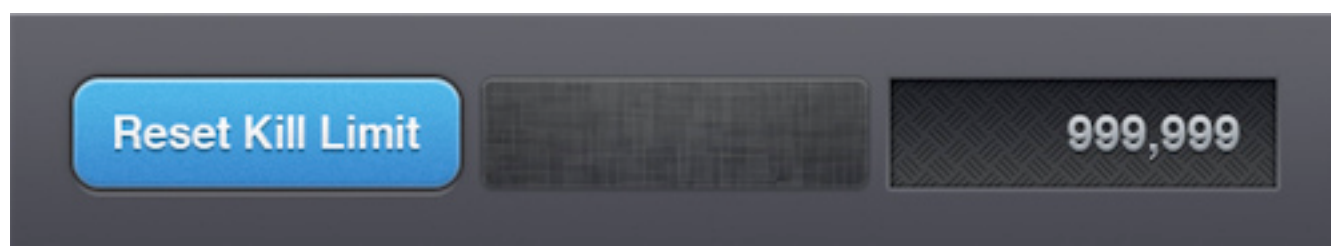
The Pattern layer style is composited below the Color and Gradient styles, ruining an otherwise perfect noise and texture method. However, you can create a second layer that just holds the texture if you need to, or start with a Gradient Fill layer, sidestepping the limitation.

- Layers: *1*
- Scales: Yes, but you'll need to change the Layer style scale to 100% after scaling
- Works with Color and Gradient layer styles: *No, the pattern appears underneath*
- Works with any texture: *Yes*

Which Method Is Best?

Although a little cumbersome, creating a Gradient Fill layer, adding a Pattern layer style, then creating a Vector Mask seems to be the best method possible. This can be used to create flexible, scalable and editable single-layer UI elements with texture. As a bonus, Gradient Fill layers can be dithered and so also produce the highest quality results (Gradient layer styles cannot be dithered).

We've created some examples below and included the source document so that you can see how they were built.



[Download the PSD \(.zip\)](#)

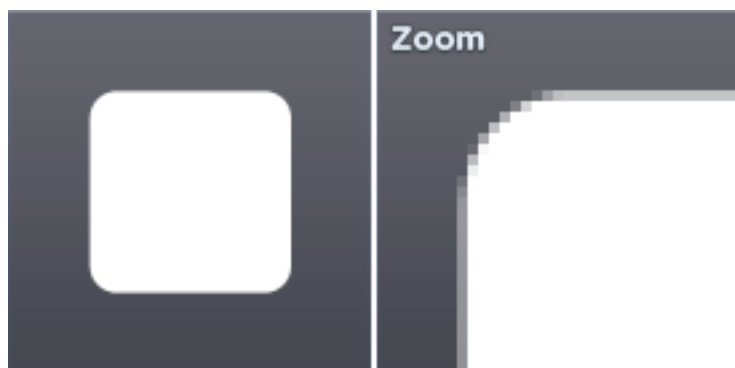
Rounded Rectangles

Rounded rectangles, or “roundrects” as [QuickDraw](#) so fondly calls them, are standard fare on a Web and interface designer’s utility belt. They’re so common that it’s rare for Web pages or apps to *not* contain a roundrect or two. Unfortunately, pixel-locked rounded rectangles can actually be fairly difficult to draw in Photoshop. (By pixel-locked, I mean that every edge falls on an exact pixel boundary, creating the sharpest object possible.)

Experienced Photoshop users will probably already know one or two ways to draw a roundrect. Hopefully, after reading this article, they’ll also know a couple more, as well as which methods produce pixel-perfect results.

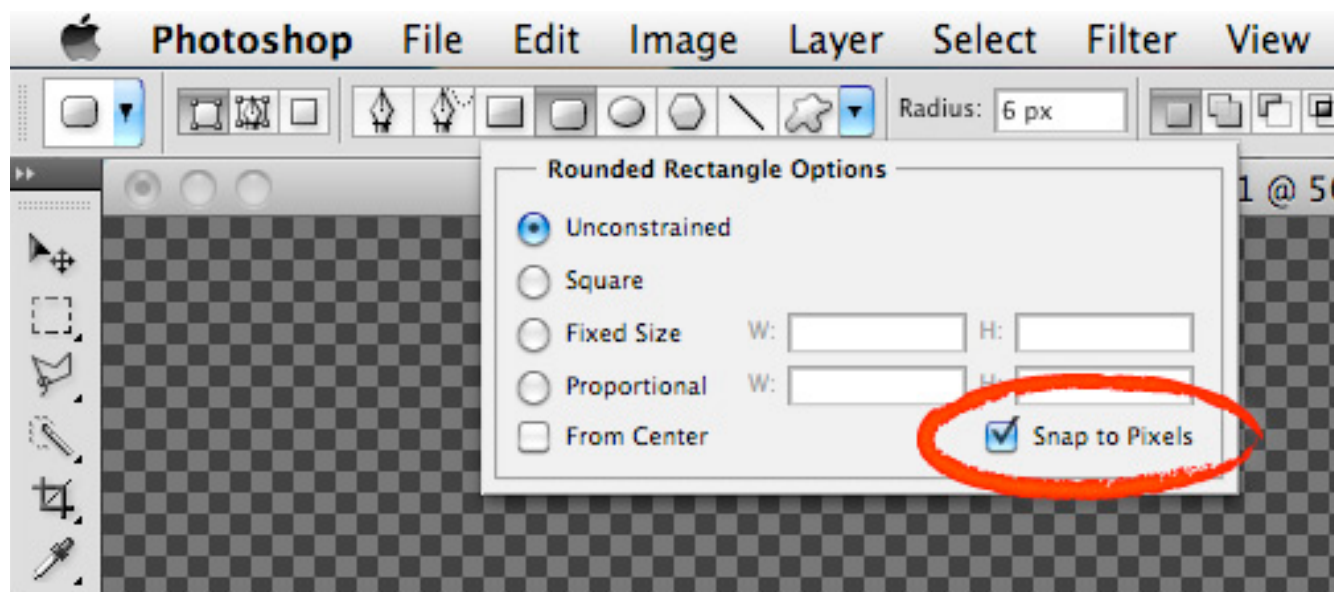
1. Rounded Rectangle Vector Tool

Photoshop's Rounded Rectangle vector tool appears like the ideal candidate for the task, until you realize that the edges it creates are blurry and inconsistent.



Fortunately, there is a fairly well-hidden option that locks the Rounded Rectangle vector tool's output to the pixel grid. Excellent.

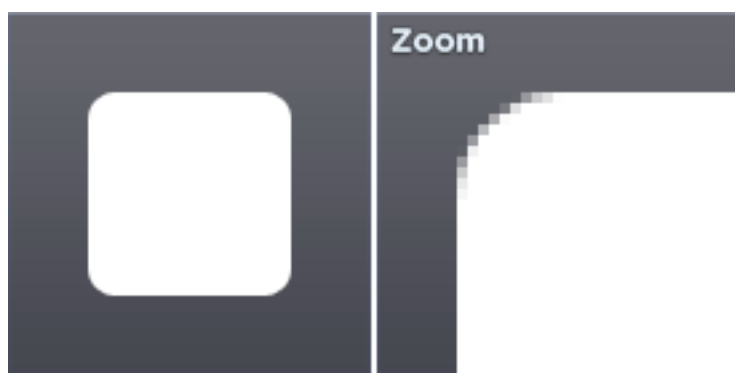
To enable pixel-locked drawing for the Rounded Rectangle vector tool, check the "Snap to Pixels" option in the Options bar. If you have "Snap to Pixels" turned off, drawing at 100% zoom achieves the same result.



The result is perfect roundrects, every time. The only downside is that the corner radius can't be altered during or after drawing the shape. If you need a different radius, you're forced to draw it again. It's a shame the roundrect tool isn't like Illustrator in this regard, where the up and down arrow keys increase and decrease the corner radius while drawing.

On the positive side, keeping your objects as vectors means that you'll be able to resize the document and the corners will take full advantage of any extra resolution. There is one small caveat though: if you resize, you'll have to do it as an exact multiple, or risk fuzzy non-pixel-locked edges.

If you're being pedantic about the results, you may notice that the antialiasing on the first half of each corner doesn't match the second half — you'll have to look carefully to notice, though. For example, looking at the zoomed corner below, the start of the corner to the apex isn't identical to the apex to the end of the corner (starting from either side). In practice, that probably won't create any issues.



2. Blur

The blur method is a bit of a hack that involves creating a selection, blurring it, then increasing the contrast so that you're left with a sharp mask that's antialiased nicely.

It's seven steps in total and is prone to being inaccurate; plus, the radius of the corners can't be changed on the fly. Applying levels can also be a bit fiddly. One advantage is that different levels settings can be used to obtain different degrees of antialiasing, from incredibly soft to completely aliased.

1. Create a new layer
2. Draw a rectangular selection
3. Enter quick mask (Q)
4. Gaussian blur by half the radius that you'd like for the rounded corners. (For example, a 10-pixel radius would need a 5-pixel blur.)
5. Apply Levels (Command + L), and use about 118 for the black point and 137 for the white point on the input levels
6. Exit quick mask (Q)
7. Fill selection



On the positive side, this blur method can be used to quickly create some interesting and organic shapes that would be difficult to draw by hand.

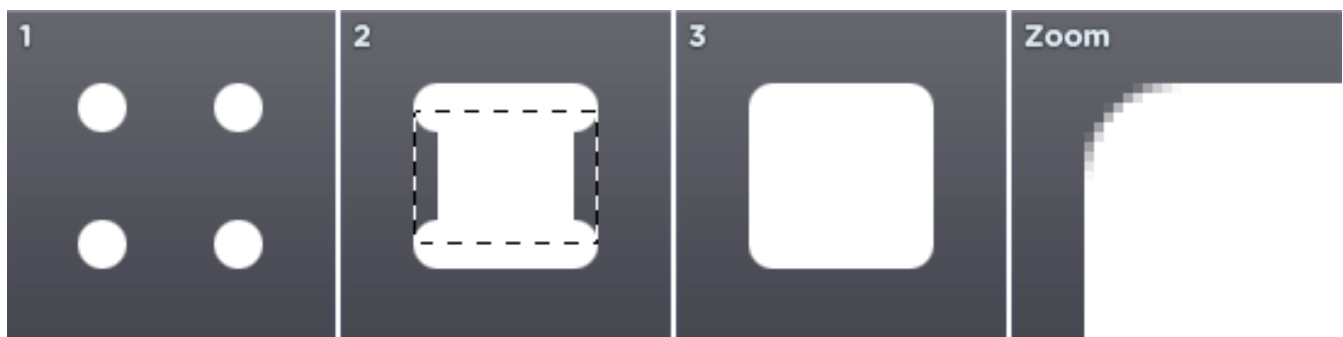


3. Circles

The circles method is very accurate and easily reproducible, but has a whopping 13 steps. That's a lot of clicking for just a single roundrect.

1. Create a new layer
2. Make a circular selection that is twice as large as the radius you would like (for example, a 10-pixel radius would require a 20×20-pixel circle)
3. Fill the selection
4. Move the selection right. This can be done quickly by holding down Shift and pressing the right-arrow key a few times
5. Fill the selection
6. Move the selection down
7. Fill the selection
8. Move the selection left
9. Fill the selection

-
10. Make a rectangular selection that covers the entire vertical span of the roundrect but that starts and ends halfway through the circles at the ends
 11. Fill the selection
 12. Make a rectangular selection that covers the entire horizontal span of the roundrect but that starts and ends halfway through the circles at the ends
 13. Fill the selection



4. Stroke

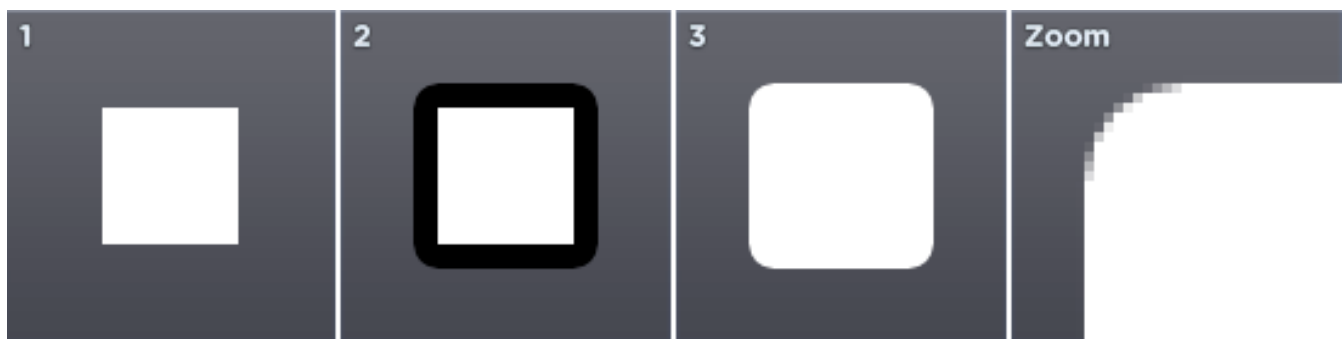
The stroke method is very accurate, easily reproducible and has only about four steps, depending on the result you're after. The corners are a bit sharper than those of the circle method, though. That may be a good thing or a bad thing, depending on your preference.

1. Create a new layer
2. Draw a rectangular selection that is smaller than the area you require (smaller by double the radius, if you want to be exact)
3. Fill the selection

-
4. Add a stroke as a layer style that is as thick as the corner radius you would like

If you'd like to flatten the object to remove the stroke, keep following the steps below.

1. Create a new layer
2. In the Layers palette, select the new layer and the previous layer
3. Merge layers (Command + E)



It's possible to automate the flattening with a Photoshop Action. This can also be set up as a function key to speed things up further.

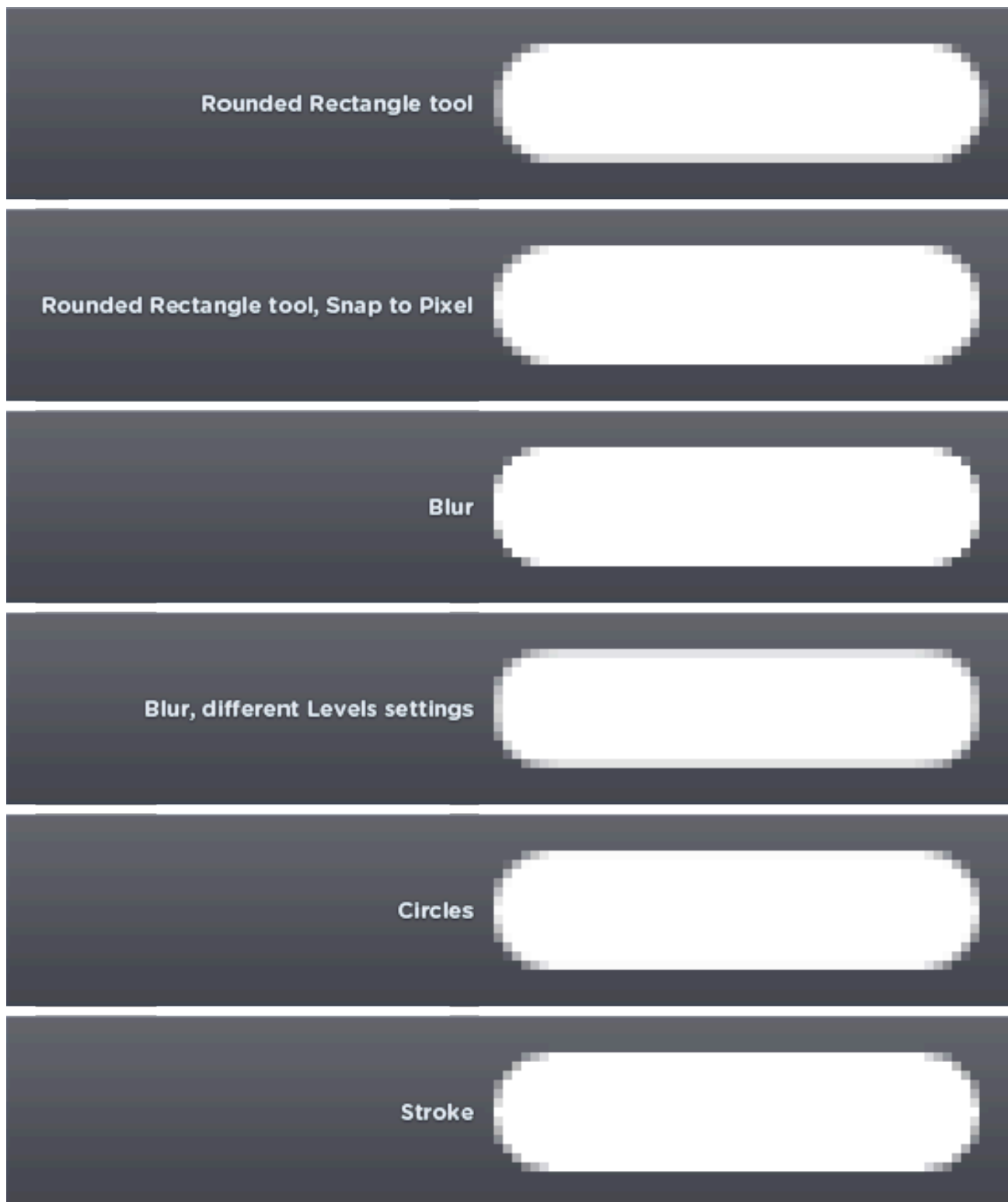
A huge advantage of the stroke method is that it's dynamic, so the radius can be edited in real time. It can also be used to easily create other rounded shapes, as seen below.



Which Method Is Best?

In most cases, using the Rounded Rectangle tool with “Snap to Pixel” turned on will give great results and be the quickest method. If you’d like the ability to change the corner radius without redrawing, then the stroke method is the one to use.

However, as seen below, each method yields different results. So, depending on what you’re after, you may need to use a combination of methods.



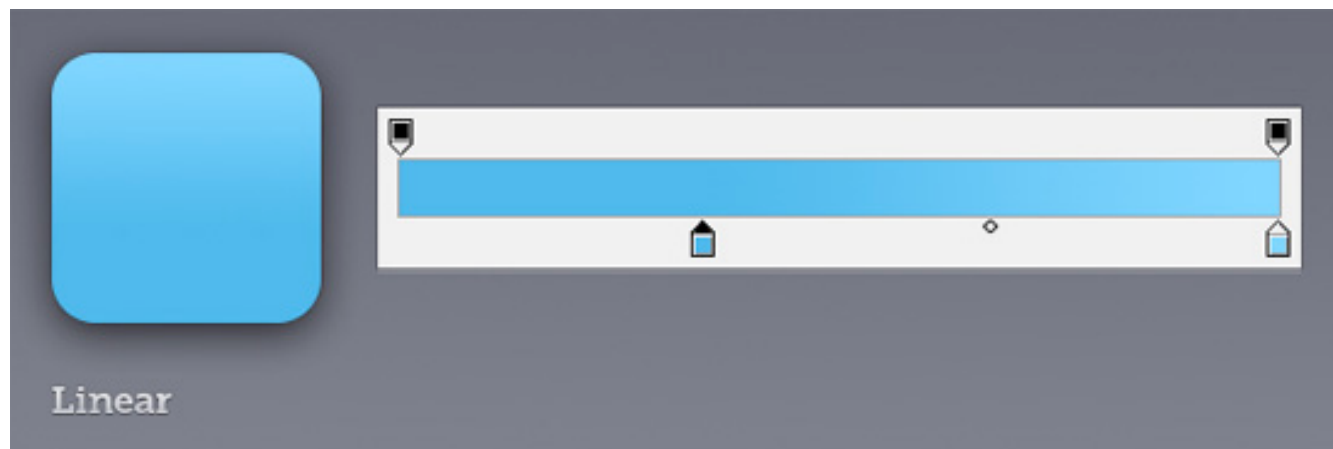
All tests were completed using Photoshop CS4 and CS5 on a Mac. Behavior for both versions was consistent.

Gradients

Gradients are a great way to add life-like lighting and shading to surfaces. When built with gradient layers and layer styles, they also ensure that UI elements can be scaled and reused easily.

Linear Gradients

Linear gradients are gradients in their most basic form — a gradual blend of colors and following a straight line. I'm sure you knew that, so onto the more interesting stuff.



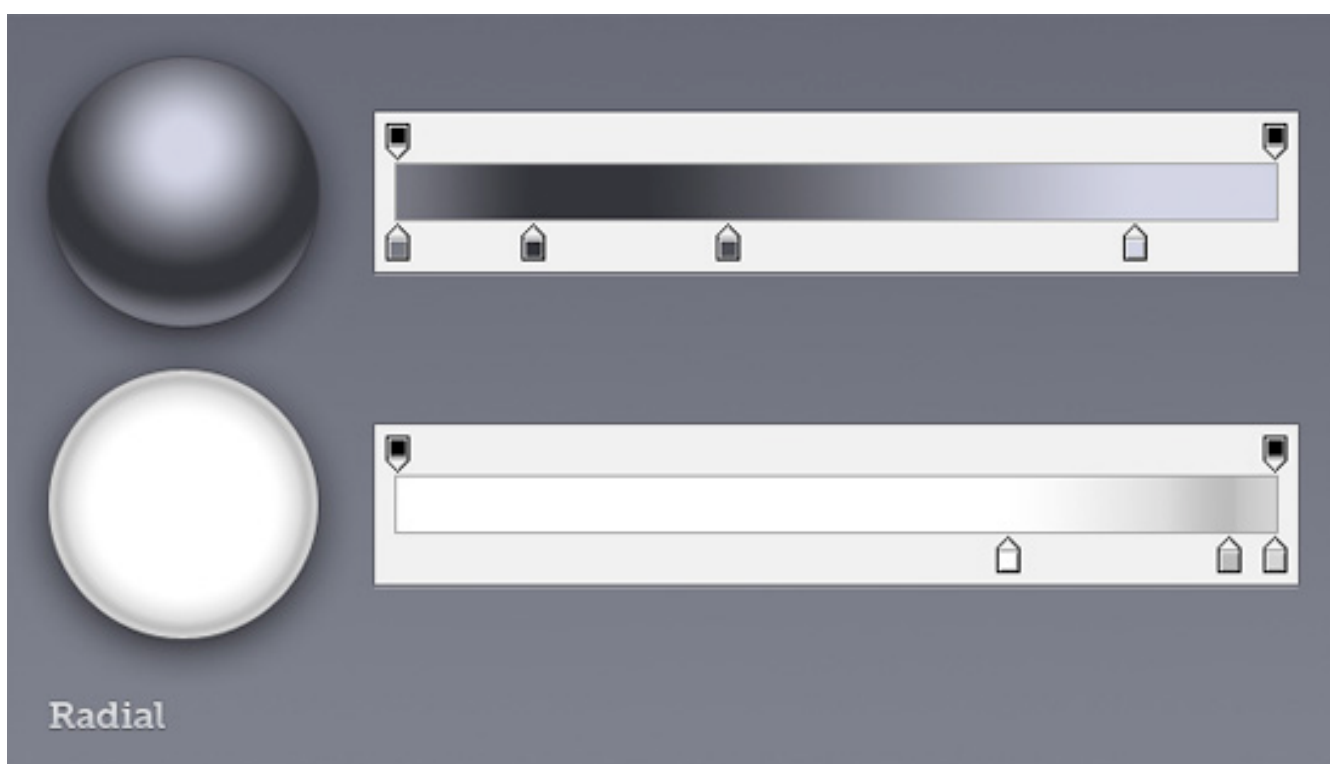
Reflected Gradients

Reflected gradients are like their linear friends, but they repeat the gradient twice, with the second repeat mirrored. This makes editing a little less tedious, provided it fits the result you're after.



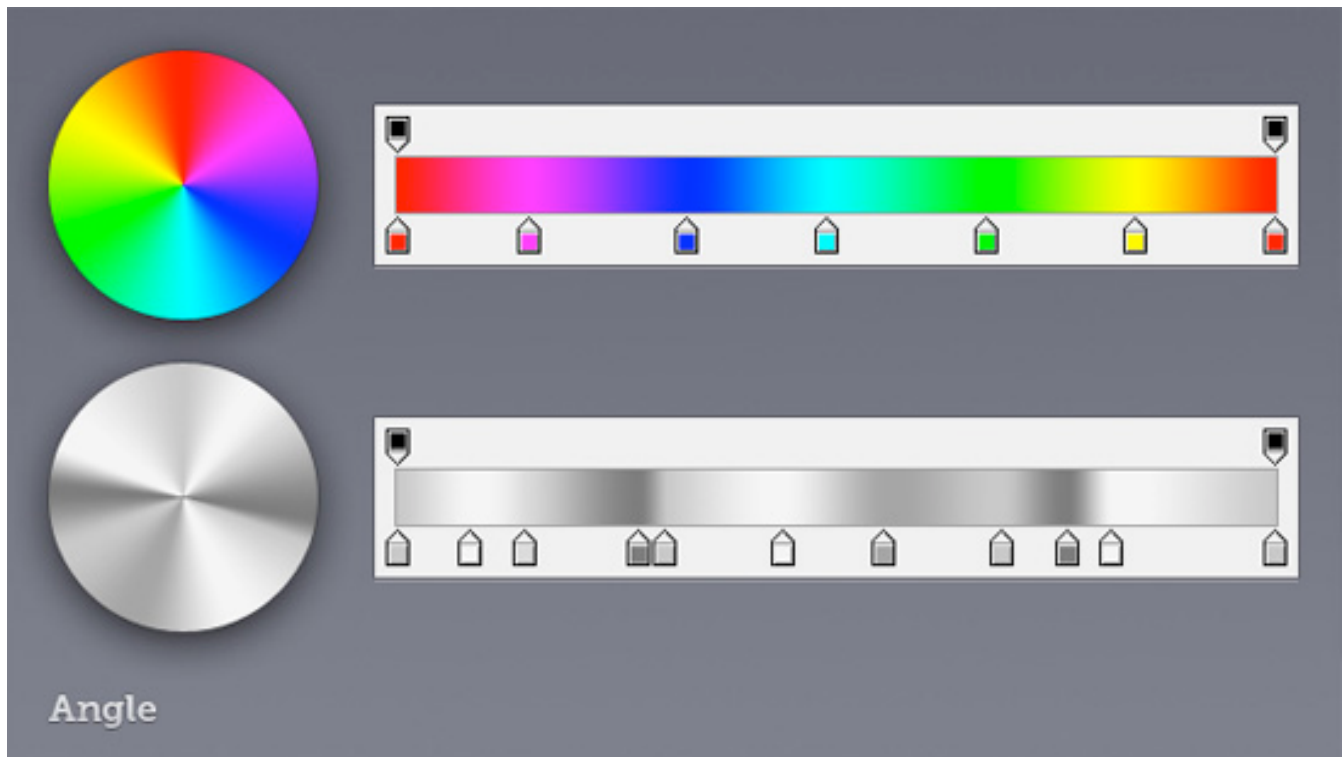
Radial Gradients

Radial gradients start from the center (or any chosen point) and grow outward in a circular pattern. They're handy for creating spheres and applying effects to the edge of circular elements. The center point of the gradient can be moved by clicking and dragging on the canvas while the gradient window or layer styles window is open.



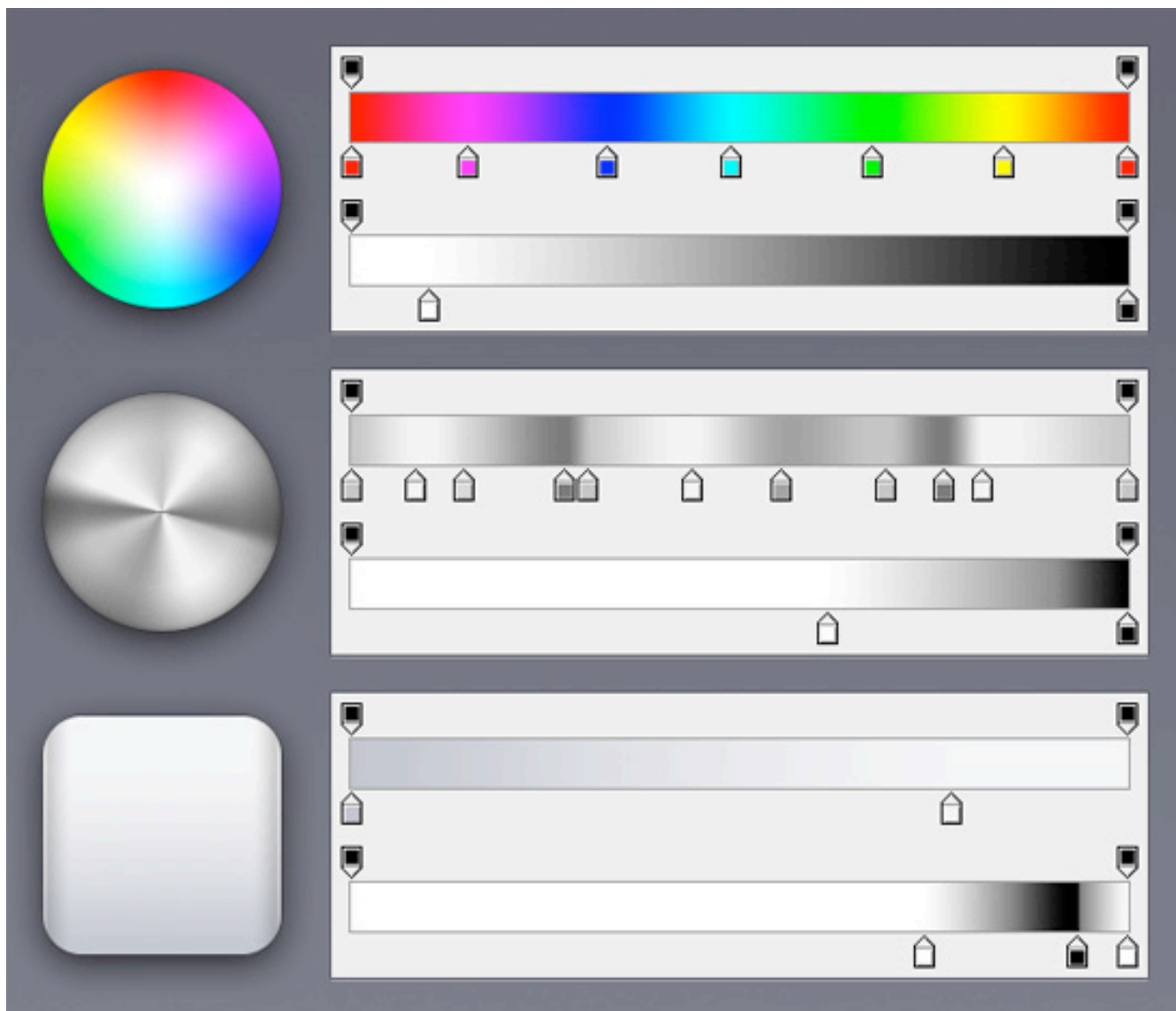
Angle Gradients

Angle gradients can be a great way to mimic environmental reflections found on highly polished metallic objects. The center point of the gradient can be moved by clicking and dragging on the canvas while the gradient window or layer styles window is open.



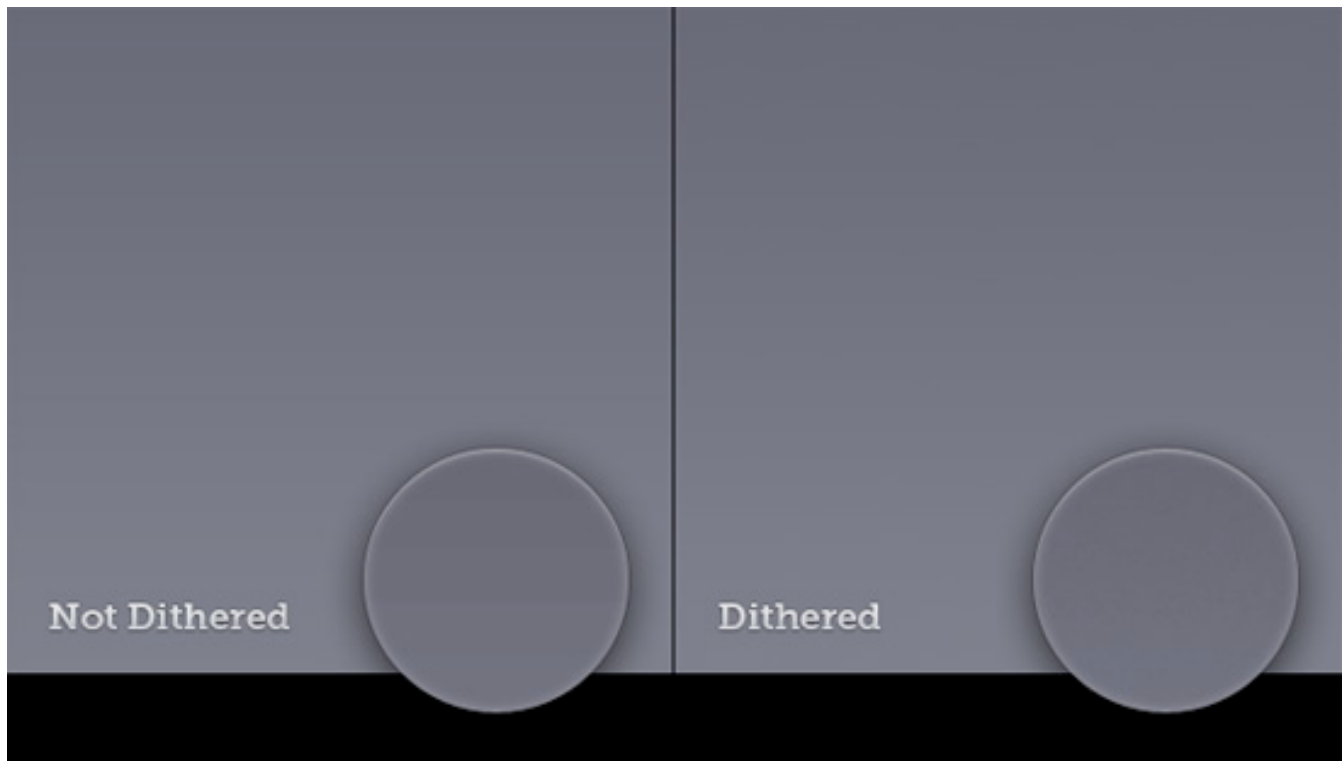
Gradients on Gradients

Anything worth doing is worth overdoing, right? Combining a gradient layer with a gradient layer style lets you overlay two different gradients, giving more complex and — here's the good part — completely dynamic results. To combine the gradients, you'll need to set a blending mode for the gradient layer style. For the examples below, I've used either Screen (good for lightening) or Multiply (good for darkening).

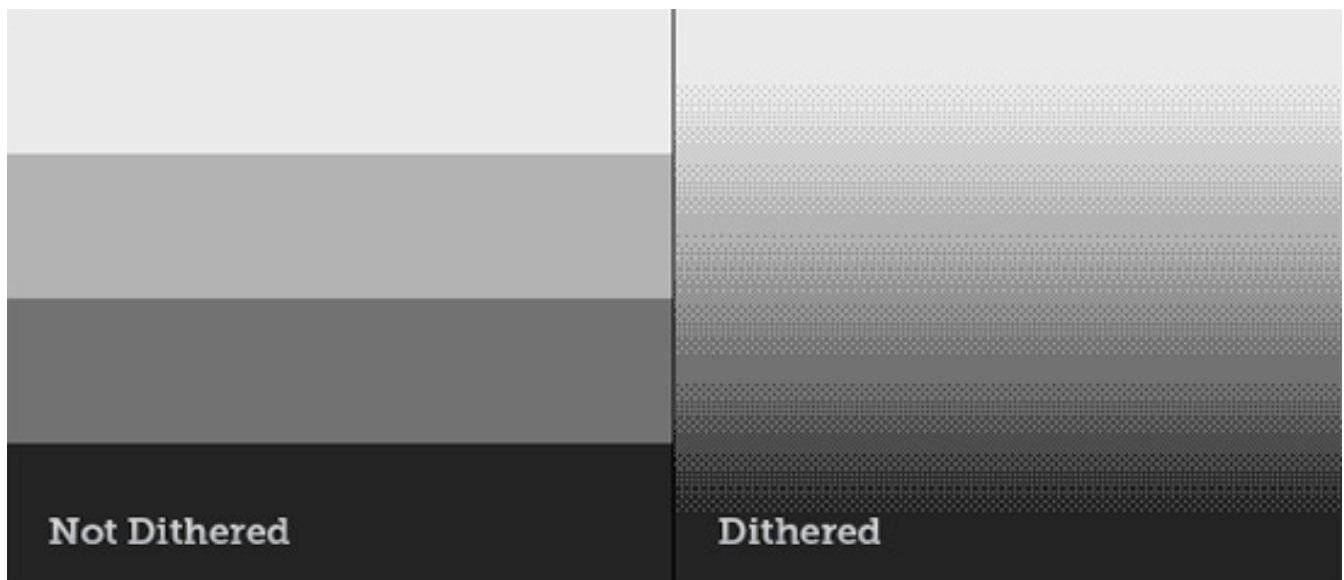


Dithering Is Everything

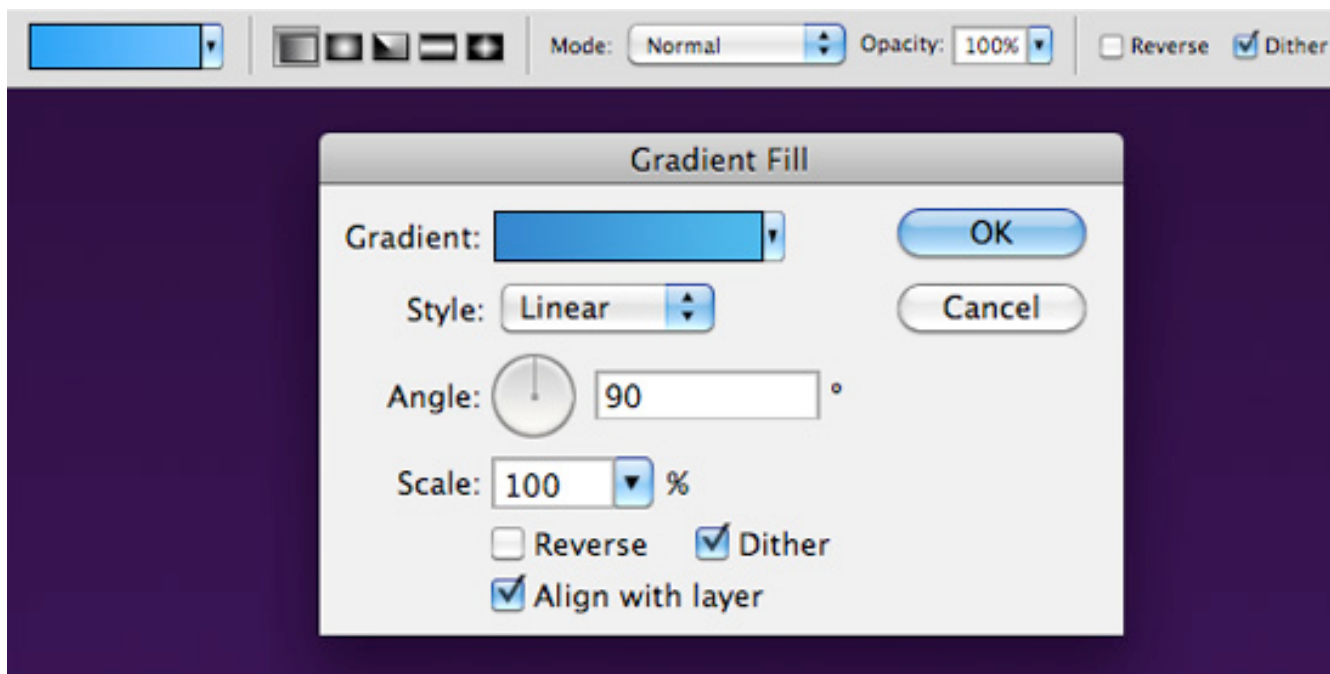
Adding dithering to a gradient produces smoother results. Non-dithered gradients often contain visible banding. Dithering is even more important if your artwork is being viewed on cheaper 6-bit per channel [TN LCDs](#) and [certain display types](#) that tend to amplify [posterization](#) problems.



If you're not seeing the difference, here's an extreme and completely unrealistic example of gradient dithering in action:

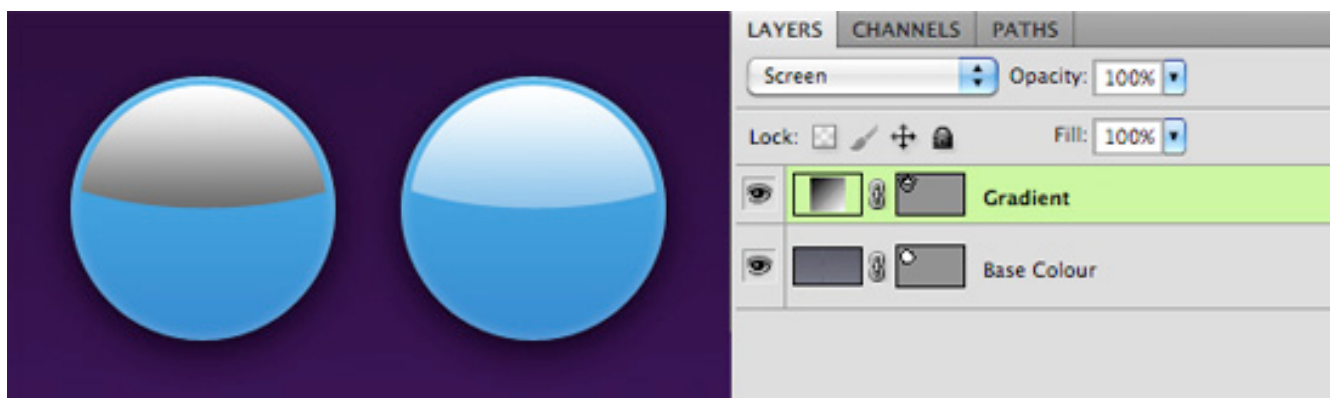


Ensuring that your gradients are dithered is easy: just check the appropriate box in Photoshop.



Note that gradient layer styles can't be dithered, and gradients in placed objects (such as stuff you've pasted from Illustrator) aren't dithered.

If you use transparency in a gradient, that won't be dithered either, which can be a huge issue at times. There is a solution for some specific cases: if you're using a gradient with transparency to lighten an area with white, then using a non-transparent gradient with a Screen Layer blending mode will let you dither it. The same technique can be used for darkening with the Multiply blending mode.



A combination of the gradient techniques described above were used to create the Mac app icon below.



Gradient Maps

Quite different to other types of gradients, gradient maps can be a great way to add color treatment, allowing for very precise control. Gradient maps use the brightness of each pixel to map to a corresponding color in a gradient.

If the gradient starts at red and ends at blue, then everything white in the image will turn red, and everything black will turn blue. Everything in the middle tonally will map to the gradient, depending on how bright it is.

The image below was used in a poster for Kingswim, a swimming school:



With a gradient map.

Without the gradient map, things look quite different. It's a composite of about seven photos; the boy and background were shot on black and white

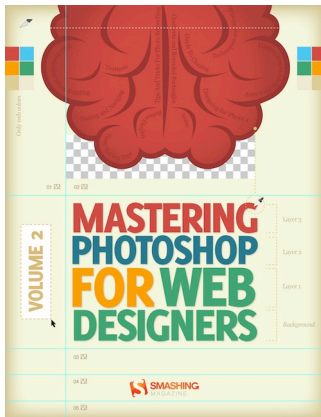
film with intentionally low contrast so that the grain would be more prominent when the contrast was pushed by the gradient map. The gradient map also hides the color mismatches in the compositing.



Gradient map off.

A Little Obsessed?

Absolutely. I conducted all of the tests above to learn more about some common techniques that I already use: that is, to reassess and fine tune, with the aim of improving my designs. Creating great artwork without intimately knowing your tools is certainly possible, but the more you know, the more likely you are to work faster and with greater confidence.



Interested in Photoshop? Check out the Smashing eBook #8: **"Mastering Photoshop for Web Designers, Volume 2"**

You can buy this eBook now from

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Better User Experience With Storytelling, Part 1

By Francisco Inchauste, January 29th, 2010

Stories have defined our world. They have been with us since the dawn of communication, from cave walls to the tall tales recounted around fires. They have continued to evolve with their purpose remaining the same: to entertain, to share common experiences, to teach, and to pass on traditions.

Today we communicate a bit differently. Our information is fragmented across various mass-media channels and delivered through ever-changing technology. It has become watered down, cloned, and is churned out quickly in 140-character blurbs. We've lost that personal touch where we find an emotional connection that makes us care.

Using storytelling, however, we can pull these fragments together into a common thread. We can connect as real people, not just through computers. In this article we'll explore how user experience professionals and designers are using storytelling to create compelling experiences that build human connections.

It Begins with a Story

In 1977, a simple story set the film industry on its side. The special effects technology used to create this story had not been created or used in filmmaking at the time of its writing. The author disregarded what was popular and marketable at the time (apocalyptic and disaster movies) to

create his own vision. The film starred unknown actors and the genre had mainly been seen in 1930s serial movies. It was turned down by many film studios and at one point was almost shelved.



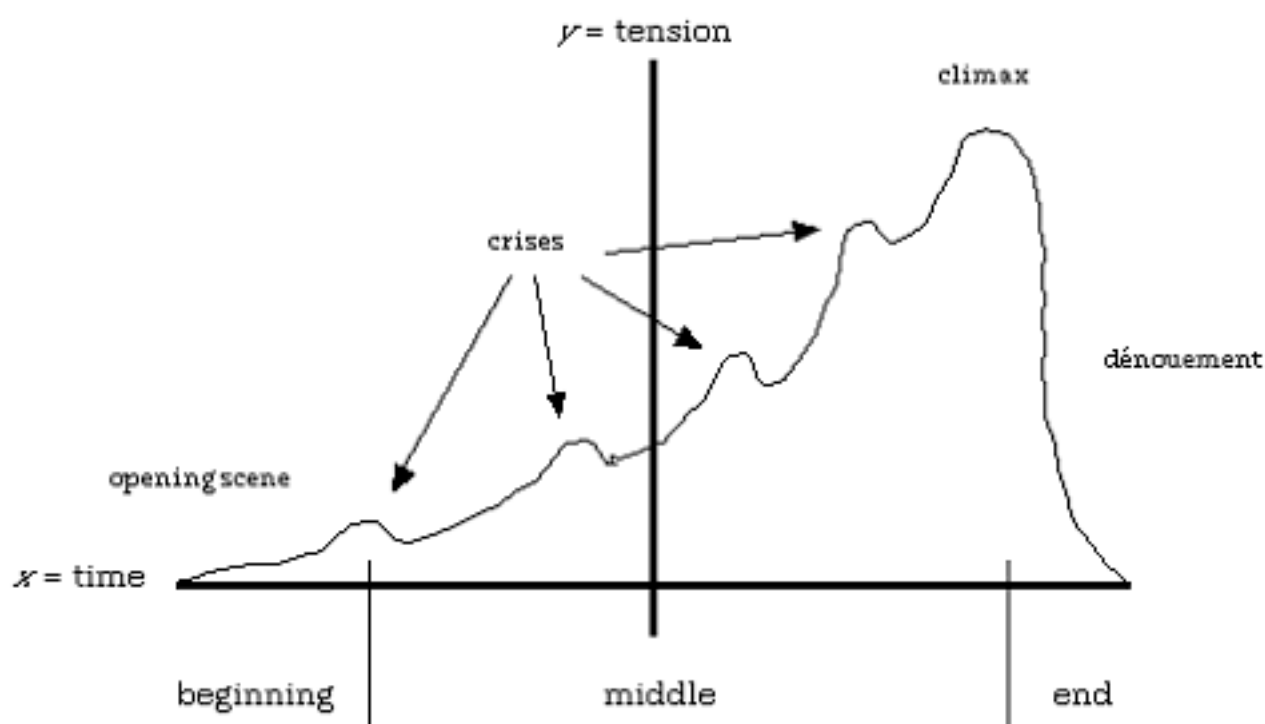
Image credit: [Wired](#) (Courtesy of Ballantine Books)

The movie, if you haven't guessed, was *Star Wars*. The author was George Lucas. *Star Wars* went on to become one of the most successful films of all time and turned into a pop culture phenomenon. It gave birth to the blockbuster and the trilogy, and completely changed the way movies with special effects were made. Many of today's most influential film companies were spawned from the success of these movies: LucasFilm, THX, Industrial Light & Magic (ILM), and Pixar.

Star Wars wasn't a new story though. It drew from mythic archetypes of stories told over thousands of years.

Revealing the Design in Stories

The creation of a story is often viewed as an almost magical or random process. The author sits in front of their canvas, the blank word processor, and begins to type whatever inspires them at the moment. Great stories, though, don't just happen randomly; they are designed. There is a pattern at work here. In order to be entertaining, have the right dramatic cues, and tap deep into our collective psyche, a specific method is used to build the story. A story that fails to pull the audience emotionally and keep their attention may not have used enough of these patterns as a guide, as shown in the typical story arc below.

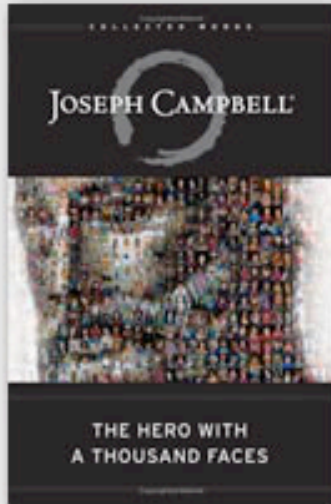


The story arc is widely used in screenwriting and novels.

The structure of the story has been around since long before screenwriting was taught. There was a point that it remained simply an unnoticed rhythm in the background of every story. Some aspects of this structure — like the hero's journey and comparative mythology — were first popularized by [Joseph Campbell](#). He wrote about his discovery in the book [The Hero with a Thousand Faces](#). Campbell was a student of Swiss Psychiatrist [Carl Jung](#), who believed that we are all born with a subconscious idea of what a "hero", a "mentor", and a "quest" should be.

Campbell studied the structure of religion and myths across many cultures. What he discovered is that, consciously or not, every story (or myth) told had been created with the same basic formula. This is why great stories transcend even language barriers. It was this conclusion made by Campbell through his research that created large ripples in the waters of myth and religion.

Common Mythic Elements



Two Worlds (mundane and special)

Reality vs. The Matrix

Planetside vs. Death Star

The Mentor

Morpheus

Obi-Wan Kenobi

The Oracle

The Oracle

Yoda

The Prophecy

Morpheus will find "The One"

Luke will overthrow the Emperor

Failed Hero

Cypher (early version of the script)

Biggs

Wearing Enemy's Skin

Neo jumps into agent's skin

Luke and Han wear stormtrooper outfits

Shapeshifter (the Hero isn't sure if he can trust this character)

Cypher

Han Solo

Chasing a lone animal into the enchanted wood (the animal usually gets away)

Neo "follows the white rabbit" to the nightclub where he meets Trinity

Luke follows R2 into the Jundland Wastes

We find the blueprint for "The Hero's Journey" in films like *Star Wars* and *The Matrix* (via [Star Wars Origins](#), Unofficial Site)

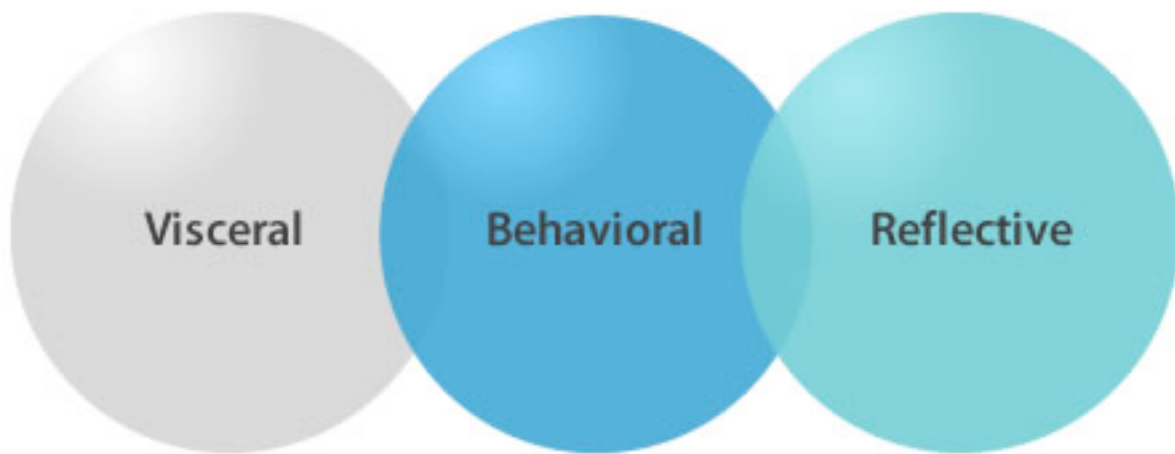
The stories we have seen on the silver screen or read about in novels have been able to captivate us by continuing to use these patterns. We talk about dialogue and certain scenes at the water cooler as if they had happened to a mutual friend, rather than some fictional character. All because we became emotionally invested in the characters and the story.

This type of emotional investment is something that brands strive for every day. Starbucks doesn't want to just sell us a cup of coffee; they want customers to become invested in their story — the ambience, the aromas, the community. The goal is to become the "third place" for people (work, home, and Starbucks). They say, for them, "It's really about human connection."

The Power of Emotion

When speaking about stories, we describe the experience in a certain way. It tends to be more of an emotional experience, sometimes affecting us more on a personal level in how we relate to the story. This is much different from the way we traditionally describe the experience with products like websites or applications. Those are seen as more utilitarian and task-oriented.

If we are able to accomplish what we came to do, say transfer some money in a banking application, then it has been a good user experience. In order to achieve our goals, the interface should be usable and function the way we expect. This view is preached by many usability experts including [Donald Norman](#), a professor of cognitive science and usability consultant for the [Nielsen Norman Group](#).



How the Brain Processes an Experience

After hearing that if people followed his rules “everything would be ugly,” Norman decided to explore people’s relationship to design. The result was the book [*Emotional Design*](#). Through his research, Norman found that design affects how people experience products, which happens at three different levels, and translates into three types of design:

- **Visceral Design** This design is from a subconscious and biologically pre-wired programmed level of thinking. We might automatically dislike certain things (spiders, rotten smells, etc.) and automatically like others (“attractive” people, symmetrical objects, etc). This is our initial reaction to the appearance.
- **Behavioral Design** This is how the product/application functions, the look and feel, the usability, our total experience with using the product/application.

-
- **Reflective Design** This is how it makes us feel after the initial impact and interacting with the product/application, where we associate products with our broader life experience and associate meaning and value to them.



Image credit: D. Alan Harris Photography

There is a lot more to emotion than can be covered here, but understanding those basic levels of processing gives us some insight into why storytelling is so powerful. Consider how the levels of thinking play off each other in an amusement park: People pay to be scared. At the Visceral Level we have a fear of heights and danger. At the Reflective Level we trust that it is safe to go on the ride, and we seek that emotionally charged rush and sense of accomplishment (overcoming that fear of heights) after the

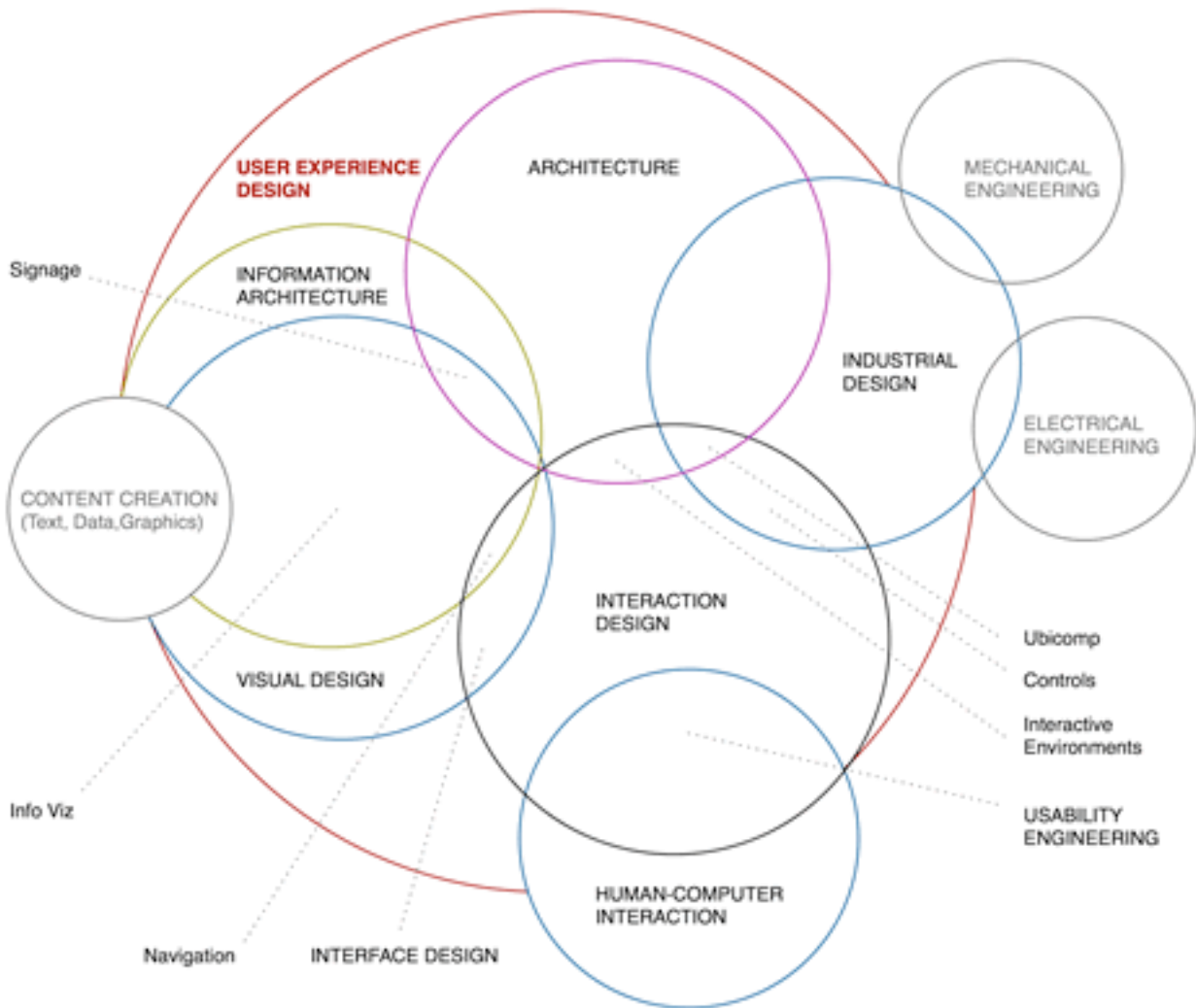
ride is finished. Knowing that emotion is so vital to how we think makes it more important to create not just a functional and usable experience, but to seek and make a meaningful connection.

The Basics of Storytelling for User Experience

At a basic level, storytelling and user experience have common elements — like planning, research, and content creation — that can be utilized for effectively developing an experience. Storytelling offers a way for the team to really understand what they are building and the audience that they are creating it for. Stories allow for the most complex of ideas to be effectively conveyed to a variety of people. This designed product/experience can then offer meaning and emotion for its users. The professionals that are currently using the power of narrative in their projects are doing it in vastly different ways. The following sections attempt to outline some of the current usage and benefits of modern storytelling.

Bring Teams Together

User experience professionals typically have to work with people from many different backgrounds. Depending on the type of experience, it might require the effort of everyone from an engineer to a user interface designer. Also, in many cases, the approach in creating websites or applications is to consider the technology, or limitations of that technology, first. Finally, to make matters more complex, larger teams tend to be split with concerns regarding their domain. For example, the marketing person is going to focus on their directives and motivations based on their initiatives. This is not always in the end-user's best interest and results in a diluted and poor experience.



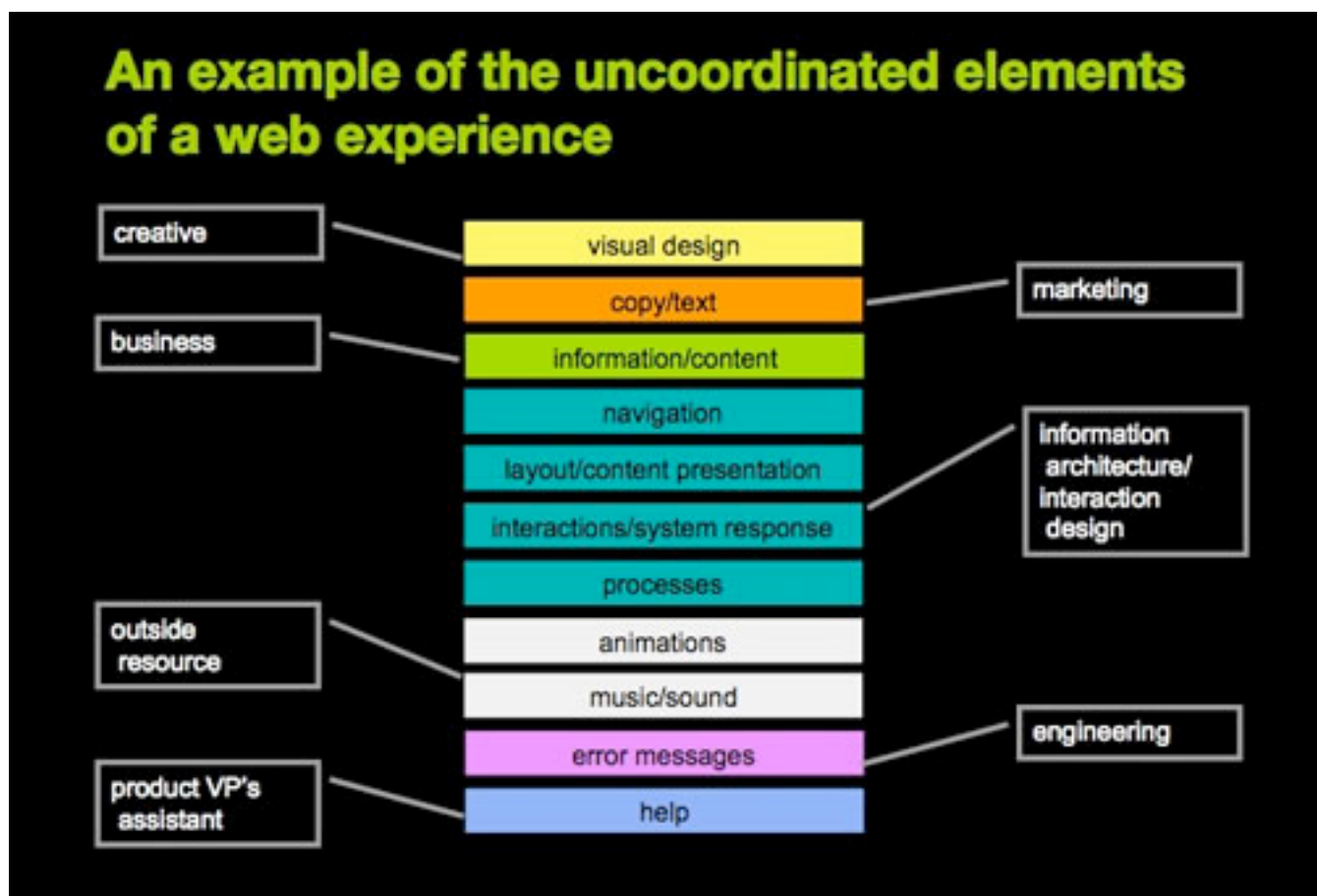
The Disciplines of User Experience by Dan Saffer

The infographic above depicts the many different fields that make up the disciplines of user experience. The user experience team selected to create an iPhone application for the masses would be quite different from one that is developing a medical device used by doctors. As described earlier, the individuals that have been involved in crafting stories have been successful in tapping into a way of communicating that has been around for thousands of years. Utilizing storytelling, user experience teams can also inject emotion and value into the end product for users.

User-Centered Goal

In reading through the storytelling approach, it might seem that the story is just another way of saying “strategy.” With storytelling, though, tied to the story the interactions should communicate is a more user-centered goal. Companies like Apple have used similar methods in their design process to really define what they are building.

[Cindy Chastain](#) refers to it as an Experience Theme. She says this theme is “the core value of the experience” being created. [Christian Saylor](#) refers to it as finding the Lead Character. Without this user-centered goal, he states, we are just “designing for the sake of designing.”



By centering around a specific theme, or character, the uncoordinated elements of an experience all have a clear goal and purpose. With storytelling, a diverse team creating a website or application can collectively link together the tangible elements and create something that is a meaningful experience and is more than just bits and bytes.


Defining the User

There is a lot of discussion and articles about usability and functionality of websites and applications. Functionality, of course, is important. For example, what good is an airplane if the engine isn't powerful enough to get it off the ground? If you take a step back though, the more important question should be: How far does the user need to go? If it's only a few miles down the road, then it really doesn't matter if the plane is functional, it's the wrong solution altogether. So, discovering what we really need to build is a key in the initial phase of building the user experience.



Image source: [Mishka](#)

When research is finished, we typically move on to create personas as a way of understanding the user and can be looked at as part of creating the story. By building a fictional representation of the user that is based on real research and observation, we are able to empathize with them and really understand their needs. Using the created personas and then creating stories about them, we are able to cast a more meaningful vision of the project.

William Creech Primary persona	Title: Owner, Ream Design Company size: 6 Age: 35 Location: San Francisco, CA Education: BA Finance Income: \$120,000
	ABOUT William is a 35 year old small business owner located in San Francisco, California. His business, Ream Design, focuses on online marketing and design projects. He spends the majority of his time working - split 20/80 between his home office and studio workspace in the city. He currently employs a team of five people with code skill set of branding, marketing, design. Ream Design normally has 1 to 2 projects concurrently and they use a large number of outside talent to fill in, particularly with coding tasks. William splits his time between managing projects, clients relationships, networking, and finding new projects. Outside of the office William spends his time with his wife Susan and their 7 year old son Marvin. During his free time William likes to be active outside, running, hiking, and

[Persona Sample](#) by Fuzzy Math

The storytelling approach allows us to transfer this research in an anecdotal way. This has shown to have a better recall rate of information. In addition, being able to empathize with users through stories allows for better understanding of the emotional side of the experience. Films and video games deliver successful experiences that impact people on an emotional level. This is something people will begin to expect more from websites and applications that they use everyday. We can evolve the focus of creating a simple task-driven and functional website/application into a valuable human connection. We are, after all, a “global campfire” as [Curt Cloninger](#) refers to it. He goes on to say, “But the web is not a global network of connected computers. The web is a global network of connected people.

And story-telling is still the most effective way to emotionally impact people.”

The Benefits

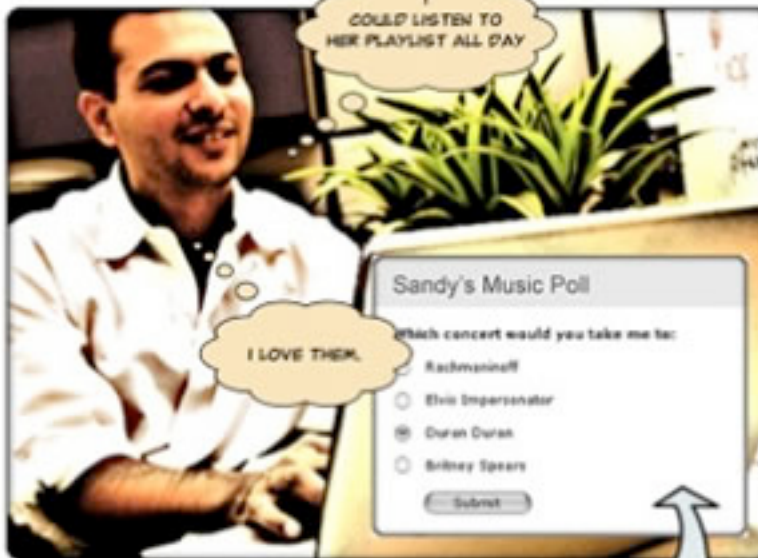
Most projects have a lot of documentation outlining their goal and strategy. These come in a set of business requirements, functional documentation, and any other pieces of supporting research/information. Using storytelling can help improve the overall product/experience:

- Puts a human face on dry data
- Can simplify complex ideas for a team
- More efficient team collaboration and purpose
- Insight into the key users
- Setting a project direction faster
- Better communication within large agencies/organizations
- Experience delivers meaning and value to users

6. Meanwhile, at Steve's...

YAHOO! PERSONALS

STEVE CAN SEE THAT SANDY VIEWED HIS PROFILE, AND AFTER CHECKING HER OUT, HE FEELS LIKE HE REALLY KNOWS WHO SHE IS.



HE ANSWERS HER POLL, SEE'S THAT SHE'S ONLINE, AND SENDS HER A FUNNY MUSICAL ICEBREAKER VIA IM WITH VOICE.



SANDY, IN THE MEANTIME, IS LOOKING AT THE PROFILES OF GUYS WHO ANSWERED HER POLL. SHE WANTS TO SEND STEVE AN EMAIL, SO SHE SUBSCRIBES.

Storytelling can help teams focus their efforts on everything from the content on the website to understanding the business problem in a new way. For example, you can define the scope of a project quickly without designing or wireframing screens. [Dorelle Rabinowitz](#) shows how The UX team for Yahoo Personals created a story around how a fictional dating couple would go through some specific scenarios. Using this, the team was able to come to a better understanding of what the website should do and the type of experience the users go through. It opened it up from very task- and strategy-based steps to the more real and emotional experience of dating. It is a powerful way to really get the team talking directly to the experience rather than creating documentation that only talks around it.

Happily Ever After: The Reality



Image source: *Fallen Princesses* by Dina Goldstein

There are many different opinions on what the ideal user experience process should be. Many of them stem from the fundamental approaches developed by [Alan Cooper](#), a pioneer in building software with user-driven experiences. But as technology evolves, so do the approaches and processes to create solutions that meet users' needs. The variety of approaches in UX are akin to the number of frameworks available for developing software. Much of the time it comes down to what is best for the type of projects a team typically works on.

Your ability to adhere to a process is dependent on many things, like timeline, budget, and business goals. In reality, it's not always possible to do everything as specifically outlined. Storytelling is a way to connect teams quickly, and gain insight and understanding. The experiences we create communicate with those elements through the design, content, and user interaction. Storytellers have successfully been communicating for much longer than websites have been around — which makes it a valuable tool from the business side of design.

Better User Experience With Storytelling, Part 2

By Francisco Inchauste, February 11th, 2010

In the first part of this *Better User Experience With Storytelling* series, we explored some of the basic structures and story patterns found in myths and religions. We saw how these patterns continued into modern stories such as *The Matrix* and *Star Wars*. We also explored some of the basics of bringing storytelling into the user experience process and some places to get started.

Concluding this two-part article, we hear from creative professionals who are leading the way in this relatively new world of combining the craft of storytelling with user experience. We'll also see how storytelling can be applied to more than just interactive experiences: we find it in everything from packaging to architecture.

A Few Modern-Day Storytellers

Although the idea of using storytelling within the user experience process is fairly new, a few professionals are using it in their projects. I spoke with some of these modern-day storytellers to get their perspective and see how they are applying storytelling to their work.

Dorelle Rabinowitz

[Dorelle](#) is a storyteller who designs, illustrates and tells stories in a variety of media and contexts. Mostly she tells stories.



www.slideshare.net/dorelvis/storytelling-a-compelling-design-tool

Question: How do you approach storytelling in UX?

Dorelle: I see it as another tool we can use as a catalyst for communicating during our design activities. For me as a designer, it's about putting a human face on the design process and bringing people together. You can get designers, engineers, product managers, strategists and execs jazzed about a proposed feature because of a story, and it can be extremely fulfilling. As a person, it's all about the emotional connection.

Back in the day, I'd worked on an Oxygen media site called "Our Stories," where we created short online digital stories with our audience. We called it co-creation, and when I moved more into designing user experiences I

realized that stories helped me understand my users better. As I did more and more work, I realized that storytelling facilitates communication, that people respond emotionally to stories, bond over stories and share stories again and again, and that the more I integrated storytelling into my work the better the work was.

So much of what we do isn't only about the design but about how we deal with people, negotiate and plan. Storytelling can be effective in all of these situations as well as in driving towards our solutions. I think the value of using stories is independent of the type of experience.

Question: In the end, business goals (i.e. profit) rule the day. How does storytelling tie into this?

Dorelle: Stories help bridge understanding, so storytelling can help teams get on the same page and speak the same language—leading to expected results. Stories can help people work more collaboratively and thus help teams get it done faster—faster time to market. Stories can help reframe business problems so that projects solve the right problems and come to a better solution.

Question: Where is the best place to learn more?

Dorelle: Cindy Chastain's article in Boxes and Arrows on [Experience Themes](#) is a great read.

Curt Cloninger

[Curt](#) is an artist and writer. He says his art doesn't really tell a standard narrative with a climax and resolution but rather tries to create a kind of event experience.



<http://www.lab404.com/dreams/library.html>

Question: How do you approach storytelling in UX?

Curt: Design, particularly graphic design, can be understood as a visual form of communication, and storytelling is a historically tested form of communication. Storytelling or narrative design is more like something to keep in mind when considering the user's experience.

To me, narrative design just means having a consistent "voice" and having every design element contributing to the same goal or conclusion. It also means allowing for an arc in the user experience. And it means allowing the user to have some kind of personal say in completing her experience. This is the difference between a novel (where the user mentally fills in lots of

visual blanks) and a Hollywood action film (where all the blanks are filled in for the user). A novel is arguably more engaging.

Question: In the end, business goals (i.e. profit) rule the day. How does storytelling tie into this?

Curt: Hollywood tells stories, and they seem to make a lot of money. Politicians, journalists and large corporations often tell stories (i.e. lies), and they make money. The evolution of any brand over time is a kind of narrative. Corporations spend all sorts of money trying to convince us that their main character (Ronald McDonald) is the good guy. Narrative and capitalism have always enjoyed a fruitful relationship.

Question: Where is the best place to learn more?

Curt: I like Nathan Shedroff's [Experience Design](#) book. It's more about "XD" than "UX," but it addresses narrative at several points throughout. Richard Schechner's [Performance Theory](#) is good. It has nothing to do with user experience design per se, but it is about theater, tribal ritual and the cultural interfaces that people construct to give meaning to their worlds.

Christian Saylor

[Christian](#) is a storyteller who designs user experiences. He believes that the things around us have very powerful stories to tell.



<http://www.undertheinfluenceofdesign.com/2009/06/19/the-art-of-storytelling/>

Question: How do you approach storytelling in UX?

Christian: Storytelling gives us purpose and a sense of place. So, it hasn't been so much a "discovery" of storytelling as a natural progression towards uncovering an experience buried deep within a narrative that wants to be told. So this idea of adopting "storytelling" as a means to uncover a rich experience for the "end" user, whoever they may be, just makes sense.

At the end of the day, the job of the (UX) designer is to help tell a story that is relevant and meaningful, regardless of time, device or even location. We use "personas" (characters in our story) and "scenarios" (narratives that tell a story about the persona) in order to fully understand not only the target audience but also their goals and desires, which will ultimately help to create a meaningful experience for them.

I strongly believe that everything has a story associated with it. Every business, social group, concept, methodology and relationship is desperately seeking out better ways to engage with its audience. Some just happen to do it on a large scale (Apple), while others quietly create a pattern of life that goes unnoticed until it disappears (the remote control). From packaging that sits on the store shelf to the applications that follow us throughout our days, story influences just about every aspect of our lives. Story is all around us. It gives us a sense of understanding and knowledge of the people and things that are important to us.

I think the most important aspect of storytelling for me is that it has the ability to change the way we view and interact with our world.

Question: In the end, business goals (i.e. profit) rule the day. How does storytelling tie into this?

Christian: If you're telling the right story to the wrong audience, or even telling the right story the wrong way, then your business or product will ultimately fade away. Design and technology are the catalysts of change in the "experience economy." And if we don't seek out better ways to tell our story, then our business, product or service will be in jeopardy of losing its vitality. And as we all know, the business world is constantly looking at the bottom line. We live in a world saturated by products and services that vie for our attention, and the experience—the way in which a story is unfolded—will be the difference between a company's success and failure.

Question: Where is the best place to learn more?

Christian: [Lovemarks \(the future beyond brands\)](#) by Saatchi & Saatchi. It has unbelievable insight into the way we fall in love with the companies and products that surround us.

(Disclosure: Both Christian and the author are employees of [Universal Mind](#).)

Cindy Chastain

[Cindy](#) is a trained filmmaker and screenwriter. She continues to make films and write scripts and considers herself a visual and dramatic storyteller.



Experience Themes:

An Element of Story Applied to Design

<http://www.slideshare.net/cchastain/experience-themes-an-element-of-story-applied-to-design-1190389>

Question: How do you approach storytelling in UX?

Cindy: Storytelling is another discipline that can be used in the context of design as 1) a device, 2) a framework and/or 3) a craft to draw upon. In other words, we can use story as a way to capture and sell an idea; we can use it as a way to frame an approach to the design of a product or service; or we can use narrative techniques to craft an interaction and, hence, a variety of behavioral and emotional responses to a story.

We tell stories that seek to order chaos, provide meaning and engage the emotions of our listeners. We design experiences that hopefully do something similar. But in the context of design, meaning is also about what this experience, product or service will do for a person. It's about how something fits into or enhances his life. It's about understanding how something is supposed to function.

As designers we do well at facilitating the dialogue between people and the interactive products they use. But we often neglect to consider the more intangible layer of experience, the stories that evolve dynamically through interactions that people have with the things we make. We also lack an approach to holistic design. If we can learn to approach design more like writers approach stories, we will not only build richer experiences but start to develop a craft in our work that knows how and when certain narrative techniques can be used to engage the minds, emotions and imaginations of users.

Knowing the craft of narrative will help us build better stories, which will help us turn a set of lifeless features and functions into a whole experience that engages the minds and emotions of customers.

Question: In the end, business goals (i.e. profit) rule the day. How does storytelling tie into this?

Cindy: Brand message is no longer the thing that sells. Experience sells. If the intangible pleasure, emotion or meaning we seek can be made tangible through the use of story and narrative techniques, we will build more compelling product experiences. And if the experience is more compelling, businesses will profit from droves of loyal, experience-discerning customers.

Without this understanding, choices about what features should be included and how they should behave seem both uninspired and disconnected. Sure, we have business goals, user needs, design principles and best practices to draw on, but these things won't get us to a place where a team is collaborating in the same conceptual space, let alone designing for emotion and meaning.

Question: Where is the best place to learn more?

Cindy: Start with the discipline itself, like [Story](#), Robert McKee's book about screenwriting. For a dive into theory, I recommend [Narration in the Fiction Film](#), by David Bordwell and the classic [Computers as Theatre](#) by Brenda Laurel. And for the first word on storytelling read [The Poetics](#) by Aristotle.

The Storytelling Experiences Around Us

There are many experiences in which storytelling is used to create a compelling message that draws users in. The stories are not always visible or apparent right away, but underneath many good experiences we can find great stories. They may appear in a series of interactions that tie into a larger story or simply in an emotional connection that we form with a product or brand.

In Packaging: Apple

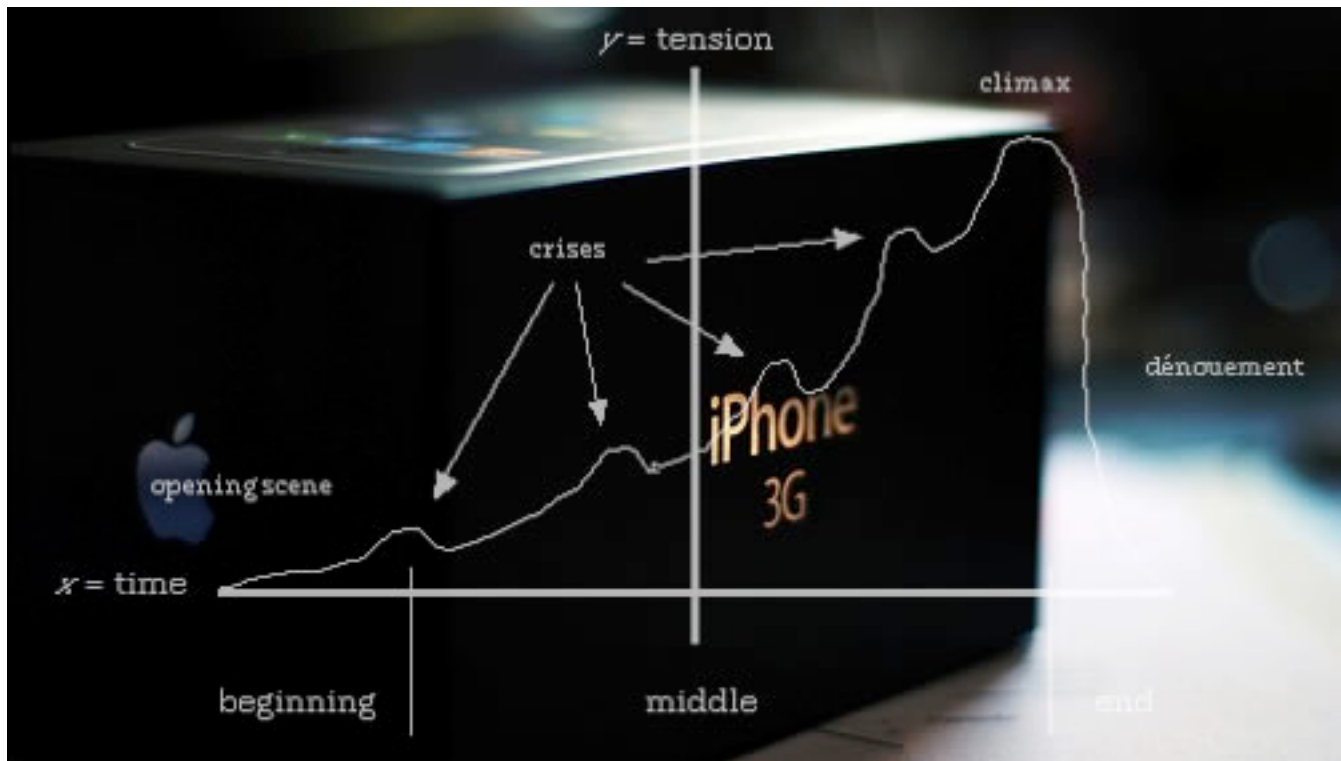


Image source: [Re.Mo](#) and [Typical Story Arc](#).

One company that excels at delivering a powerful story is Apple. Laid over the image of the iPhone box above is the story arc (introduced in part 1) that most screenplays and novels follow. Purchasing an Apple product and opening the many beautiful layers of the packaging follow a similar story arc in building anticipation. As you move through the process, you find compelling photography and clever writing. These build a sort of satisfying tension until you finally arrive at the climax of the experience and uncover the iPhone. A more common anti-climactic approach would be to wrap the iPhone in bubble plastic, reducing the story to a mere “Buy me.”

In Technology: Microsoft Courier



<http://gizmodo.com/5365299/courier-first-details-of-microsofts-secret-tablet>

The Microsoft Courier device is in the “late prototype” stage of development. This is more of a booklet than Apple’s iPad, with dual multi-touch screens. [This video](#) uses storytelling to take you through the user experience of the booklet. Instead of simply running through some of its cool features, it tells us the compelling story of a project in which the potential of the Courier is exploited.

In Marketing: Six Scents Perfume



<http://www.six-scents.com/>

The [Six Scents](#) range of fragrances is created annually by pairing six prominent artists with six celebrated perfumers. The goal is to help raise awareness for a specific charitable cause. For the second series, each bottle comes with a DVD that contains a film and photography. The film and imagery create a story around each scent to evoke a certain feeling and theme.

In Architecture: HBO Store



<http://www.imaginaryforces.com/featured-work/experience-design/hbo/>

The HBO Store (in mid-town Manhattan) is designed with storytelling built seamlessly into an immersive experience. The architecture and technology allow the space to become a new way to experience the props and merchandise for the HBO-based shows. The goal of the store (designed in part by design and branding studio [Imaginary Forces](http://www.imaginaryforces.com/)) was to create an intelligent and memorable experience for visitors.

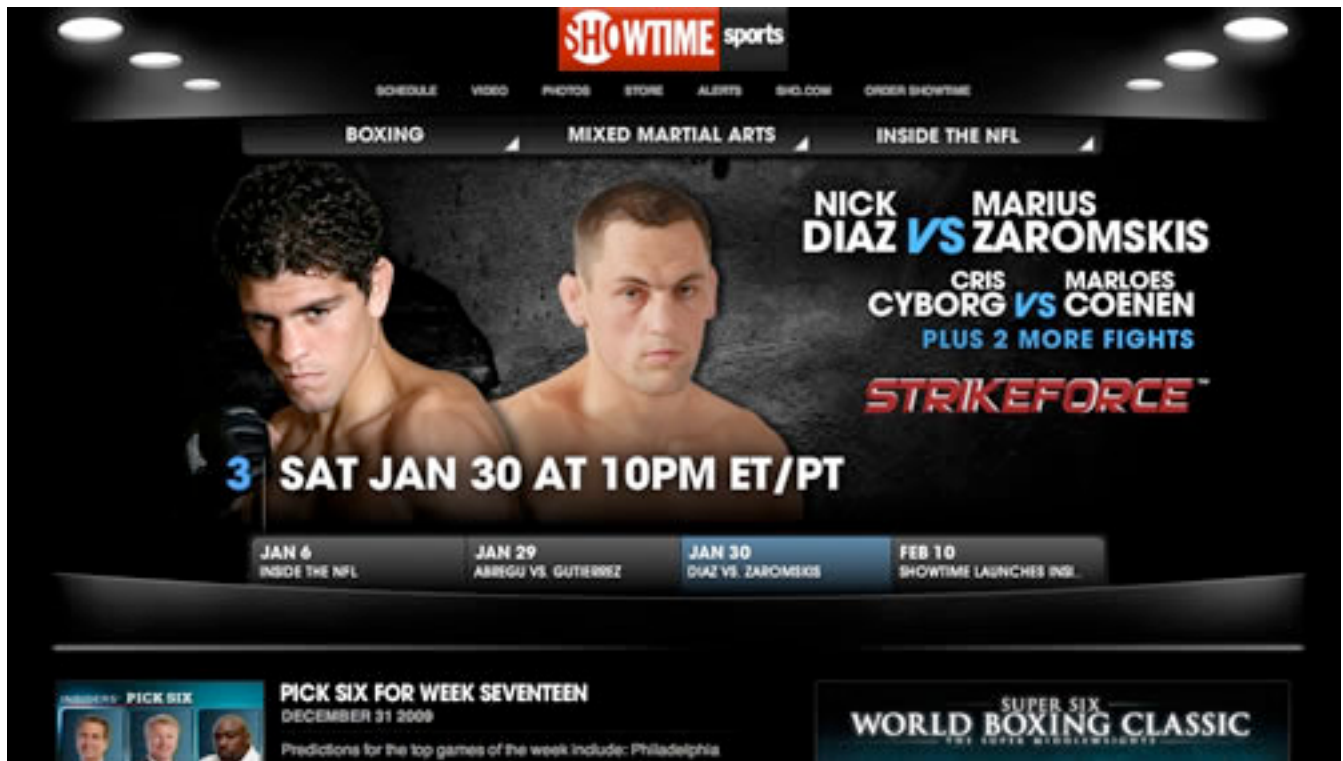
In Data: Taxi07:Roads Forward



http://www.designtrust.org/publications/publication_07roadsfwd.html

In her comments on storytelling, Dorelle Rabinowitz shows how storytelling can be used to communicate otherwise boring data and turn it into a more accessible experience. One example of this was [Taxi07:Roads Forward](#). It was a report for the New York City Taxi & Limousine Commission on the current state of the taxi cab industry in New York. The information was presented through stories in comic book form and beautiful infographics.

In Websites: Showtime Sports



<http://sports.sho.com/>

In a project for Showtime Sports, Cindy Chastain and the team at [Interactive Partners](#) created an engaging experience for fans using experience themes. Fans would be able to follow and learn about the full fight story online interactively through video. The experience themes guided not just the content but the functional requirements and website architecture.

Many aspects of storytelling and user experience could not be covered in a few articles. This series is meant to give you a starting point to explore and learn more. The end of this story hasn't been written. This is just the beginning of using storytelling in new ways.

The Beauty of Typography, Part 1

By Jessica Bordeau, May 18th, 2010

The beauty of typography has no borders. While most of us work with the familiar Latin alphabet, international projects usually require quite extensive knowledge about less familiar writing systems from around the world. The aesthetics and structure of such designs can be strongly related to the shape and legibility of the letterforms, so learning about international writing systems will certainly help you create more attractive and engaging Web designs.

Pick any language you like: Arabic, Chinese, Japanese, maybe Nepali? Each is based on a different writing system, which makes it interesting to figure out how they work. Today, we'll cover five categories of writing systems. This may sound tedious and academic, but it's not. If you take the time to understand them, you'll find that they all give us something special. We've tried to present at least one special feature of each language from which you can draw inspiration and apply to your own typography work. We'll cover: *East Asian writing systems*, *Arabic* and *Indic scripts (Brahmic)*. If you are interested, we will cover Cyrillic, Hebrew and other writing systems in the next post.

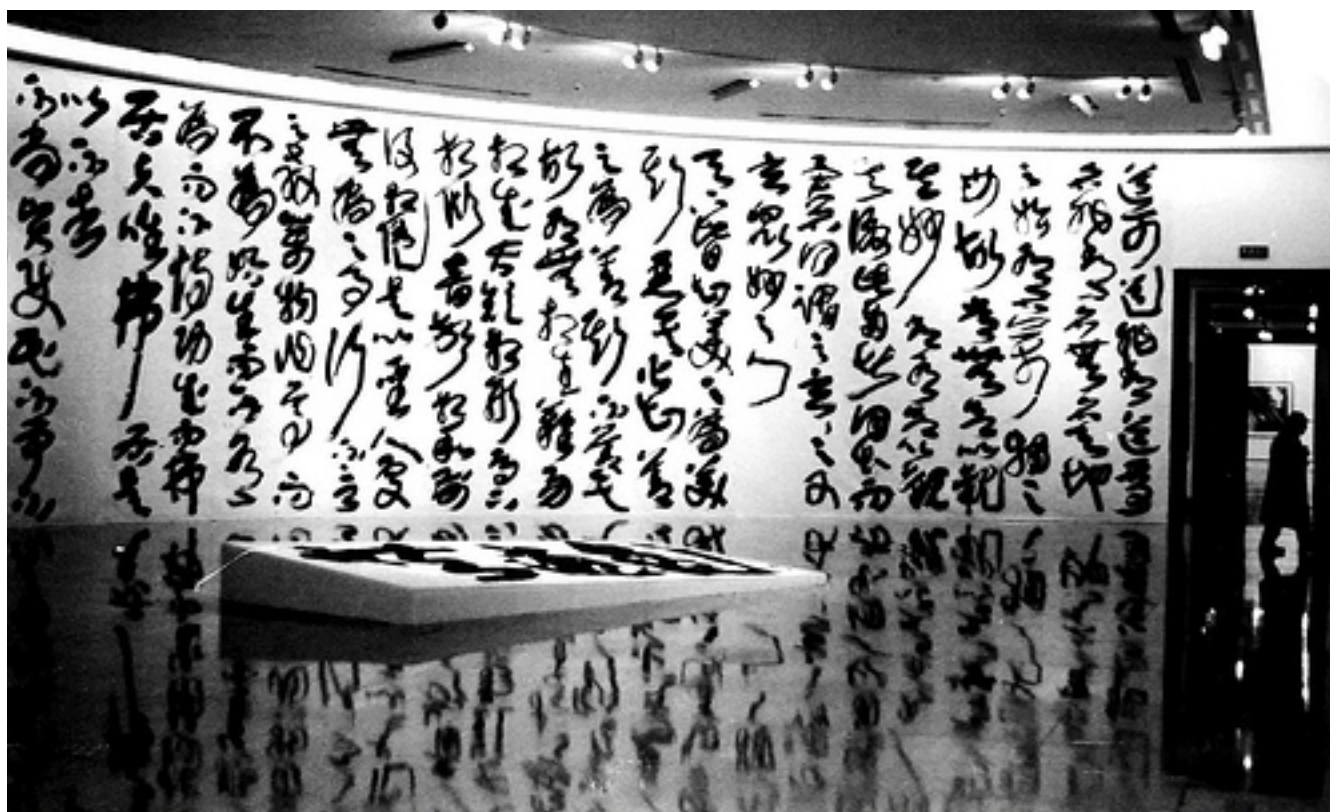
East Asian Writing Systems

Obviously, the Chinese uses Chinese characters (where they are known as *hanzi*). But Chinese characters are also used in various forms in Japanese (where they are known as *kanji*) and Korean (*hanja*). In this section, we will

look at four East Asian writing systems: Chinese, Japanese, Korean and Vietnamese.

Chinese Characters

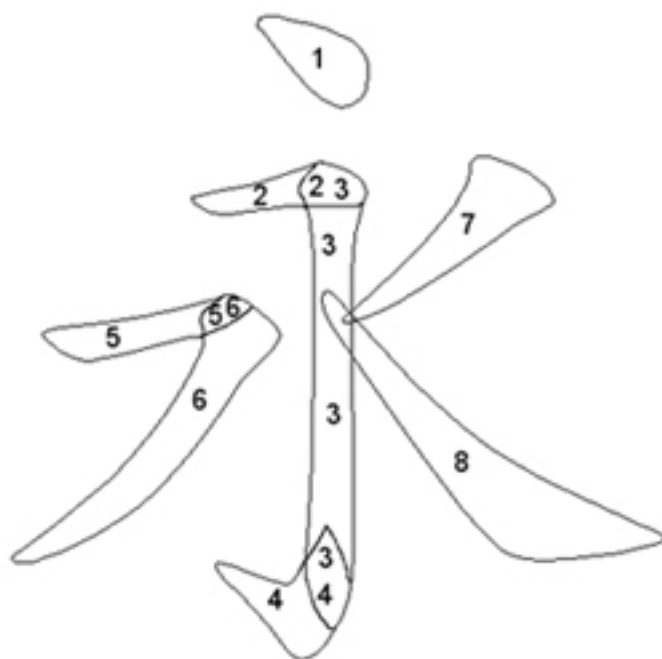
Chinese characters are symbols that do not comprise an alphabet. This writing system, in which each character generally represents either a complete one-syllable word or a single-syllable part of a word, is called logo-syllabic. This also means that each character has its own pronunciation, and there is no way to guess it. Add to this the fact that being literate in Chinese requires memorizing about 4,000 characters and you've got quite a language to learn. Fortunately for us, we don't need to learn Chinese in order to appreciate the beauty of its writing.



Because many commonly used Chinese characters have 10 to 30 strokes, certain stroke orders have been recommended to ensure speed, accuracy and legibility in composition. So, when learning a character, one has to learn the order in which it is written, and the sequence has general rules, such as: top to bottom, left to right, horizontal before vertical, middle before sides, left-falling before right-falling, outside before inside, inside before enclosing strokes.

The Eight Principles of Yong

The strokes in Chinese characters fall into eight main categories: horizontal (一), vertical (丨), left-falling (丿), right-falling (㇏), rising, dot (丶), hook (乚) and turning (㇀, ㇁, ㇂, etc.). The “Eight Principles of Yong” outlines how to write these strokes, which are common in Chinese characters and can all be found in the character for “yǒng” (永, which translates as “forever” or “permanence”). It was believed that practicing these principles frequently as a budding calligrapher would ensure beauty in one’s writing.



Four Treasures of the Study

"Four treasures of the study" is an expression that refers to the brush, ink, paper and ink stone used in Chinese and other East Asian calligraphic traditions. The head of the brush can be made of the hair (or feather) of a variety of animals, including wolf, rabbit, deer, chicken, duck, goat, pig and tiger. The Chinese and Japanese also have a tradition of making a brush from the hair of a newborn, as a once-in-a-lifetime souvenir for the child.



<http://www.cartridgesave.co.uk/news/the-story-of-ancient-chinas-love-affair-with-inkstones/>

Seal and Seal Paste

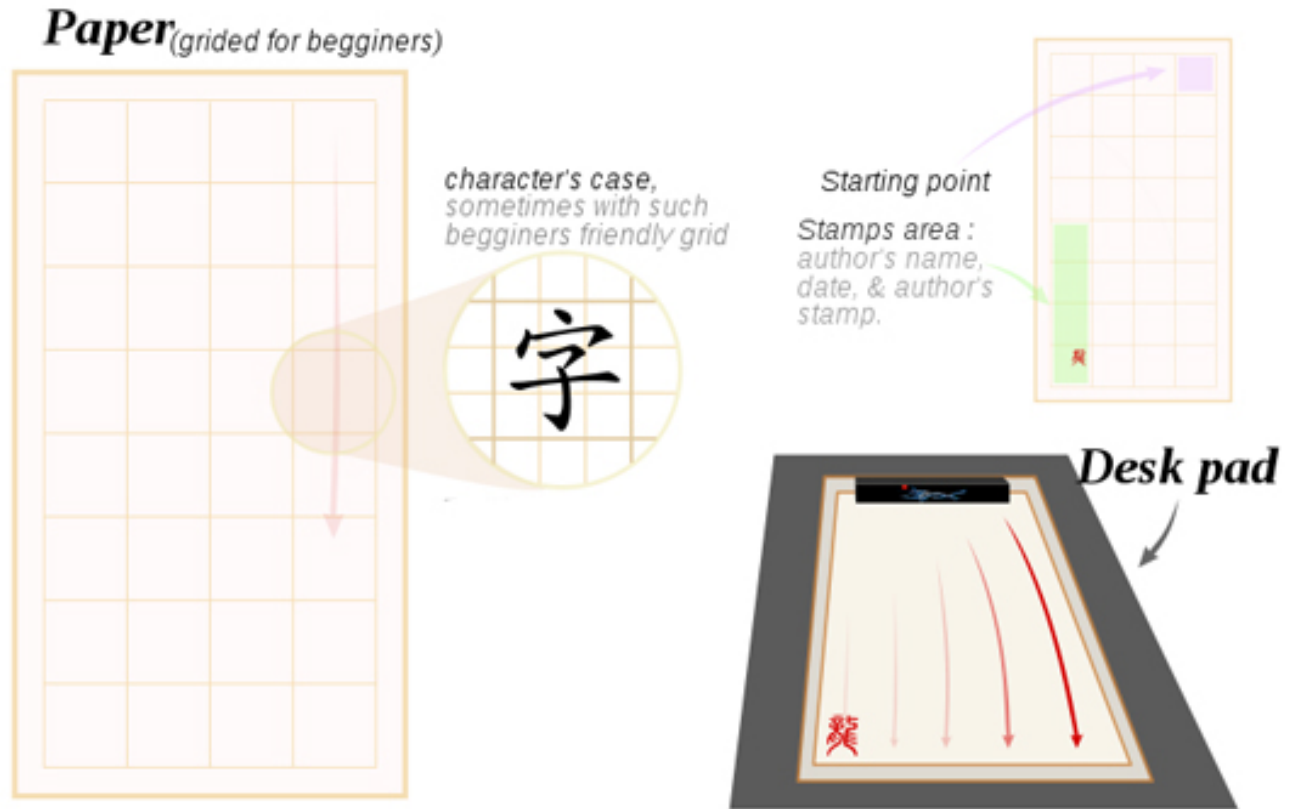
The artist usually completes their work of calligraphy by adding their seal at the very end, in red ink. The seal serves as a signature and is usually done in an old style.



<http://www.flickr.com/photos/kobucha/2931521265/in/photostream/>

Horizontal and Vertical Writing

Many East Asian scripts (such as Chinese, Japanese and Korean) can be written horizontally or vertically, because they consist mainly of disconnected syllabic units, each conforming to an imaginary square frame. Traditionally, Chinese is written in vertical columns from top to bottom; the first column on the right side of the page, and the text starting on the left.



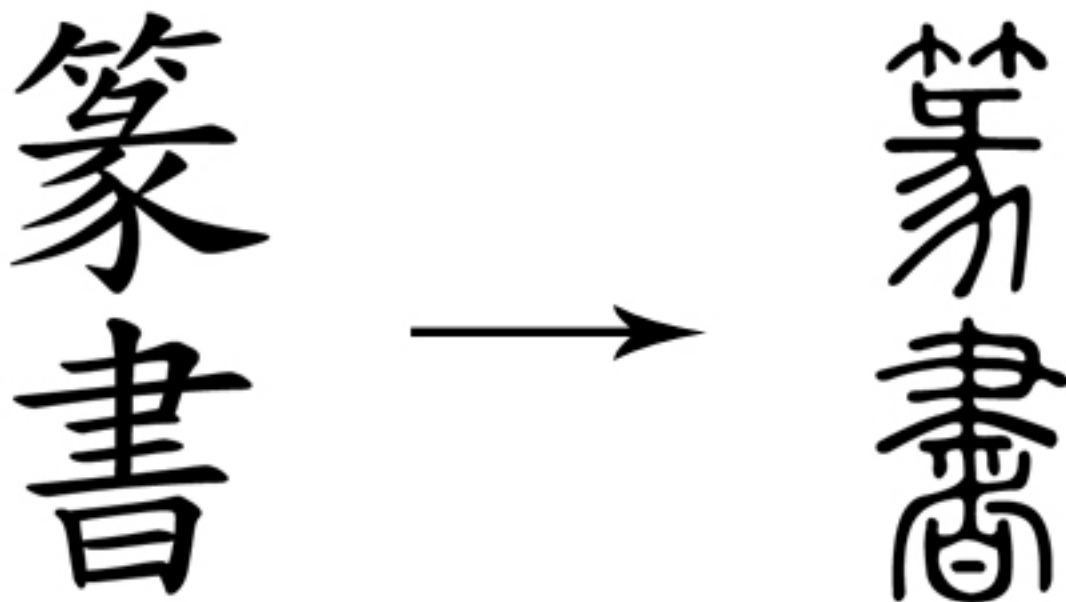
In modern times, using a Western layout of horizontal rows running from left to right and being read from top to bottom has become more popular. Signs are particularly challenging for written Chinese, because they can be written either left to right or right to left (the latter being more of a traditional layout, with each "column" being one character high), as well as top to bottom.

Different Styles

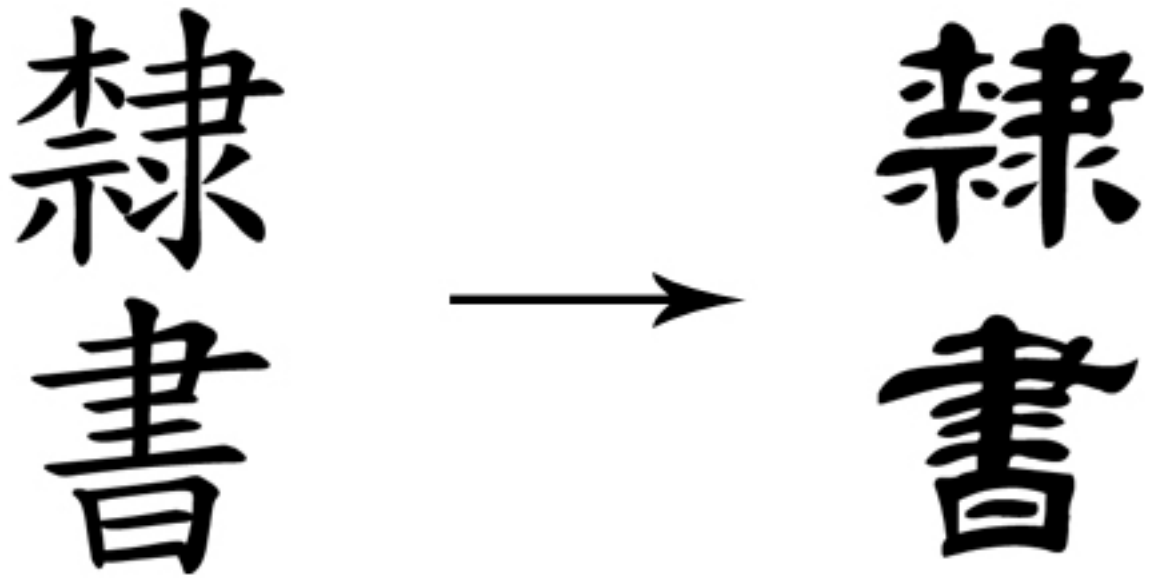
In Chinese calligraphy, Chinese characters can be written in five major styles. These styles are intrinsic to the history of Chinese script.

Seal script is the oldest style and continues to be widely practiced, although most people today cannot read it. It is considered an ancient

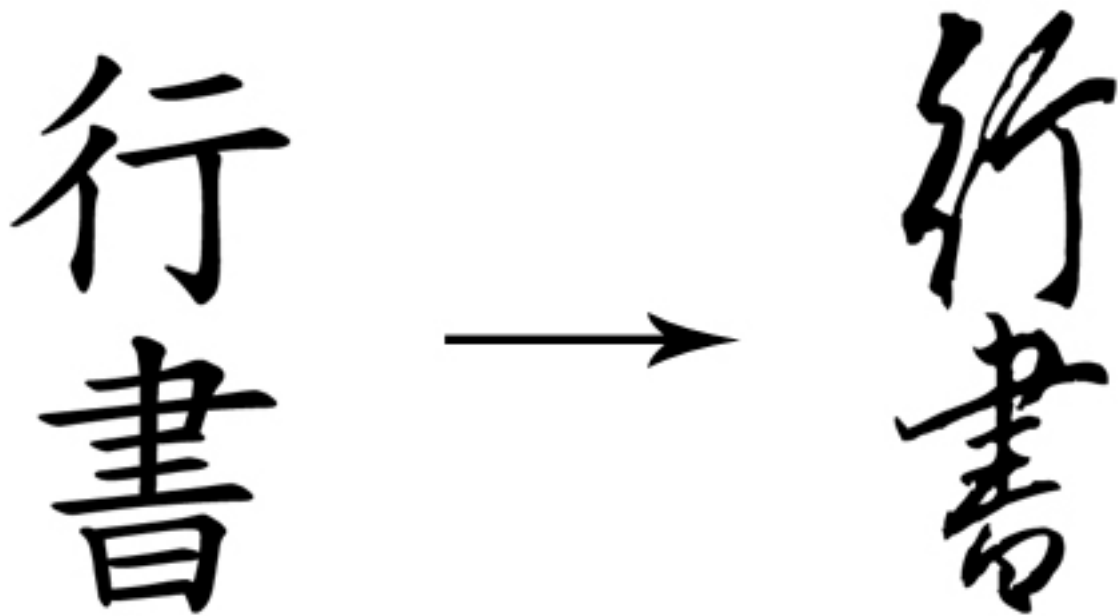
script, generally not used outside of calligraphy or carved seals, hence the name.



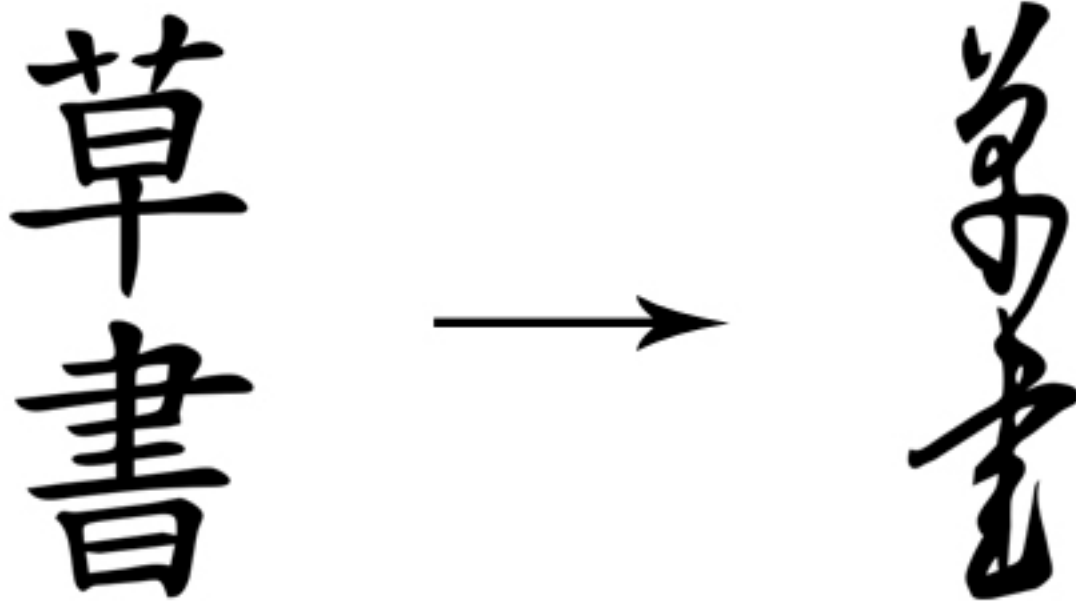
In **clerical script**, characters are generally “flat” in appearance. They are wider than the seal script and the modern standard script, both of which tend to be taller than wider. Some versions of clerical are square, and others are wider. Compared to seal script, forms are strikingly rectilinear; but some curvature and influence from seal script remains.



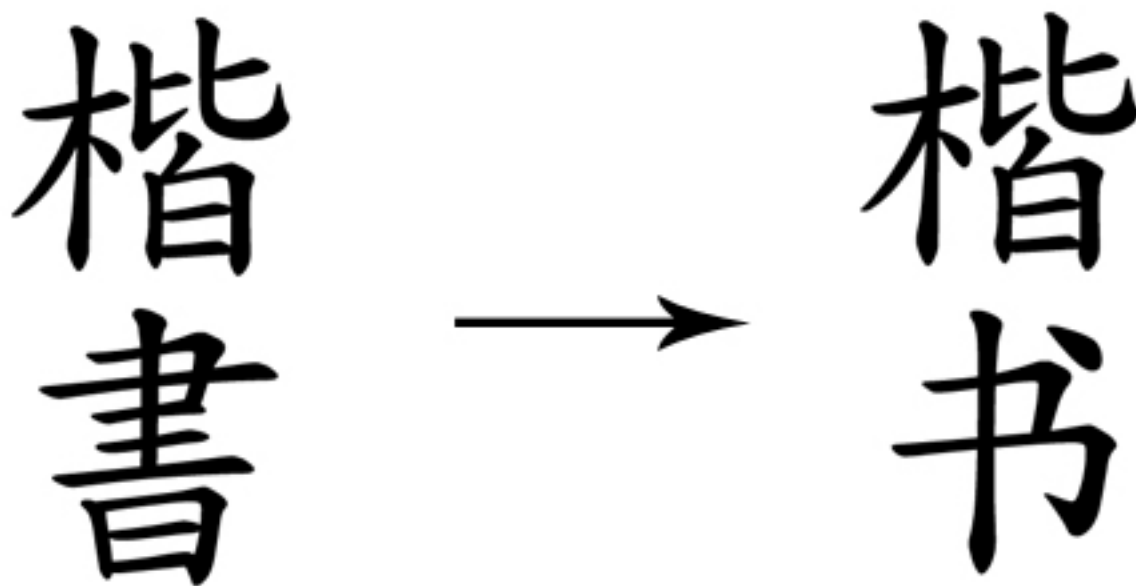
The **semi-cursive script** approximates normal handwriting, in which strokes and (more rarely) characters are allowed to run into one another. In writing in the semi-cursive script, the brush leaves the paper less often than with the regular script. Characters appear less angular and rounder. The characters are also bolder.



The **cursive script** is a fully cursive script, with drastic simplifications and ligatures, requiring specialized knowledge to be read. Entire characters may be written without lifting the brush from the paper at all, and characters frequently flow into one another. Strokes are modified or eliminated completely to facilitate smooth writing and create a beautiful abstract appearance. Characters are highly rounded and soft in appearance, with a noticeable lack of angular lines.



The **regular script** is one of the last major calligraphic styles to develop from a neatly written early-period semi-cursive form of clerical script. As the name suggests, this script is “regular,” with each stroke written slowly and carefully, the brush being lifted from the paper and all strokes distinct from each other.



Japanese

A rather different writing system is **Japanese**, which is syllabic, meaning that each symbol represents (or approximates) a syllable, combining to form words. No full-fledged script for written Japanese existed until the development of Man'yōgana (万葉仮名), an ancient writing system that employs Chinese characters to represent the Japanese language. The Japanese appropriated Kanji (derived from their Chinese readings) for their phonetic value rather than semantic value.



<http://www.flickr.com/photos/dezeneandjoyel/4036646164/>

The modern kana systems, Hiragana and Katakana, are simplifications and systemizations of Man'yōgana. Thus, the modern Japanese writing system uses three main scripts: Kanji, which is used for nouns and stems of adjectives and verbs; Hiragana, which is used for native Japanese words and written in the highly cursive flowing sōsho style; and Katakana, which is used for foreign borrowings and was developed by Buddhist monks as a shorthand. In Japan, cursive script has traditionally been considered suitable for women and was called women's script (女手 or onnade), while clerical style has been considered suitable for men and was called men's script (男手 or otokode).

Hiragana

		k	s	t	n	h	m	y	r	w	
a	あ	か	さ	た	な	は	ま	や	ら	わ	ん
i	い	き	し	ち	に	ひ	み		り	ゐ*	ⁿ nasal
u	う	く	す	つ	ぬ	ふ	む	ゆ	る		
e	え	け	せ	て	ね	へ	め		れ	ゑ*	
o	お	こ	そ	と	の	ほ	も	よ	ろ	を	

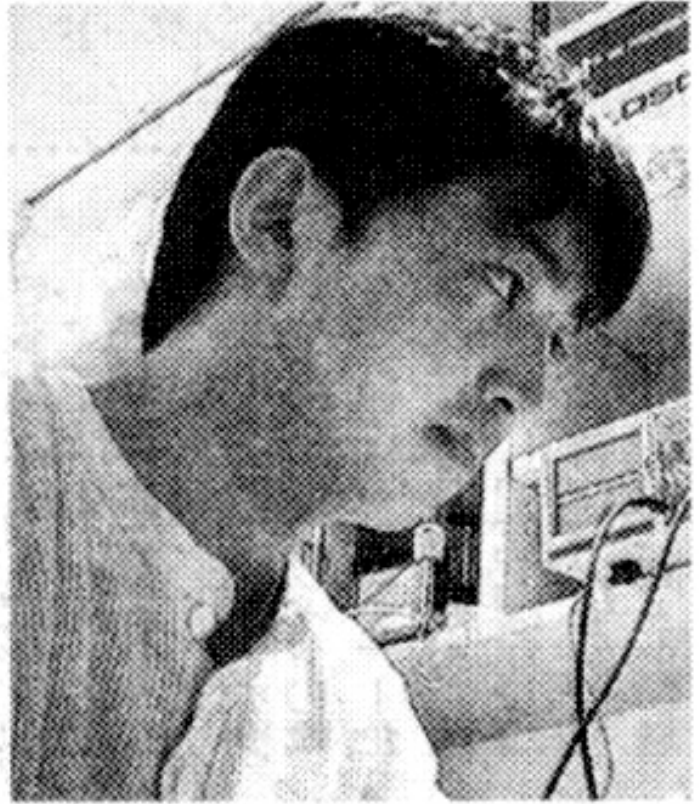
Katakana

		k	s	t	n	h	m	y	r	w	
a	ア	カ	サ	タ	ナ	ハ	マ	ヤ	ラ	ワ	ン
i	イ	キ	シ	チ	ニ	ヒ	ミ		リ	ヰ*	ⁿ nasal
u	ウ	ク	ス	ツ	ヌ	フ	ム	ユ	ル		
e	エ	ケ	セ	テ	ネ	ヘ	メ		レ	ヱ*	
o	オ	コ	ソ	ト	ノ	ホ	モ	ヨ	ロ	ヲ	

* no longer in use

The three scripts are often mixed in a single sentence.

磁気刺激を手がかりに 意識の解明に挑む



人間の脳で運動を支配している部分を外側からコイルで磁氣的に刺激すると、手や足が動く。ところが、視覚を支配する部分を普通に刺激しても、意識に上る効果はほとんどみられない。

脳と意識の関係を解明

するために「なんとか磁気刺激を利用したい」と考え、刺激の効果を意識に上る現象として見ることに成功した。被験者に格子縞じまの模様を見せてから、視覚皮質に磁気刺激を一瞬与えた結果、格子縞の一角に丸い穴があい

As we can see, the modern kana systems are simplifications of Man'yōgana. It is interesting to see how they have been simplified.

无 和 良 也 末 波 奈 太 左 加 安 爲 利 美 比 仁
 ん わ ら や ま は な た さ か あ る り み ひ に

知 之 機 以 留 由 武 不 奴 川 寸 久 宇 恵 礼 女
 ち し き い る ゆ む ふ ぬ っ す く う ゑ れ め

部 祢 天 世 計 衣 遠 呂 与 毛 保 乃 止 曾 己 於
 へ ね て せ け え を ろ よ も ほ の と そ こ お

Development of hiragana from man'yōgana.

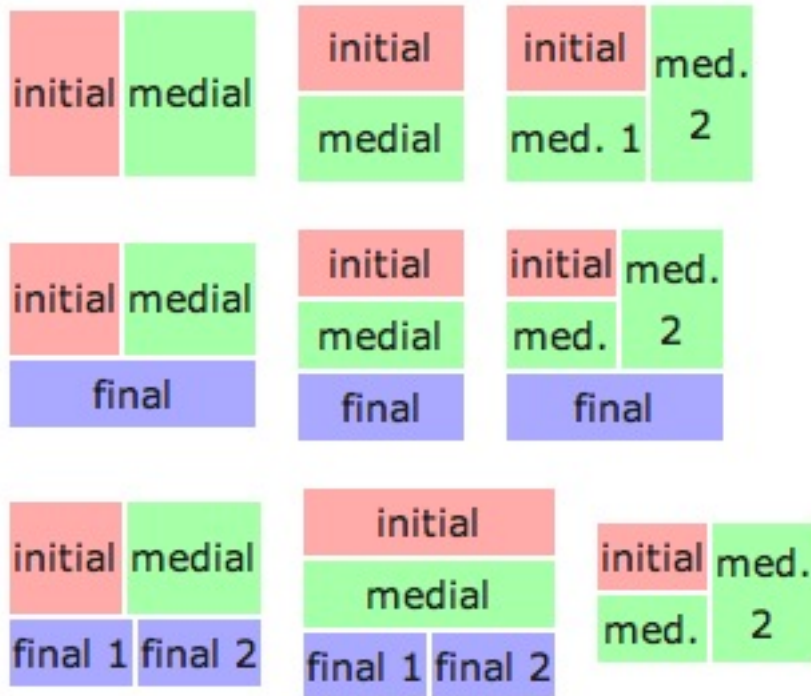
Korean Squares

Korean is itself a very different writing system. It uses Hangul, a “featural” writing system. The shapes of the letters are not arbitrary but encode phonological features of the phonemes they represent.

Hangul has existed since the middle of the 15th century (approximately 1440). But tradition prevailed, and scholars continued to use Classical Chinese as the literary language, and it was not until 1945 that Hangul became popular in Korea.



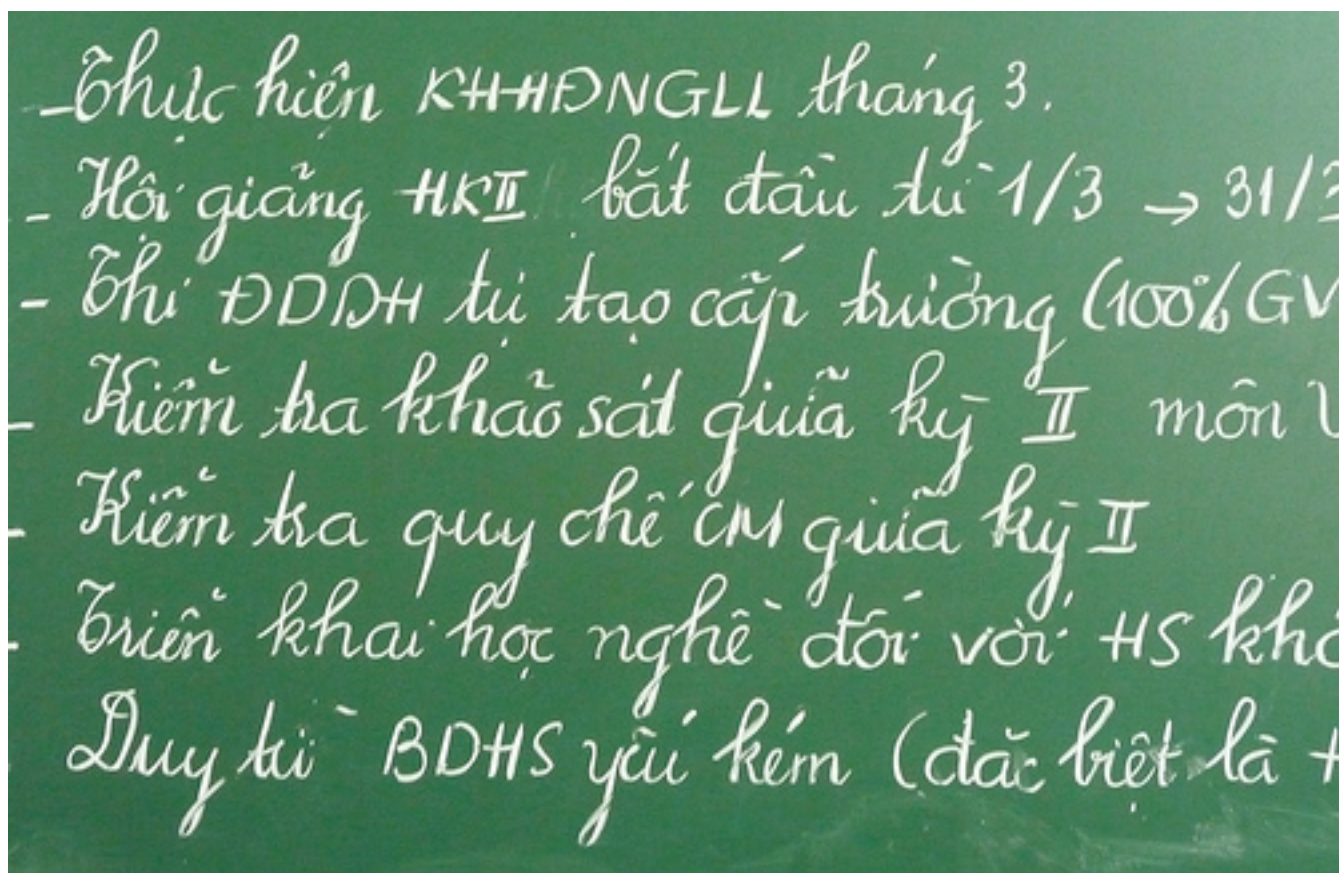
Jamo (자모; [字母](#)), or natsori (낱소리), are the units that make up the Hangul alphabet. “Ja” means letter or character, and “mo” means mother, suggesting that the jamo are the building blocks of the script. When writing out words, signs are grouped by syllables into squares. The layout of signs inside the square depends greatly on the syllable structure as well as which vowels are used.



We won't get into the detailed rules, but here is an example for inspiration:

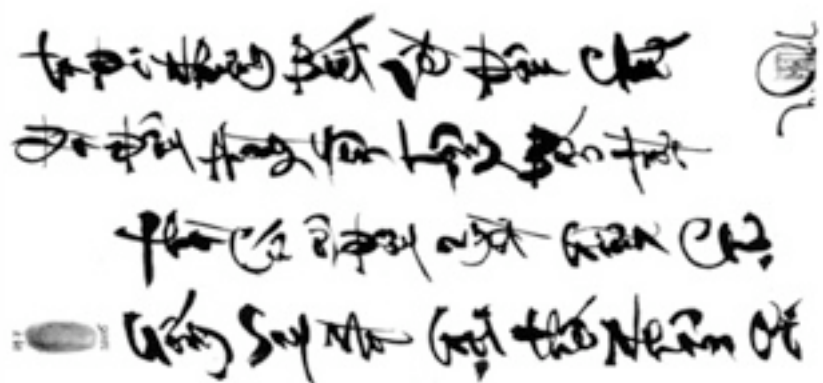
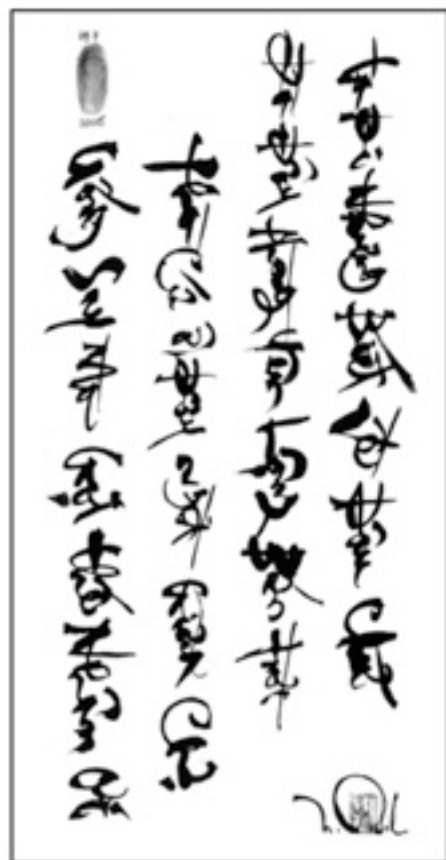
ㄱ + ㅐ + ㅍ → ㄱㅐㅍ

Vietnamese Rotation



<http://www.flickr.com/photos/heatherlyn/4462317132/>

The Vietnamese writing system in use today (called **Chữ Quốc Ngữ**) is adapted from the Latin alphabet, with some digraphs (i.e. pairs of characters used to write individual phonemes) and nine additional diacritics (accent marks) for tones and certain letters. Over the course of several centuries—from 1527, when Portuguese Christian missionaries began using the Latin alphabet to transcribe the Vietnamese language, to the early 20th century, when the French colonial administration made the Latin-based alphabet official—the Chinese character-based writing systems for Vietnamese gradually became limited to a small number of scholars and specialists.



However, the Chinese philosophy still exerts a strong influence. The stylized work above is by painter Tran Dat, who introduced a harmony between the shapes of Chinese and Vietnamese characters. If you rotate the first image 90 degrees counter-clockwise, you can make out the Vietnamese words. It is meant to be displayed vertically so that it appears as ancient Chinese text at first.

The Beauty of Typography, Part 2

By Jessica Bordeau, May 18th, 2010

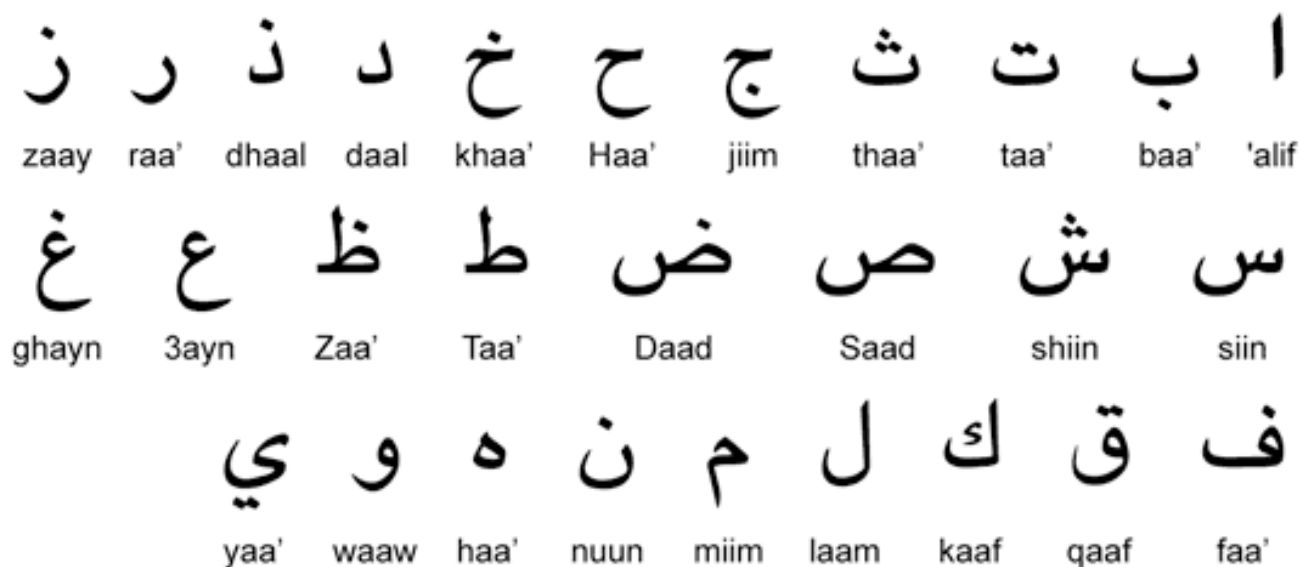
Arabic



<http://www.flickr.com/photos/cakehole/2628726857/>

Here we'll explore the beauty of Arabic, which has many styles and techniques. The Arabic alphabet was developed from the Nabataean script (which was itself derived from the Aramaic script) and contains a total of 28 letter. These 28 letters come from 18 basics shapes, to which one, two or three dots are added, above or below the letter. Arabic uses a writing

system that we haven't seen yet: an abjad, which is basically an alphabet that doesn't have any vowels—the reader must supply them.



Contextual Shaping

The shape of these letters changes depending on their position in the word (isolated, initial, medial or final). Here, for example, is the letter kaaf:



initial



medial



final

Diacritics

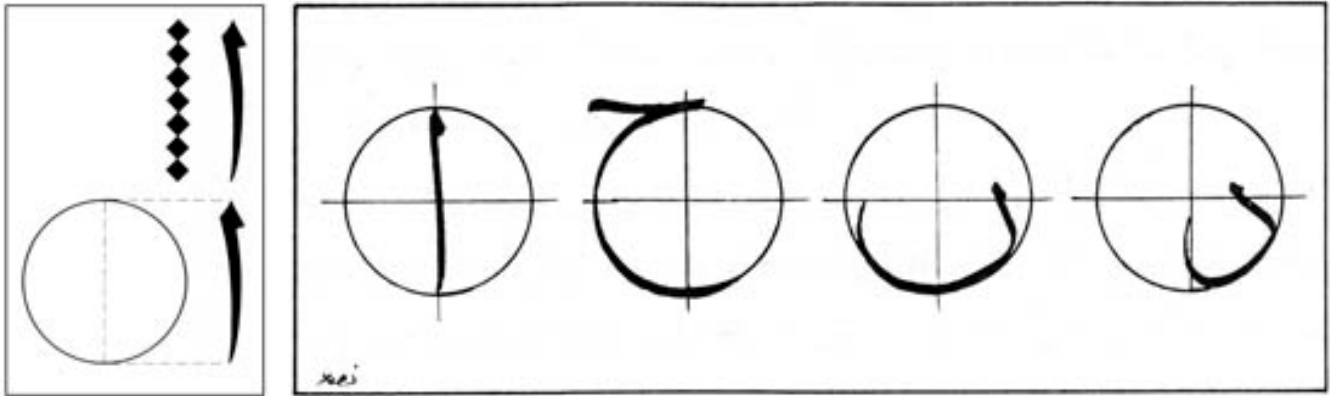
The Arabic script is an impure abjad, though. Short consonants and long vowels are represented by letters, but short vowels and long consonants are not generally indicated in writing. The script includes numerous diacritics, which serve to point out consonants in modern Arabic. These are nice and worth taking a look at.



Alif as a Unit of Proportion

Geometric principles and rules of proportion play an essential role in Arabic calligraphy. They govern the first letter of the alphabet, the alif, which is basically a straight vertical stroke.

- **The height of the alif** varies from 3 to 12 dots, depending on the calligrapher and style of script.
- **The width of the alif** (the dot) is a square impression formed by pressing the tip of the reed pen to paper. Its appearance depends on how the pen was cut and the pressure exerted by the fingers.
- The **imaginary circle**, which uses alif as its diameter, is a circle within which all Arabic letters could fit.



Different Styles

Arabic script has many different styles—over 100 in fact. But there are six primary styles, which can generally be distinguished as being either geometric (basically Kufic and its variations) and cursive (Naskh, Ruq'ah, Thuluth, etc.).

Kufi (or Kufic) is noted for its proportional measurements, angularity and squareness.



Tuluth means “one third,” referring to the proportion of the pen relative to an earlier style called Tumaar. It is notable for its cursive letters and use as an ornamental script.



Nasakh, meaning “copy,” is one of the earliest scripts with a comprehensive system of proportion. It is notable for its clarity for reading and writing and was used to copy the Qur’an.



Ta’liq means “hanging,” in reference to the shape of the letters. It is a cursive script developed by the Persians in the early part of the 9th century AD. It is also called Farsi (or Persian).

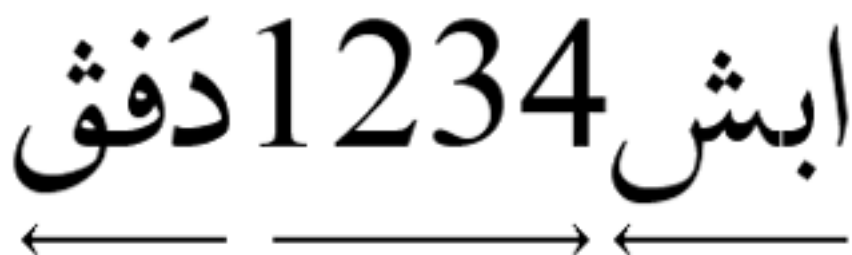
A sample of the Diwani script, showing the Basmala (Bismillah) in a highly stylized, cursive form. The letters are tightly connected, and the lines within the letters are complex and flowing.

Diwani was developed by the Ottomans from the Ta'liq style. This style became a favorite script in the Ottoman chancellery, and its name is derived from the word "Diwan," which means "royal court." Diwani is distinguished by the complexity of lines within letters and the close juxtaposition of letters within words.

Another sample of the Diwani script, showing the Basmala in a highly stylized, cursive form. The letters are tightly connected, and the lines within the letters are complex and flowing.

Bi-Directionnality

When left-to-right text is mixed with right-to-left in the same paragraph, each text should be written in its own direction, known as “bi-directional text.”



Material Used

In case you want to try, you’ll want to know what material to use. There is a lot of typical tools, such as brush pens, scissors, a knife to cut the pens and an ink pot. But the traditional instrument of the Arabic calligrapher is the qalam, a pen made of dried reed or bamboo. “The traditional way to hold the pen,” wrote Safadi in 1987, “is with middle finger, forefinger and thumb well spaced out along the [pen’s] shaft. Only the lightest possible pressure is applied.”

As for the ink, you have many options: black and brown (often used because their intensity and consistency can be varied greatly) as well as yellow, red, blue, white, silver and gold. The important thing is that the greater strokes of the composition be very dynamic in their effect.

A Few Techniques

The development of Arabic calligraphy led to several decorative styles that were intended to accommodate special needs or tastes and to please or impress others. Here are a few outstanding techniques and scripts.

Gulzar is defined by Safadi (1979) in Islamic calligraphy as the technique of filling the area within the outlines of relatively large letters with various ornamental devices, including floral designs, geometric patterns, hunting scenes, portraits, small script and other motifs. Gulzar is often used in composite calligraphy, where it is also surrounded by decorative units and calligraphic panels.



Maraya or muthanna is the technique of mirror writing, where the composition on the left reflects the composition on the right.



http://en.wikipedia.org/wiki/Template:POTD_protected/2009-10-24

Tughra is a unique calligraphic device that is used as a royal seal. The nishanghi or tughrakesh is the only scribe trained to write tughra. The emblems became quite ornate and were particularly favored by Ottoman officialdom.

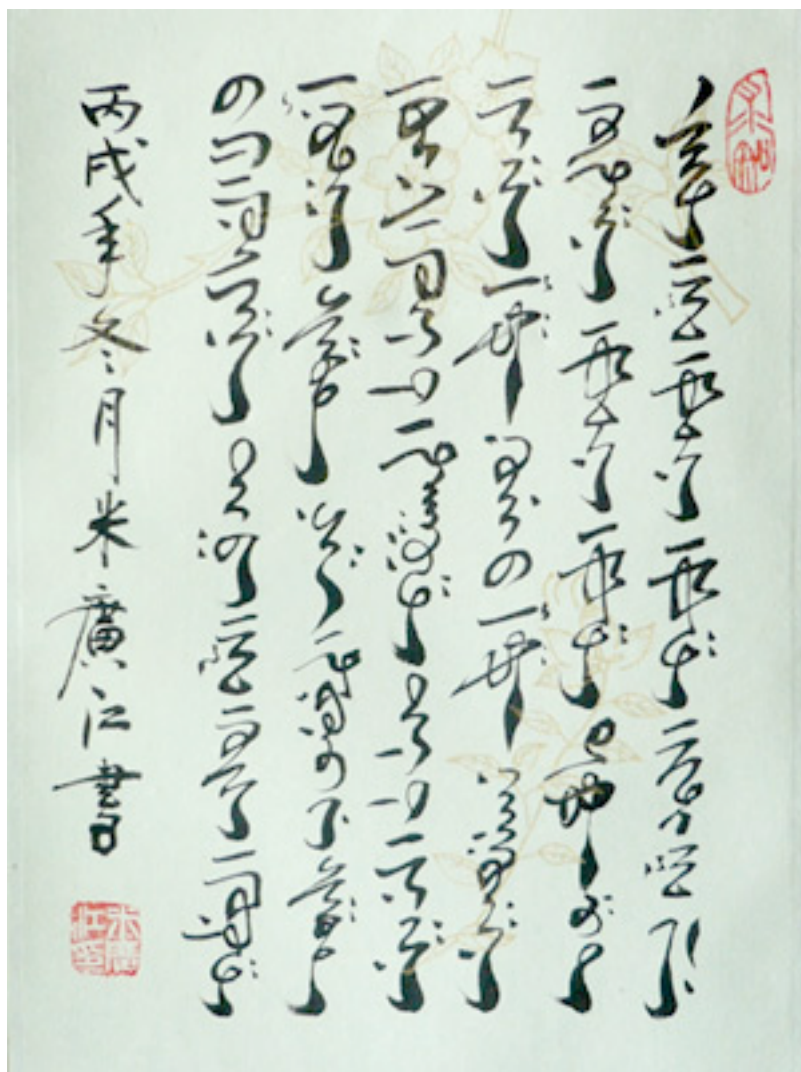


In **zoomorphic** calligraphy, the words are manipulated into the shape of a human figure, bird, animal or object.



Sini

Sini is a Chinese Islamic calligraphic form for the Arabic script. It can refer to any type of Chinese Islamic calligraphy but is commonly used to refer to one with thick tapered effects, much like Chinese calligraphy. It is used extensively in eastern China, one of whose famous Sini calligraphers is [Hajji Noor Deen](#).



Perso-Arabic Script: Nasta'liq Script

The predominant style in Persian calligraphy has traditionally been the Nasta'liq script. Although it is sometimes used to write Arabic-language text (where it is known as Ta'li, with Farsi used mainly for titles and headings), it has always been more popular in Persian, Turkic, and South Asian spheres. It is extensively practiced as a form of art in Iran, Pakistan and Afghanistan. Nasta'liq means "suspended," which is a good way to describe the way each letter in a word is suspended from the previous one (i.e. lower, rather than on the same level).



The Perso-Arabic script is exclusively cursive. That is, the majority of letters in a word connect to each other. This feature is also included on computers. Unconnected letters are not widely accepted. In Perso-Arabic, as in Arabic, words are written from right to left, while numbers are written from left to right. To represent non-Arabic sounds, new letters were created by adding dots, lines and other shapes to existing letters.

Indic Scripts (Brahmic)

The Indic or Brahmic scripts are the most extensive family of writing systems that we haven't looked at yet: abugidas. An abugidas is a segmental writing system which is based on consonants and in which vowel notation is obligatory but secondary. This contrasts with an alphabet

proper (in which vowels have a status equal to that of consonants) and with an abjad (in which vowel marking is absent or optional).

Indic scripts are used throughout South Asia, Southeast Asia and parts of Central and East Asia (e.g. Hindi, Sanskrit, Konkani, Marathi, Nepali, Sindhi and Sherpa). They are so widespread that they vary a lot, but Devanagari is the most important one.

Devanagari Ligatures and Matra



<http://www.flickr.com/photos/ianwatkinson/2317988116/>

Hindi and Nepali are both written in the Devanāgarī (देवनागरी) alphabet.

Devanagari is a compound word with two roots: deva, meaning “deity,” and nagari, meaning “city.” Together, they imply a script that is both religious and urban or sophisticated.

To represent sounds that are foreign to Indic phonology, additional letters have been coined by choosing an existing Devanagari letter that represents a similar sound and adding a dot (called a nukta) beneath it. It is written from left to right, lacks distinct letter cases and is recognizable by a distinctive horizontal line running along the tops of the letters and linking them together.

अ	आ	इ	ई	उ	ऊ
a	ā	i	ī	u	ū
ऋ	ॠ	ऌ	ॡ		
ॠ	ॡ				
ए	ऐ	ओ	औ	अं	अः
e	ai	o	au	aṁ	aḥ
क	ख	ग	घ	ङ	
ka	kha	ga	gha	ṅa	
च	छ	ज	झ	ञ	
ca	cha	ja	jha	ña	
ट	ठ	ड	ढ	ण	
ṭa	ṭha	ḍa	ḍha	ṇa	
त	थ	द	ध	न	
ta	tha	da	dha	na	
प	फ	ब	भ	म	
pa	pha	ba	bha	ma	
य	र	ल	व		
ya	ra	la	va		
श	ष	स	ह		
śa	ṣa	sa	ha		

In addition, a few other diacritics are used at the end of words, such as the dots illustrated below and the diagonal line, called virama, drawn under the last letter of a word if it is a consonant.

सं पः
saṁ paḥ
म् क् र्
m k r

One interesting aspect of Brahmic and in particular of Devanagari here is the horizontal line used for successive consonants that lack a vowel between them. They may physically join together as a “conjunct,” or ligature, a process called samyoga (meaning “yoked together” in Sanskrit). Sometimes, the individual letters can still be discerned, while at other times the conjunction creates new shapes.

स + त = स्त	sta
ष + ठ = ष्ठ	ṣṭa
क + ष = क्ष	kṣa
ह + ण = ह्र	hṇa
म + प + र = म्प्र	mpra

Here is a close-up of a nice ligature, the ddhrya ligature:



A letter in Devanagari has the default vowel of /a/. To indicate the same consonant followed by another vowel, additional strokes are added to the consonant letter. These strokes are called matras, or dependant forms of the vowel.

क का कि की कु कू कृ कृ के कै को कौ

Thai Stacking Diacritics

The writing system of Thai is based on Pali, Sanskrit and Indian concepts, and many Mon and Khmer words have entered the language.

ก	ข	ฃ	ค	ฅ	ฆ	ง	
k M	kh-, -k H	kh-, -k H	kh-, -k L	kh-, -k L	k L	ng L	
จ	ฉ	ช	ฌ	จ	ญ		
c-, -t M	ch H	ch-, -t L	s-, -t L	c- L	y-, -n L		
ฎ	ฏ	ฐ	ฑ	ฒ	ณ		
d-, -t M	t M	th-, -t H	th-, -t L	th-, -t L	n L		
ด	ต	ถ	ท	ธ	น		
d-, -t M	t M	th-, -t H	th-, -t L	th-, -t L	n L		
บ	ป	ผ	ฝ	พ	ฟ	ภ	ม
b-, -p M	p M	ph H	f H	ph-, -p L	f-, -p L	ph-, -p L	m L
ย	ร	ล	ว	ศ	ษ	ส	
y L	r-, -n L	l-, -n L	w L	s-, -t H	s-, -t H	s-, -t H	
ห	ฬ	อ	ฮ				
h H	l-, -n L	ʔ M	h L				

To represent a vowel other than the inherent one, extra strokes or marks are added around the basic letter. Thai has its own system of diacritics derived from Indian numerals, which denote different tones. Interestingly, like many non-Roman scripts, it has stacking diacritics.

บ้าน รณน

Tibetan Mantras

The form of Tibetan letters is based on an Indic alphabet of the mid-7th century. The orthography has not altered since the most important orthographic standardization, which took place during the early 9th century. The spoken language continues to change. As a result, in all modern Tibetan dialects, there is a great divergence of reading from the spelling.

The Tibetan script has 30 consonants, otherwise known as radicals. Syllables are separated by a tseg ` , and because many Tibetan words are monosyllabic, this mark often functions almost as a space.

ཀ་	ཁ་	ག་	ང་
ka	kha	ga	ṅa
ཅ་	ཆ་	ཇ་	ཉ་
tṣa	tṣha	dža	ña
ད་	ཐ་	ད་	ན་
ta	tha	da	na
པ་	ཕ་	བ་	མ་
pa	pha	ba	ma
ཅ་	ཆ་	ཇ་	
tsa	tsha	dza	
མ་	ཉ་	ཟ་	
wa	ža	za	
འ་	ཡ་	ར་	ལ་
'a	ya	ra	la
	ཤ་	ས་	
	śa	śa	
ད་	ཨ་		
ha	a		

As in other parts of East Asia, nobles, high lamas and persons of high rank were expected to have strong abilities in calligraphy. But the Tibetan script was done using a reed pen instead of a brush. As for a mantra, it is a sound,

syllable, word or group of words that is considered capable of "creating transformation."



<http://www.tibetanlife.com/tibetantattoos.html>

The use of mantras is widespread throughout spiritual movements that are based on or off-shoots of practices from earlier Eastern traditions and religions. The mantras used in Tibetan Buddhist practice are in Sanskrit, to preserve the original mantras. Visualizations and other practices are usually done in the Tibetan language.

Summary

So what should you take away from this article? We have seen that Arabic and Chinese calligraphy have many different scripts variations. From geometric to cursive to regular script, there is no such thing as one calligraphic style for a language. Sometimes there is even no such thing as one script per language. This is why Japanese is interesting: it is written in three different scripts that mix nicely. The construction of the Korean language is also fascinating: characters are grouped into squares that create syllables. Writing systems are ultimately diverse in construction, which makes them so interesting.

Many languages also have various components that can be used in our typography. Arabic and Thai, among many others, have a large system of diacritics. Arabic has a decorative aspect. Ligatures are directly related to our Latin alphabet but can be quite elaborated in such scripts as Devanagari. You could do a lot to spice up your own designs. Did you catch the red Chinese seal, which contrasts with the usual black ink? Have you thought of rotating your fonts to give them a whole new look, as Vietnamese calligraphers do? What about the Arabic teardrop-shaped writing? If you missed all of this, you have no choice but to scroll back up and take a closer look.

Bonus: How to Integrate These Languages on a Website?

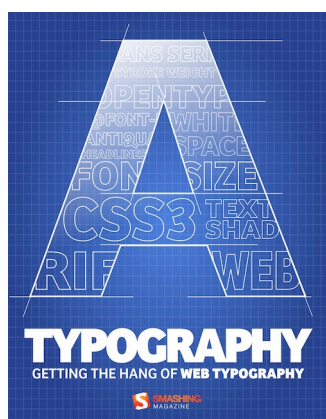
Working with foreign languages in international design projects can get a bit tricky. Obviously, studying the specifics of the language that you are supposed to work with will help you better anticipate user's needs and avoid embarrassing problems or misunderstandings. Tilt.its.psu.edu presents general guidelines for integration of various international

languages in websites. Below you'll find references to specific pages that cover details for writing systems presented in this article.

- [Japanese](#)
- [Arabic](#)
- [Chinese](#)
- [Devanagari](#)
- [Thai](#)
- [Tibetan](#)
- [Vietnamese](#)

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Web Designers, Don't Do It Alone

By Paul Boag, June 27th, 2010

Whether freelancers, small agency founders or website owners, too many of us work alone. The downside of the digital revolution is isolation. The Web allows us to do alone what previously would have required a team of people. It also frees us from the constraints of geography, allowing us to work from home. But while these are benefits, they also leave us isolated.

The Dangers Of Isolation

Over time, working in isolation (even if you function as part of a team) can prove harmful to your mental health, business and website. In fact, even if other people are working on a project of yours, if they are junior to you, you can still feel isolated.

If you don't find a peer with whom you can share ideas and discuss your business or project, you face a number of dangers:

- **Dry up creatively**

Creativity is born of interaction. Being consistently creative on your own is hard. The best ideas come from people brainstorming together and from one great idea leading to another. Without someone to bounce ideas around with, your business or project will lack a creative spark.

- **Lose confidence**

Over time we can lose confidence in our abilities or our business. This is especially true when we make mistakes and things go wrong. Without someone to encourage and reassure us, we can begin to second-guess our decisions.

- **Become over-confident**

While some suffer from a lack of confidence, others are over-confident and need to be challenged and questioned. This is a trait I suffer from; I would happily dive headlong into disaster if my fellow directors did not constantly question my ideas. Without people like this, moving your business in entirely the wrong direction would be too easy.

- **Reach the limit of your knowledge**

We can't all be experts at everything, and yet running a website and a business requires a broad range of skills. When working in isolation and tackling problems beyond your comfort zone, you can easily reach the limit of your expertise and flounder.

- **Have a blinkered perspective**

Another problem with working alone is that you have only a single perspective on your work. By adding another set of eyes to your problems, you gain a broader vision and can approach your challenges from a different angle.

- **Feel overwhelmed**

Running a business or a business-critical website can feel like a burden. You are often required to make big decisions, particularly with hiring and expenditures. Making these decisions alone is a big responsibility and can be really scary. Having someone to share that with would make a big difference.

So, can you identify with any of these traps? If not, then I suggest you read the one about over-confidence again! I don't believe a single website owner or entrepreneur couldn't benefit from an outside perspective.

The question, then, is how do you find someone?

Getting An Outside Perspective

The most obvious solution is to partner with somebody at the outset. Whether you work with someone on a website or form a business with an associate, partnerships can be very beneficial. This is what I did with our company, and I haven't regretted it for a minute. I would be lost without my two co-founders, Chris and Marcus.

That said, I know that not everyone's experiences with partners have been rosy. Also, by the time you read this, the opportunity for this kind of partnership may have already passed.

What can you do then? What other options are available to those seeking an outside perspective and someone to bounce ideas around with?

Here are some options:

- **Sleeping partner**

This is the approach we took. We have a non-executive director named Brian who works with a number of companies and keeps us on our toes. He has a radically different view of business and constantly challenges us. In return, he has a small stake in the business. He is worth every penny.

- **Paid consultant**

If you don't fancy having someone so entrenched in your business, why not consider an external consultant with whom you could speak on an ongoing basis? Admittedly, this kind of consultant can be pricey, but they do bring an outside perspective to the table.

- **Mentor**

Another option is to approach a Web designer or website owner you admire and ask them to mentor you. Obviously, these people are probably busy with their own work, but if you are willing to pay for their time, you might get some valuable advice. You'll usually need only an hour per month to stay on the right track.

- **Buddy**

A buddy would be a cheaper option, someone in a situation similar to yours. The two of you could agree to chat regularly and share the challenges you face as business or website owners, discussing different approaches and ideas.

- **Community**

Yet another option would be to look not for a consultant, mentor or buddy, but for a supportive online community. Loads are around, but make sure the one you join is not too big. You want people to remember you and your circumstances.

Whatever you decide is entirely up to you. The point is, if you want to realize the potential of your website or business, you need the help and encouragement of others. Humans by nature work best in groups, and you are no exception. We are not meant to do it alone!

Making Your Mark on the Web Is Easier than You Think

By Christian Heilmann, July 2nd, 2010

We who work on the Web live in wonderful times. In the past, we did a lot of trial-and-error learning, and the biggest hurdle was getting people to understand what we were on about. Over time, companies like Google, Yahoo, Skype, Facebook and Twitter managed to get the geeky Web into the living rooms of regular people and into the headlines of the mainstream press.

Now more than ever there are opportunities on the Web for you, as a professional, to be seen and to be found. I am a professional Web spokesperson for a large company, and I spoke at 27 conferences in 14 countries last year. I write for several magazines and blogs and have published a few books. When people ask me how I got to where I am now, my standard answer is: by releasing stuff on the Web and by listening and reacting to feedback. And you can do the same.

There are numerous ways to become known on the Web (or at least to reach out to like-minded people):

- **Use social networking tools.**

This is where the people are.

- **Write a (micro) blog.**

Even if it's just a scratch pad for your thoughts. This is how mine started.

- **Attend unconferences.**

Everyone who goes is already a presenter, which makes it easy to begin.

- **Attend and speak at conferences.**

Even if it means just asking questions. Conferences are where people find you.

- **Partner and build alliances.**

If you can't do everything on your own, find someone who completes the set of skills needed.

- **Comment on other people's work.**

People will find you inspiring if you ask the right questions.

- **Build on other people's work.**

Can something do almost exactly what you need but not quite? And it's open source? Fix it for your specific purposes and release it for others who have the same needs.

- **Release free code, designs or templates.**

Nothing gets you noticed more than giving out goodies.

- **Listen and prioritize.**

We already have information overload on the Web; you can be a curator.

Let's discuss the practical applications of each point.

Use Social Networking Tools

Social networks have the unsurprising yet beneficial feature of being social: you can actually meet people who share the same interests as you. You might stumble over one or another expert who you'd never reach by email

or by contacting them through their blog. I, for example, am happy to answer a quick tweet — and maybe even use it as inspiration for a blog post — but I find myself unable, unfortunately, to answer long emails that bring up a lot of issues from people asking me to fix their code.

Social networks are great for sharing successes and ideas. Upload sketches of your products to Flickr, share an office outing on Facebook (only the photos you could show your mother, of course) or create a screencast of some of your tricks and upload them to YouTube. Whatever you put out there can potentially be sent onward by millions of people. If your productions can be found only on your website, most people won't ever see them.

Be yourself on social networks. Write a truthful bio and list your name, location, interests and other ways to find you on the Web. I get a lot of traffic from my Twitter profile and that wouldn't be the case if I just had a cartoon dog there and didn't list my name.

Write a (Micro) Blog

On a blog, you can quickly share thoughts, finds, photos, anything. Not every blog has to be the refined and inspiring output of a Web expert. In the same way, a blog should not become an endless stream of boring anecdotes (like sharing the joys of having bought a new doormat this morning). My own blog, wait-till-i.com, has always been a personal scratch pad if nothing else. If I manage to code something that has always annoyed me in a new way, I'll write a quick post. If I find someone else who has written something cool, I do the same and give my commentary on it.

Keep in mind that if you host yourself, you'll have to update regularly and battle spam. If all you want is to jot down interesting things from time to time, just use a service like [Tumblr](#), [Soup.io](#) or hosted [WordPress](#).

A lot of people fall into the trap of using their blog as a playground: they try out every cool CSS trick and design idea they've ever had and redesign it every three weeks. This is tempting, but this kind of fame is fleeting; months down the line, you'll probably realize that falling short on content was a mistake. My blog looks minimal indeed, and I do everything one could possibly do wrong in terms of SEO, but it still had a Google Page Rank of 8, and I made good money with ads. I wrote about interesting things and people linked to my blog. If your content is interesting, your blog will show up in RSS readers and in people's updates in social networks or shared bookmarks. You need good, sensible titles and well-structured content. Looks are not that important.

Staying up to date is important. Don't write treaties and novels; instead, update often and regularly, and you will have a crowd of followers in no time.

Attend Unconferences

Unconferences (including BarCamp and others like it) are wonderful forums for practicing your public speaking. The cool thing about BarCamps is that everyone who goes has to give a presentation, host a discussion round or do something similar — it won't just be you up there.

This can be a huge opportunity to speak to people and get a sense of what works for them and what doesn't. There is no such thing as a failed talk at a BarCamp — just ones that work well and others that are less interesting. Nobody pays to see you, so nothing can be a major disappointment; and

because everyone has to speak, there is no incentive to harshly criticize others. There is just no showing off.

If you get a chance to help organize a BarCamp, even better; you'll get to network early on. Organizing events takes all kinds of people, not just hard-core developers and rock star designers.

Attend and Speak at Conferences

Attend conferences whenever you can. They are priceless opportunities to network and to get to know people who you read about "in the flesh." It's a great feeling to ask a question of someone you've learned from and respect, and it shows them their work is appreciated.

Don't get bogged down taking notes; that's the job of the organizers. Instead, chat a lot, give out cards or — even better — swap Twitter handles. Go with the flow of the conference; if it's time for beer, then it's time for beer and chatter, not time to discuss highly technical matters.

Use the time during the talks and after the conference to your advantage: tweet about the talks and what you liked about them using the official hash tag, and publish a "Conference XYZ in my view" blog post as soon as possible. Immediately after a conference, there is much discussion among those who attended, but sometimes even more among those who didn't. You could be the person who tells the latter group what they missed, and they just might remember you for it.

Keep your eyes peeled for chances to submit proposals for conferences. Clever conference organizers offer a "B" track — alternatives to the main speakers — and that could be your chance to get a foot in the door. There is always a need for fresh speakers, so don't be shy.

Partner and Build Alliances

If you want to crack a certain problem but you're not sure exactly how to do it, put it out as a question. A designer and a developer working together on a demo product or article is always better than a single person trying to do everything (and feeling out of their element). Duos can be highly successful, and even if the team is formed just for a one-off, collaboration lets you deliver products while getting to know the working styles of others.

Another useful way to collaborate is to form working groups. The WaSP task forces, for example, work that way and have been immensely successful. Other developers come together under local banners, which can bring collective fame to all involved. The UK-based Britpack is an example of that, as are the Multipack or the Webkrauts in Germany.

Organize some local meet-ups and go from there. This will help you meet like-minded people, and it will help them get to know you.

Comment on the Work of Others

Leaving comments on blog posts is a great way to become known, especially when you leave articulate comments that add to the conversation or explain the subject matter further. There's no point posting if you're going to suck up or divert the discussion. And there are enough comments that propose solutions to CSS problems. ("Just use jQuery. Worked for me.")

Mull over the content of the post and try to think beyond it. Decent comments include:

- "Great article. You can see that in action at XYZ."

-
- “Would that also work as a solution to the problem we see at XYZ?”
 - “ABC had a similar solution at XYZ, but it lacked feature X, which this solution fixes.”

You get the idea: show people other resources that back up the current solution, or point out problems in the proposed solution that need fixing and build your own.

You could also leave comments that verify or disagree with other comments that have stirred discussion. Being known as someone who prevents flame-wars or steers them to more productive channels is a good thing.

Build on the Work of Others

The wonderful thing about Web development these days is that you can easily build on what other people have done. A lot of hard work gets released as source code or as Creative Commons content.

Instead of writing your own solutions to solve problems that other people have nearly solved, extend their work to do the one thing it's missing on your terms. Why not extend someone else's ideas and localize them to your market? This could entail translating and changing some features (removing those that don't apply and adding those that are needed), but it's probably worth it. When the Yahoo User Interface Library team created its *fonts.css* file, it found 12px Arial to be a great readable baseline for Web typography. The Yahoo team in Hong Kong found that 12px Chinese glyphs were too small to read, so they adapted. The YUI team — based in Sunnyvale, California — would never have encountered this issue themselves, so having a local team fix it and feed back the information helped everybody involved.

There is no shame in using other people's work. All you need to do is learn what it does and then make it better. Understanding the work you're building on is important; if you leave everything to magic and your extensions break later, your reputation will be tarnished — especially if you can't explain why it happened.

One problem I encountered when I released some code was that I omitted functionality that was flashy but inaccessible; people started overriding my code to make the solution flashy again. My advice, then, is: before you "fix" code, read the documentation and consider the rationale behind its structure and functionality. The original author probably had good reason to do what he or she did. Using open-source resources is as much about respecting the authors as it is about making your work easier.

Release Free Code, Designs or Templates

Once you've seen how easy it is to create great products by building on the skills and research of others, take part: release your products and let others have a go. This is the beauty of the Creative Commons Share-Alike License: you give stuff out but people have to mention you, and they are allowed to release your content only under the same terms and conditions.

So, go ahead: upload your code to GitHub or Google Code; put your photos on Flickr; put your designs and templates on showcase websites like deviantART. By doing this, you reach people where they already hang out, rather than hoping for them to stumble across your work by chance. Most of my contracts for paid work have come from people who found and were impressed by free things that I released.

Listen and Prioritize

A lot of content is on the Web, and keeping up to date on current happenings can be a full-time job. So, even if you don't want to add to the already buzzing stream of information, you can make your mark by being a good content curator or librarian.

Librarians rock. They don't know the content of all the books in the library, but they know exactly where everything is and can give you what you need in seconds. You could be that person.

Maintain a good number of RSS feeds, and bookmark them with clear simple notes and proper tags. Use social bookmarking to do the same with content that doesn't come via RSS feeds. I follow a few people who do nothing but this and they do a splendid job.

One very successful feature of my blog is my "[Things that made me happy this morning](#)" column. In it, I list links that I found in my RSS reader and got me excited or prompted a chuckle. I do the same on the official Yahoo Developer Network blog with the Tech Thursday feature. None of this takes much time because I check a lot of websites daily anyway — but I do take time to put them in a list and write a few words about each. It helps me organize my bookmarks, and the world thanks me for it.

Summary

These are just a few ideas you can use to get yourself noticed on the Web. Most are free or fairly inexpensive, so before you spend a lot of money on a social media expert or SEO consultant, have a go on your own. Before you know it, you'll find yourself enjoying being a known Web citizen.

Responsive Web Design: What It Is and How to Use It

By Kayla Knight, January 12th, 2011

Almost every new client these days wants a mobile version of their website. It's practically essential after all: one design for the BlackBerry, another for the iPhone, the iPad, netbook, Kindle — and all screen resolutions must be compatible, too. In the next five years, we'll likely need to design for a number of additional inventions. When will the madness stop? It won't, of course.

In the field of Web design and development, we're quickly getting to the point of being unable to keep up with the endless new resolutions and devices. For many websites, creating a website version for each resolution and new device would be impossible, or at least impractical. Should we just suffer the consequences of losing visitors from one device, for the benefit of gaining visitors from another? Or is there another option?

Responsive Web design is the approach that suggests that design and development should respond to the user's behavior and environment based on screen size, platform and orientation. The practice consists of a mix of flexible grids and layouts, images and an intelligent use of CSS media queries. As the user switches from their laptop to iPad, the website should automatically switch to accommodate for resolution, image size and scripting abilities. In other words, the website should have the technology to automatically *respond* to the user's preferences. This would eliminate the need for a different design and development phase for each new gadget on the market.

The Concept Of Responsive Web Design

[Ethan Marcotte](#) wrote an introductory article about the approach, "[Responsive Web Design](#)," for A List Apart. It stems from the notion of responsive architectural design, whereby a room or space automatically adjusts to the number and flow of people within it:

"Recently, an emergent discipline called "responsive architecture" has begun asking how physical spaces can respond to the presence of people passing through them. Through a combination of embedded robotics and tensile materials, architects are experimenting with art installations and wall structures that bend, flex, and expand as crowds approach them. Motion sensors can be paired with climate control systems to adjust a room's temperature and ambient lighting as it fills with people. Companies have already produced "smart glass technology" that can automatically become opaque when a room's occupants reach a certain density threshold, giving them an additional layer of privacy."

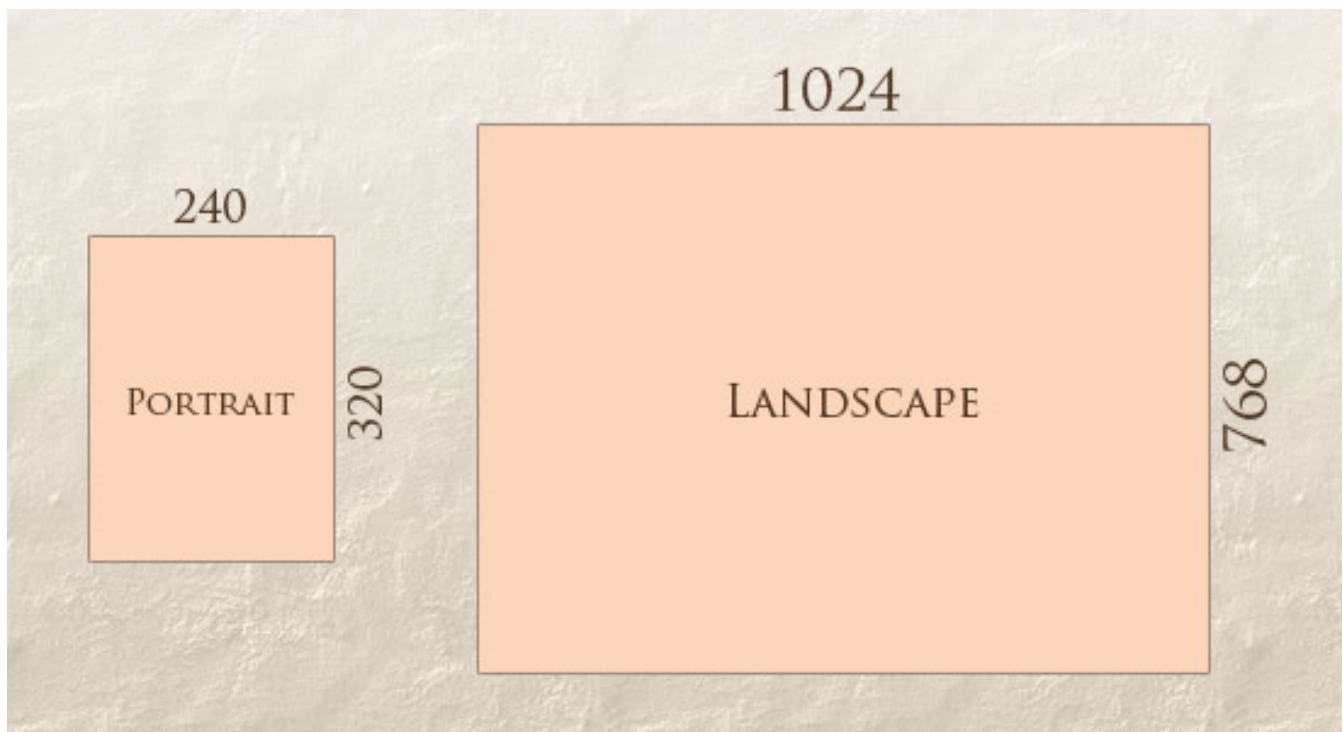
Transplant this discipline onto Web design, and we have a similar yet whole new idea. Why should we create a custom Web design for each group of users; after all, architects don't design another building for each group size and type that passes through it? Like responsive architecture, Web design should automatically adjust. It shouldn't require countless custom-made solutions for each new category of users.

Obviously, we can't use motion sensors and robotics to accomplish this the way a building would. Responsive Web design requires a more abstract way of thinking. However, some ideas are already being practiced: fluid layouts, media queries and scripts that can reformat Web pages and mark-up effortlessly (or *automatically*).

But responsive Web design is not only about adjustable screen resolutions and automatically resizable images, but rather about a whole new way of thinking about design. Let's talk about all of these features, plus additional ideas in the making.

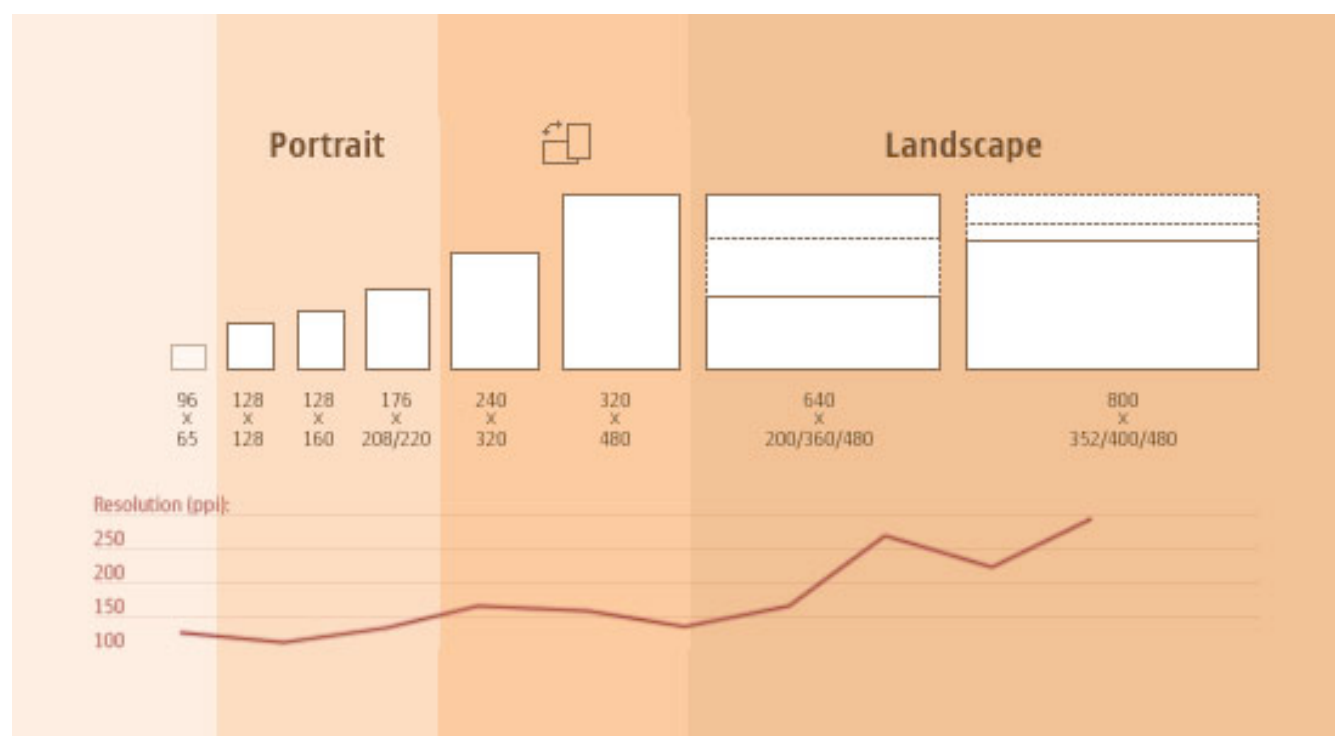
Adjusting Screen Resolution

With more devices come varying screen resolutions, definitions and orientations. New devices with new screen sizes are being developed every day, and each of these devices may be able to handle variations in size, functionality and even color. Some are in landscape, others in portrait, still others even completely square. As we know from the rising popularity of the iPhone, iPad and advanced smartphones, many new devices are able to switch from portrait to landscape at the user's whim. How is one to design for these situations?



In addition to designing for both landscape and portrait (and enabling those orientations to possibly switch in an instant upon page load), we must consider the hundreds of different screen sizes. Yes, it is possible to group them into major categories, design for each of them, and make each design as flexible as necessary. But that can be overwhelming, and who knows what the usage figures will be in five years? Besides, many users do not maximize their browsers, which itself leaves far too much room for variety among screen sizes.

Morten Hjerde and a few of his colleagues [identified statistics on about 400 devices](#) sold between 2005 and 2008. Below are some of the most common:



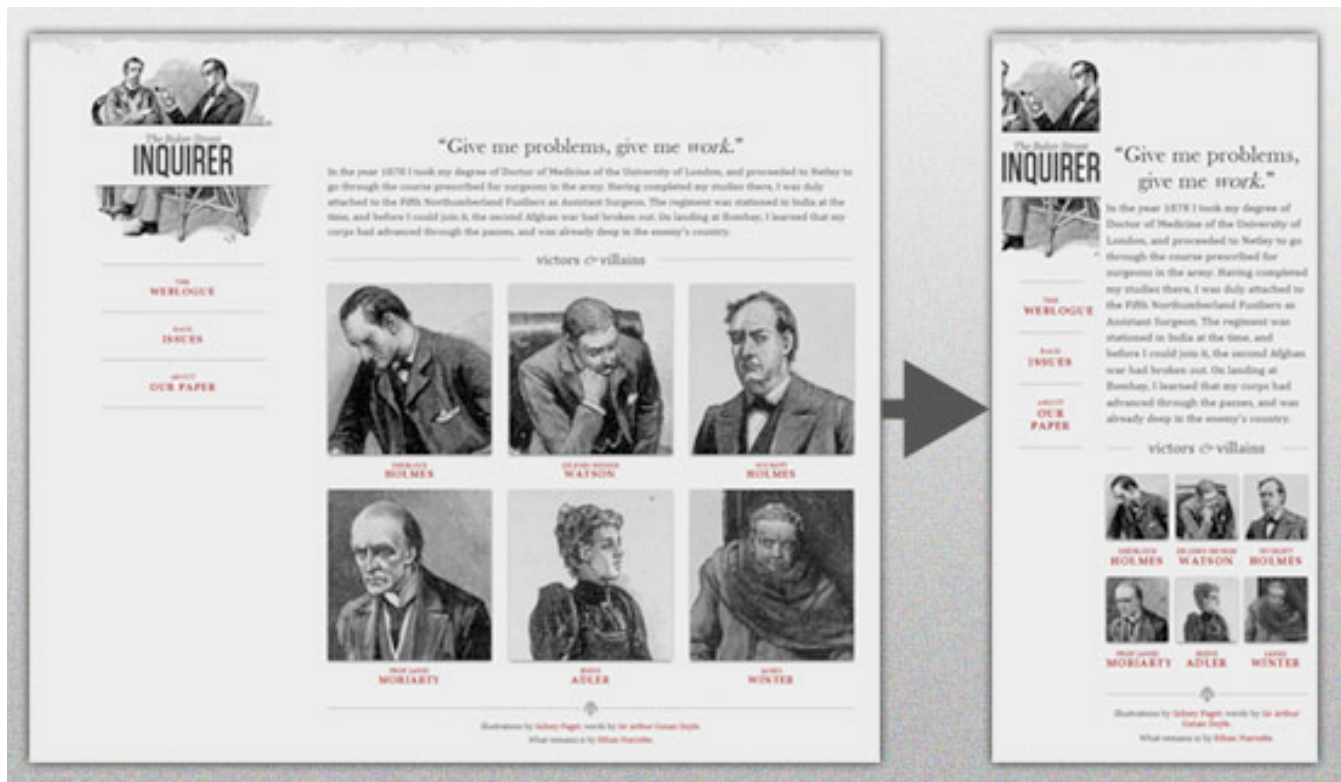
Since then even [more devices have come out](#). It's obvious that we can't keep creating custom solutions for each one. So, how do we deal with the situation?

Part of the Solution: Flexible Everything

A few years ago, when flexible layouts were almost a "luxury" for websites, the only things that were flexible in a design were the layout columns (structural elements) and the text. Images could easily break layouts, and even flexible structural elements broke a layout's form when pushed enough. Flexible designs weren't really that flexible; they could give or take a few hundred pixels, but they often couldn't adjust from a large computer screen to a netbook.

Now we can make things more flexible. Images can be automatically adjusted, and we have workarounds so that layouts never break (although they may become squished and illegible in the process). While it's not a complete fix, the solution gives us far more options. It's perfect for devices that switch from portrait orientation to landscape in an instant or for when users switch from a large computer screen to an iPad.

In Ethan Marcotte's article, he created a sample Web design that features this better flexible layout:



www.alistapart.com

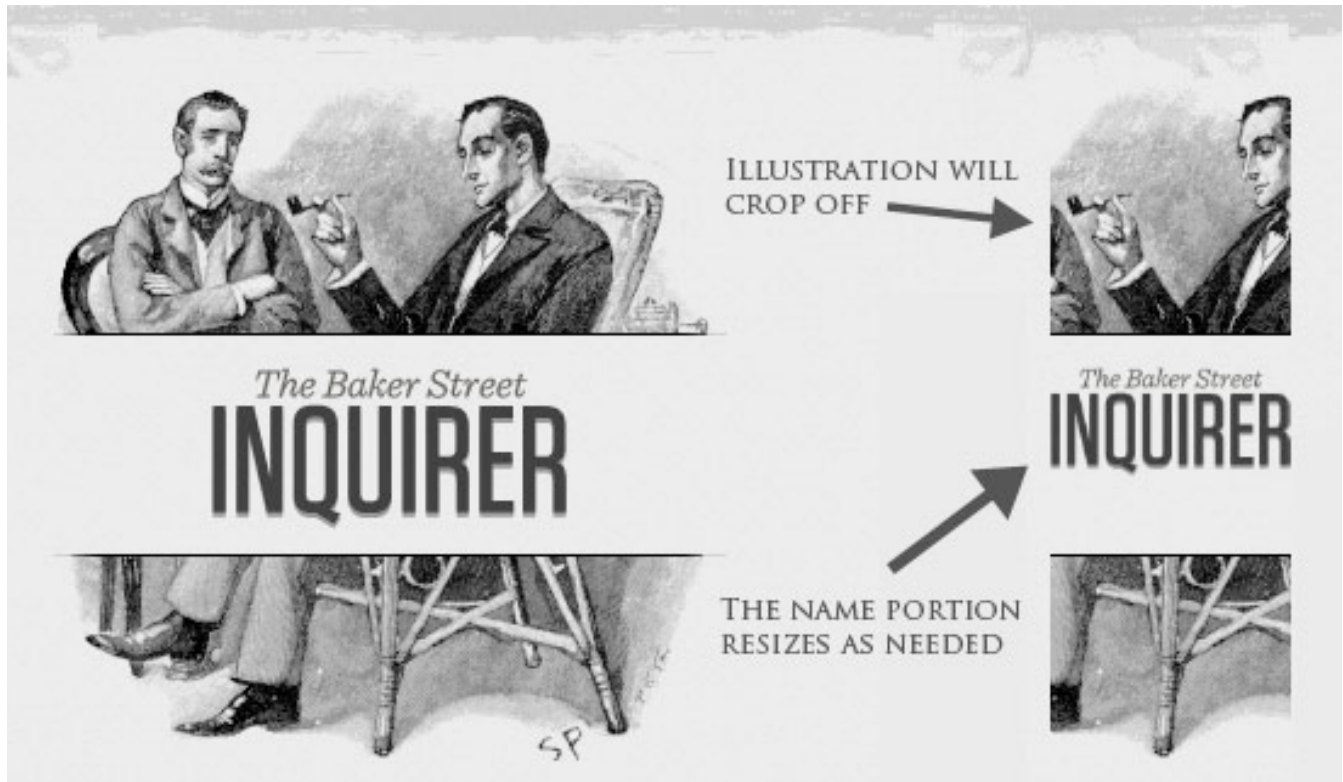
The entire design is a lovely mix of [fluid grids](#), [fluid images](#) and smart mark-up where needed. Creating fluid grids is fairly common practice, and there are a number of techniques for creating fluid images:

- [Hiding and Revealing Portions of Images](#)
- [Creating Sliding Composite Images](#)
- [Foreground Images That Scale With the Layout](#)

For more information on creating fluid websites, be sure to look at the book "Flexible Web Design: Creating Liquid and Elastic Layouts with CSS" by Zoe Mickley Gillenwater, and download the sample chapter "[Creating Flexible Images](#)." In addition, Zoe provides the following extensive list of

tutorials, resources, inspiration and best practices on creating flexible grids and layouts: “[Essential Resources for Creating Liquid and Elastic Layouts](#).”

While from a technical perspective this is all easily possible, it’s not just about plugging these features in and being done. Look at the logo in this design, for example:



www.alistapart.com

If resized too small, the image would appear to be of low quality, but keeping the name of the website visible and not cropping it off was important. So, the image is divided into two: one (of the illustration) set as a background, to be cropped and to maintain its size, and the other (of the name) resized proportionally.

```
1 | <h1 id="logo"><a href="#"></a></h1>
```

Above, the `h1` element holds the illustration as a background, and the image is aligned according to the container's background (the heading).

This is just one example of the kind of thinking that makes responsive Web design truly effective. But even with smart fixes like this, a layout can become too narrow or short to look right. In the logo example above (although it works), the ideal situation would be to not crop half of the illustration or to keep the logo from being so small that it becomes illegible and "floats" up.

Flexible Images

One major problem that needs to be solved with responsive Web design is working with images. There are a number of techniques to resize images proportionately, and many are easily done. The most popular option, noted in Ethan Marcotte's article on [fluid images](#) but first experimented with by [Richard Rutter](#), is to use CSS's `max-width` for an easy fix.

```
1 | img { max-width: 100%; }
```

As long as no other width-based image styles override this rule, every image will load in its original size, unless the viewing area becomes narrower than the image's original width. The maximum width of the image is set to 100% of the screen or browser width, so when that 100% becomes narrower, so does the image. Essentially, as Jason Grigsby [noted](#):

"The idea behind fluid images is that you deliver images at the maximum size they will be used at. You don't declare the height and width in your code, but instead let the browser resize the images as

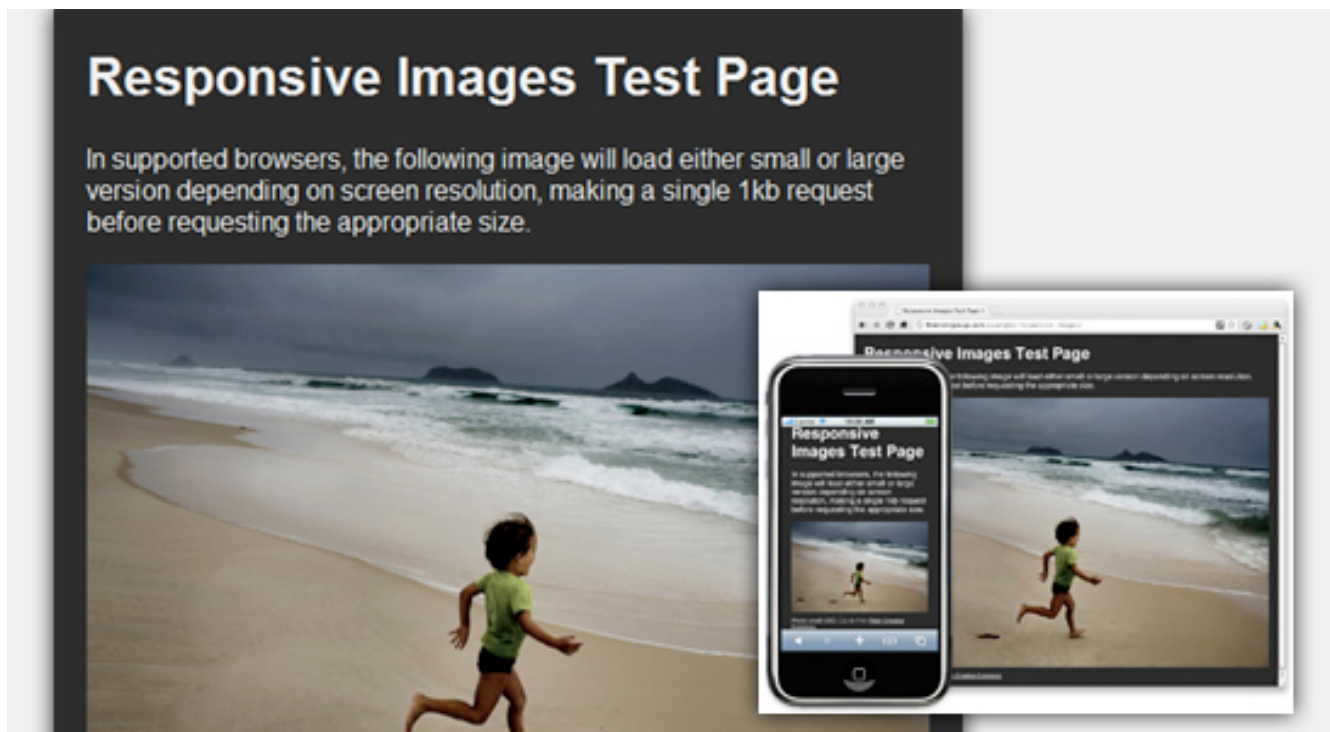
needed while using CSS to guide their relative size." It's a great and simple technique to resize images beautifully.

Note that `max-width` is not supported in IE, but a good use of `width: 100%` would solve the problem neatly in an IE-specific style sheet. One more issue is that when an image is resized too small in some older browsers in Windows, the rendering isn't as clear as it ought to be. There is a JavaScript to fix this issue, though, found in [Ethan Marcotte's article](#).

While the above is a great quick fix and good start to responsive images, image resolution and download times should be the primary considerations. While resizing an image for mobile devices can be very simple, if the original image size is meant for large devices, it could significantly slow download times and take up space unnecessarily.

Filament Group's Responsive Images

This technique, presented by the Filament Group, takes this issue into consideration and not only resizes images proportionately, but shrinks image resolution on smaller devices, so very large images don't waste space unnecessarily on small screens. Check out [the demo page here](#).



filamentgroup.com

This technique requires a few files, all of which are available on [Github](#). First, a JavaScript file (*rwd-images.js*), the *.htaccess* file and an image file (*rwd.gif*). Then, we can use just a bit of HTML to reference both the larger and smaller resolution images: first, the small image, with a *.r* prefix to clarify that it should be responsive, and then a reference to the bigger image using `data-fullsrc`.

```
1 | 
```

The `data-fullsrc` is a custom HTML5 attribute, defined in the files linked to above. For any screen that is wider than 480 pixels, the larger-resolution image (*largeRes.jpg*) will load; smaller screens wouldn't need to load the bigger image, and so the smaller image (*smallRes.jpg*) will load.

The JavaScript file inserts a base element that allows the page to separate responsive images from others and redirects them as necessary. When the page loads, all files are rewritten to their original forms, and only the large or small images are loaded as necessary. With other techniques, all higher-resolution images would have had to be downloaded, even if the larger versions would never be used. Particularly for websites with a lot of images, this technique can be a great saver of bandwidth and loading time.

This technique is fully supported in modern browsers, such as IE8+, Safari, Chrome and Opera, as well as mobile devices that use these same browsers (iPad, iPhone, etc.). Older browsers and Firefox degrade nicely and still resize as one would expect of a responsive image, except that both resolutions are downloaded together, so the end benefit of saving space with this technique is void.

Stop iPhone Simulator Image Resizing

One nice thing about the iPhone and iPod Touch is that Web designs automatically rescale to fit the tiny screen. A full-sized design, unless specified otherwise, would just shrink proportionally for the tiny browser, with no need for scrolling or a mobile version. Then, the user could easily zoom in and out as necessary.

There was, however, one issue this simulator created. When responsive Web design took off, many noticed that images were still changing proportionally with the page even if they were specifically made for (or could otherwise fit) the tiny screen. This in turn scaled down text and other elements.

Because this works only with Apple's simulator, we can use an Apple-specific meta tag to fix the problem, placing it *below* the website's `<head>`

section. Thanks to [Think Vitamin's article on image resizing](#), we have the meta tag below:

```
1 <meta name="viewport" content="width=device-width;  
  initial-scale=1.0">
```

Setting the `initial-scale` to 1 overrides the default to resize images proportionally, while leaving them as is if their width is the same as the device's width (in either portrait or landscape mode). Apple's documentation has a lot more information on the [viewport meta tag](#).

Custom Layout Structure

For extreme size changes, we may want to change the layout altogether, either through a separate style sheet or, more efficiently, through a CSS media query. This does not have to be troublesome; most of the styles can remain the same, while specific style sheets can inherit these styles and move elements around with floats, widths, heights and so on.

For example, we could have one main style sheet (which would also be the default) that would define all of the main structural elements, such as `#wrapper`, `#content`, `#sidebar`, `#nav`, along with colors, backgrounds and typography. Default flexible widths and floats could also be defined.

If a style sheet made the layout too narrow, short, wide or tall, we could then detect that and switch to a new style sheet. This new child style sheet would adopt everything from the default style sheet and then just redefine the layout's structure.

Here is the ***style.css (default) content***:

```
1  /* Default styles that will carry to the child style
   sheet */
2
3  html,body{
4    background...
5    font...
6    color...
7  }
8
9  h1,h2,h3{}
10 p, blockquote, pre, code, ol, ul{}
11
12 /* Structural elements */
13 #wrapper{
14     width: 80%;
15     margin: 0 auto;
16
17     background: #fff;
18     padding: 20px;
19 }
20
21 #content{
22     width: 54%;
23     float: left;
24     margin-right: 3%;
25 }
26
27 #sidebar-left{
28     width: 20%;
29     float: left;
30     margin-right: 3%;
```

```
31 }
32
33 #sidebar-right{
34     width: 20%;
35     float: left;
36 }
```

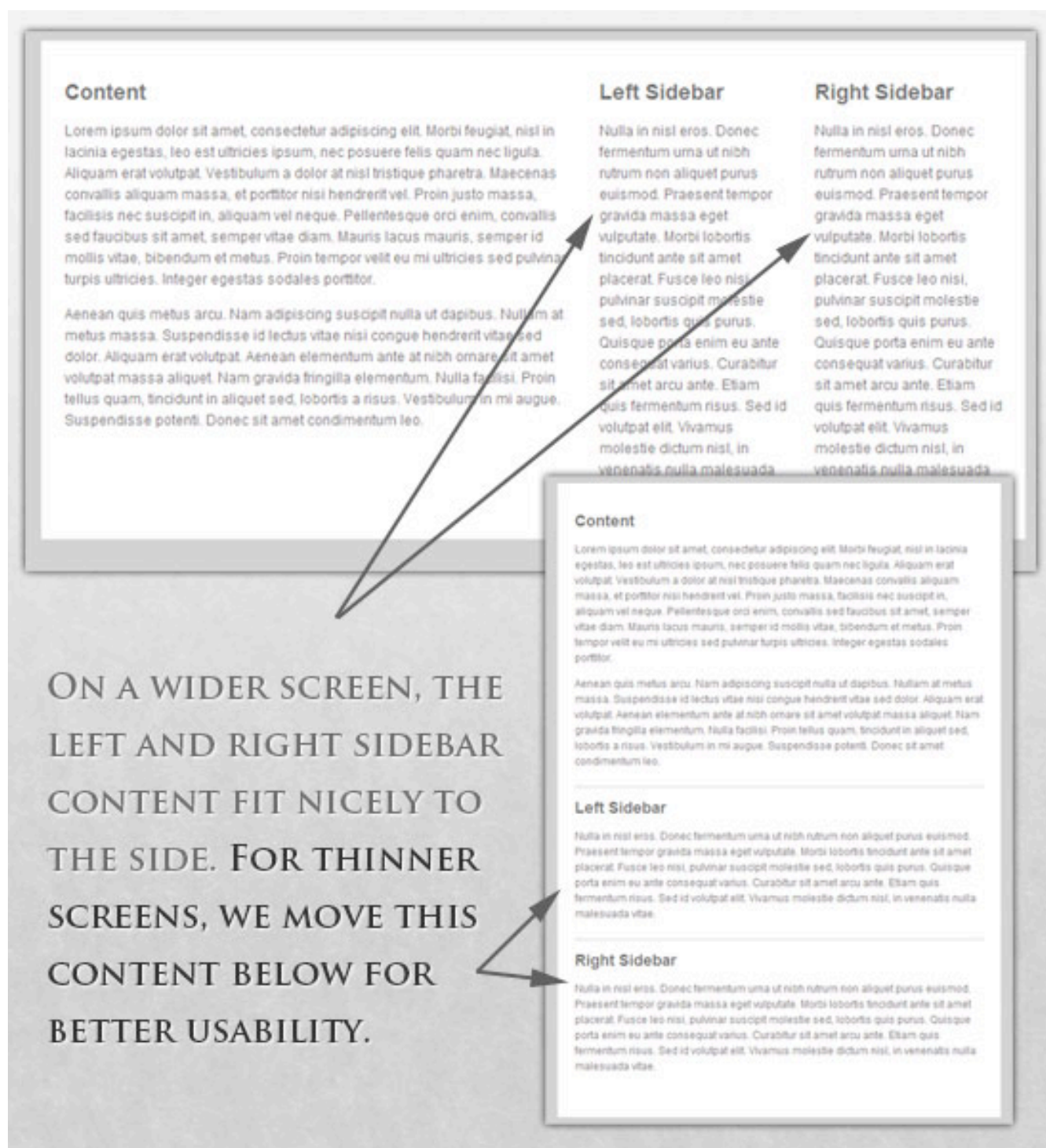
Here is the ***mobile.css*** (child) content:

```
1 #wrapper{
2     width: 90%;
3 }
4
5 #content{
6     width: 100%;
7 }
8
9 #sidebar-left{
10     width: 100%;
11     clear: both;
12
13     /* Additional styling for our new layout */
14     border-top: 1px solid #ccc;
15     margin-top: 20px;
16 }
17
18 #sidebar-right{
19     width: 100%;
20     clear: both;
21
22     /* Additional styling for our new layout */
```

```

23 border-top: 1px solid #ccc;
24 margin-top: 20px;
25 }

```



Media Queries

CSS3 supports all of the same media types as CSS 2.1, such as `screen`, `print` and `handheld`, but has added dozens of new media features, including `max-width`, `device-width`, `orientation` and `color`. New devices made after the release of CSS3 (such as the iPad and Android devices) will definitely support media features. So, calling a media query using CSS3 features to target these devices would work just fine, and it will be ignored if accessed by an older computer browser that does not support CSS3.

In Ethan Marcotte's article, we see an example of a media query in action:

```
1 <link rel="stylesheet" type="text/css"  
2   media="screen and (max-device-width: 480px)"  
3   href="shetland.css" />
```

This media query is fairly self-explanatory: if the browser displays this page on a screen (rather than print, etc.), and if the width of the screen (not necessarily the viewport) is 480 pixels or less, then load *shetland.css*.

New CSS3 features also include `orientation` (portrait vs. landscape), `device-width`, `min-device-width` and more. Look at "[The Orientation Media Query](#)" for more information on setting and restricting widths based on these media query features.

One can create multiple style sheets, as well as basic layout alterations defined to fit ranges of widths — even for landscape vs. portrait orientations. Be sure to look at the section of Ethan Marcotte's article entitled "[Meet the media query](#)" for more examples and a more thorough explanation.

Multiple media queries can also be dropped right into a single style sheet, which is the most efficient option when used:

```
1 /* Smartphones (portrait and landscape) ----- */
2 @media only screen
3 and (min-device-width : 320px)
4 and (max-device-width : 480px) {
5   /* Styles */
6 }
7
8 /* Smartphones (landscape) ----- */
9 @media only screen
10 and (min-width : 321px) {
11   /* Styles */
12 }
13
14 /* Smartphones (portrait) ----- */
15 @media only screen
16 and (max-width : 320px) {
17   /* Styles */
18 }
```

The code above is from a free template for multiple media queries between popular devices by Andy Clark. See the differences between this approach and including different style sheet files in the mark-up as shown in the post [“Hardboiled CSS3 Media Queries.”](#)

CSS3 Media Queries

Above are a few examples of how media queries, both from CSS 2.1 and CSS3 could work. Let's now look at some specific how-to's for using CSS3

media queries to create responsive Web designs. Many of these uses are relevant today, and all will definitely be usable in the near future.

The **min-width** and **max-width** properties do exactly what they suggest. The `min-width` property sets a minimum browser or screen width that a certain set of styles (or separate style sheet) would apply to. If anything is below this limit, the style sheet link or styles will be ignored. The `max-width` property does just the opposite. Anything above the maximum browser or screen width specified would not apply to the respective media query.

Note in the examples below that we're using the syntax for media queries that could be used all in one style sheet. As mentioned above, the most efficient way to use media queries is to place them all in one CSS style sheet, with the rest of the styles for the website. This way, multiple requests don't have to be made for multiple style sheets.

```
1 @media screen and (min-width: 600px) {  
2     .hereIsMyClass {  
3         width: 30%;  
4         float: right;  
5     }  
6 }
```

The class specified in the media query above (`hereIsMyClass`) will work only if the browser or screen width is above 600 pixels. In other words, this media query will run only if the **minimum width is 600 pixels** (therefore, 600 pixels or wider).

```
1 @media screen and (max-width: 600px) {  
2     .aClassforSmallScreens {  
3         clear: both;  
4     }  
5 }
```

```
4     font-size: 1.3em;
5 }
6 }
```

Now, with the use of `max-width`, this media query will apply only to browser or screen widths with a maximum width of 600 pixels or narrower.

While the above `min-width` and `max-width` can apply to either screen size or browser width, sometimes we'd like a media query that is relevant to device width specifically. This means that even if a browser or other viewing area is minimized to something smaller, the media query would still apply to the size of the actual device. The **min-device-width** and **max-device-width** media query properties are great for targeting certain devices with set dimensions, without applying the same styles to other screen sizes in a browser that mimics the device's size.

```
1 @media screen and (max-device-width: 480px) {
2     .classForiPhoneDisplay {
3         font-size: 1.2em;
4     }
5 }
```

```
1 @media screen and (min-device-width: 768px) {
2     .minimumiPadWidth {
3         clear: both;
4         margin-bottom: 2px solid #ccc;
5     }
6 }
```

There are also other tricks with media queries to target specific devices. Thomas Maier has written two short snippets and explanations for targeting the iPhone and iPad only:

-
- [CSS for iPhone 4 \(Retina display\)](#)
 - [How To: CSS for the iPad](#)

For the iPad specifically, there is also a media query property called **orientation**. The value can be either landscape (horizontal orientation) or portrait (vertical orientation).

```
1 @media screen and (orientation: landscape) {  
2   .iPadLandscape {  
3     width: 30%;  
4     float: right;  
5   }  
6 }
```

```
1 @media screen and (orientation: portrait) {  
2   .iPadPortrait {  
3     clear: both;  
4   }  
5 }
```

Unfortunately, this property works only on the iPad. When [determining the orientation for the iPhone](#) and other devices, the use of `max-device-width` and `min-device-width` should do the trick.

There are also many media queries that make sense when combined. For example, the `min-width` and `max-width` media queries are combined all the time to set a style specific to a certain range.

```
1 @media screen and (min-width: 800px) and (max-width:
  1200px) {
2   .classForaMediumScreen {
3     background: #cc0000;
4     width: 30%;
5     float: right;
6   }
7 }
```

The above code in this media query applies only to screen and browser widths between 800 and 1200 pixels. A good use of this technique is to show certain content or entire sidebars in a layout depending on how much horizontal space is available.

Some designers would also prefer to link to a separate style sheet for certain media queries, which is perfectly fine if the organizational benefits outweigh the efficiency lost. For devices that do not switch orientation or for screens whose browser width cannot be changed manually, using a separate style sheet should be fine.

You might want, for example, to place media queries all in one style sheet (as above) for devices like the iPad. Because such a device can switch from portrait to landscape in an instant, if these two media queries were placed in separate style sheets, the website would have to call each style sheet file every time the user switched orientations. Placing a media query for both the horizontal and vertical orientations of the iPad in the same style sheet file would be far more efficient.

Another example is a flexible design meant for a standard computer screen with a resizable browser. If the browser can be manually resized, placing all variable media queries in one style sheet would be best.

Nevertheless, organization can be key, and a designer may wish to define media queries in a standard HTML link tag:

```
1 <link rel="stylesheet" media="screen and (max-width:
  600px)" href="small.css" />
2 <link rel="stylesheet" media="screen and (min-width:
  600px)" href="large.css" />
3 <link rel="stylesheet" media="print"
  href="print.css" />
```

JavaScript

Another method that can be used is JavaScript, especially as a back-up to devices that don't support all of the CSS3 media query options. Fortunately, there is already a pre-made JavaScript library that makes older browsers (IE 5+, Firefox 1+, Safari 2) support CSS3 media queries. If you're already using these queries, just grab a copy of the library, and include it in the mark-up: [*css3-mediaqueries.js*](#).

In addition, below is a sample jQuery snippet that detects browser width and changes the style sheet accordingly — if one prefers a more hands-on approach:

```
1 <script type="text/javascript" src="http://
  ajax.googleapis.com/ajax/libs/jquery/1.4.4/jquery.min.js "></
  script>
2
3 <script type="text/javascript">
4   $(document).ready(function() {
5     $(window).bind("resize", resizeWindow);
6     function resizeWindow(e) {
```

```
7      var newWindowWidth = $(window).width();
8
9      // If width width is below 600px, switch to the
mobile stylesheet
10     if(newWindowWidth < 600){                                $
        ("link[rel=stylesheet]").attr({href :
        "mobile.css"});                                        } // Else if
width is above 600px, switch to the large stylesheet
else if(newWindowWidth > 600){
11         $("link[rel=stylesheet]").attr({href :
        "style.css"});
12     }
13 }
14 });
15 </script>
```

There are many solutions for pairing up JavaScript with CSS media queries. Remember that media queries are not an absolute answer, but rather are fantastic options for responsive Web design when it comes to pure CSS-based solutions. With the addition of JavaScript, we can accommodate far more variations. For detailed information on using JavaScript to mimic or work with media queries, look at "[Combining Media Queries and JavaScript](#)."

Showing or Hiding Content

It is possible to shrink things proportionally and rearrange elements as necessary to make everything fit (reasonably well) as a screen gets smaller. It's great that that's possible, but making every piece of content from a large screen available on a smaller screen or mobile device isn't always the

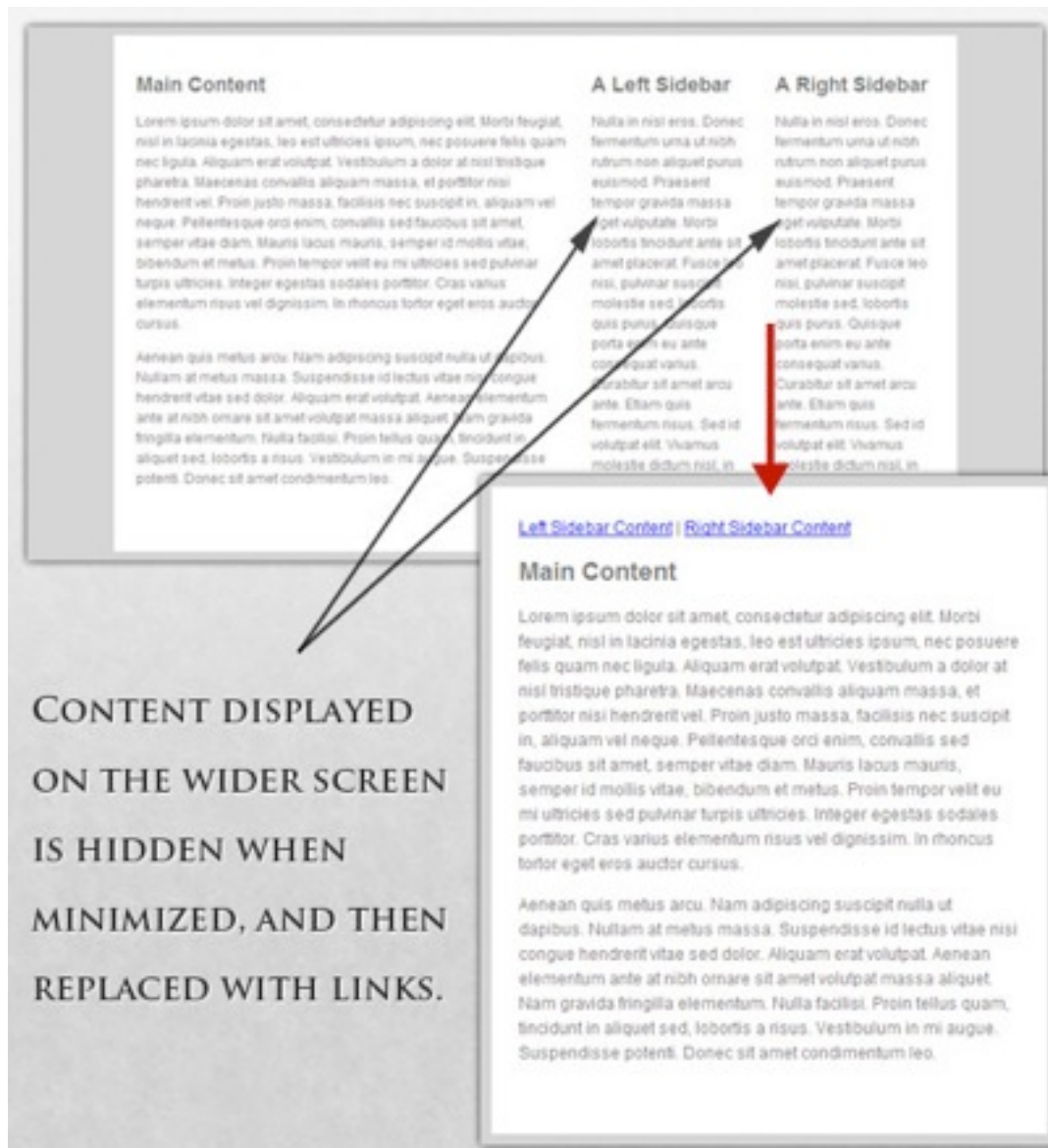
best answer. We have best practices for mobile environments: simpler navigation, more focused content, lists or rows instead of multiple columns.

Responsive Web design shouldn't be just about how to create a flexible layout on a wide range of platforms and screen sizes. It should also be about the user being able to pick and choose content. Fortunately, CSS has been allowing us to show and hide content with ease for years!

```
1 | display: none;
```

Either declare `display: none` for the HTML block element that needs to be hidden in a specific style sheet or detect the browser width and do it through JavaScript. In addition to hiding content on smaller screens, we can also hide content in our default style sheet (for bigger screens) that should be available only in mobile versions or on smaller devices. For example, as we hide major pieces of content, we could replace them with navigation to that content, or with a different navigation structure altogether.

Note that we haven't used `visibility: hidden` here; this just hides the content (although it is still there), whereas the `display` property gets rid of it altogether. For smaller devices, there is no need to keep the mark-up on the page — it just takes up resources and might even cause unnecessary scrolling or break the layout.



Here is **our mark-up**:

```
1 <p class="sidebar-nav"><a href="#">Left Sidebar
  Content</a> | <a href="#">Right Sidebar Content</a></
  p>
2
3 <div id="content">
4   <h2>Main Content</h2>
5 </div>
6
7 <div id="sidebar-left">
8   <h2>A Left Sidebar</h2>
9
10 </div>
11
12 <div id="sidebar-right">
13   <h2>A Right Sidebar</h2>
14 </div>
```

In our default style sheet below, we have hidden the links to the sidebar content. Because our screen is large enough, we can display this content on page load.

Here is the ***style.css* (default)** content:

```
1 #content{
2   width: 54%;
3   float: left;
4   margin-right: 3%;
5 }
6
7 #sidebar-left{
```

```
8   width: 20%;
9   float: left;
10  margin-right: 3%;
11 }
12
13 #sidebar-right{
14   width: 20%;
15   float: left;
16 }
17 .sidebar-nav{display: none;}
```

Now, we hide the two sidebars (below) and show the links to these pieces of content. As an alternative, the links could call to JavaScript to just cancel out the `display: none` when clicked, and the sidebars could be realigned in the CSS to float below the content (or in another reasonable way).

Here is the ***mobile.css (simpler)*** content:

```
1 #content{
2   width: 100%;
3 }
4
5 #sidebar-left{
6   display: none;
7 }
8
9 #sidebar-right{
10  display: none;
11 }
12 .sidebar-nav{display: inline;}
```

With the ability to easily show and hide content, rearrange layout elements and automatically resize images, form elements and more, a design can be transformed to fit a huge variety of screen sizes and device types. As the screen gets smaller, rearrange elements to fit mobile guidelines; for example, use a script or alternate style sheet to increase white space or to replace image navigation sources on mobile devices for better usability (icons would be more beneficial on smaller screens).

Touchscreens vs. Cursors

Touchscreens are becoming increasingly popular. Assuming that smaller devices are more likely to be given touchscreen functionality is easy, but don't be so quick. Right now touchscreens are mainly on smaller devices, but many laptops and desktops on the market also have touchscreen capability. For example, the *HP Touchsmart tm2t* is a basic touchscreen laptop with traditional keyboard and mouse that can transform into a tablet.

Touchscreens obviously come with different design guidelines than purely cursor-based interaction, and the two have different capabilities as well. Fortunately, making a design work for both doesn't take a lot of effort. Touchscreens have no capability to display CSS hovers because there is no cursor; once the user touches the screen, they click. So, don't rely on CSS hovers for link definition; they should be considered an additional feature only for cursor-based devices.

Look at the article "[Designing for Touchscreen](#)" for more ideas. Many of the design suggestions in it are best for touchscreens, but they would not necessarily impair cursor-based usability either. For example, sub-navigation on the right side of the page would be more user-friendly for

touchscreen users, because most people are right-handed; they would therefore not bump or brush the navigation accidentally when holding the device in their left hand. This would make no difference to cursor users, so we might as well follow the touchscreen design guideline in this instance. Many more guidelines of this kind can be drawn from touchscreen-based usability.



Interested in CSS? Check out the Smashing eBook #9:
"Mastering CSS for Web Developers"

You can buy this eBook now from

[Apple iTunes Store](#) | [Amazon](#) | [Smashing Shop](#)

I Want to Be a Web Designer When I Grow Up

By Michael Aleo, September 27th, 2010

Last Thursday afternoon I spent about 30 minutes doing a question-and-answer session over Skype with a Web design class in Colorado. I was given some example questions to think about before our session, which were all pretty standard. "Who are some of your clients?" "What do you like about your job?" "Who is your favorite designer?" I felt prepared. Halfway through the interview, a question surprised me. "So, are there *any* jobs in Web design?" When a teenager from a town with a population of 300 asks about job security, and the others sit up and pay attention, he's not asking out of concern for my well being. He's asking out of concern for his own future.

My response was, Yes, there absolutely are jobs in Web design. "Web design is a career that will take you far, if you're willing to work hard for it." And that's the truth.

Two days later, I go onto Smashing Magazine and see Cameron Chapman's article, "[Does The Future Of The Internet Have Room For Web Designers?](#)" and nearly choke on my cereal. After reading what amounts to an [attack piece on my blog](#), and after corresponding with Smashing Magazine's editors, I suggested that they let me write a counterpoint. They agreed.

We're Not Web Designers

One of the biggest misconceptions about designers (and usually Web designers) is that we're *just* Web designers — that the scope of our skills begins with Lorem ipsum and ends with HTML emails. This is ridiculous.

Everyone in this industry fills dozens of roles throughout a given day. On a call with a prospective client, we take the role of salesperson. After the contract is sorted, we become researchers, combing through the client's outdated website, looking at analytics and identifying breakdowns and room for improvement. Soon after, we become content curators, wading through the piles of content in PDF format sent by the client, identifying what works and what doesn't.

Then we're architects, laying out content to get the most important messages across, while ensuring that everything in our layouts remains findable. We design the website itself. We manage client expectations and work through revisions. We write code. We introduce a content management system. We carefully insert and style content. We create and update the brand's presence on Facebook, Twitter and YouTube. We help to create an editorial calendar to keep content fresh and accurate. We check in on the analytics and metrics to see how the website is performing.

Notice that "design" is mentioned only once in all of that work.

You have only to look at the topics covered on websites such as Freelance Switch and Smashing Magazine to see the range of roles we fill. We're used to adapting and changing. And as the Web adapts and changes, Web designers follow suit. Just as video didn't kill the radio star, Twitter won't kill the original website.

Scrivs wrote [a great article on Drawar](#) highlighting some fallacies in the original article on Smashing Magazine. I think he sums up the “You’re just a Web designer” issue well:

“You can’t get caught up in the term “Web designer,” because if you do then you are taking away the idea that a great designer can’t learn how to translate his skills to another platform. If we are designing applications that slurp content off the Internet to present to a user, then soon we will all be Internet designers. That removes the Web designer burden and changes things a bit.”

Content Has Long Been The Undisputed King

Let’s make something very, very clear. Good Web designers know that their job is to present content in the best way possible. Period. Bad content on a beautiful website might hold a user’s interest for a few moments, but it won’t translate into success for the website... unless you run [CSS Zen Garden](#).

In her article, Cameron gets it half right when she says:

“As long as the design doesn’t give [the user] a headache or interfere with their ability to find what they want, they don’t really care how exactly it looks like or how exactly it is working.”

I agree. The user is after content, not your gradient-laden design and CSS3 hover effects. Your job is to get them there as painlessly as possible. At the same time, great design can enhance content and take a website to the next level. Great design not only gives a website credibility, but it can lead to a better experience. Mediocre design and great content lose out every time to great design and great content. It just makes for a better overall experience, where content and design both play a role.

You Can Always Go Home

Cameron makes the argument that feeds are taking over the Web and that, eventually, companies will just use them to communicate with customers.

The idea to simply rely on *facebook.com/companyname* instead of running an independent website where content originates and filters out simply won't take with companies. Companies will always need a "home base" for their content. The change will be in the media through which healthy content filters out (such as Facebook, Twitter and RSS).

Scrivs makes this point in his Drawar article:

"In essence, what is happening is that sites have to realize that their content is going to be accessed a number of different ways, and if they don't start to take control of the experience then someone else will. RSS didn't kill website traffic or revenues because there are some things you simply can't experience through an RSS feed Just because how we consume content is starting to change doesn't mean that design itself is being marginalized."

Content isn't just about press releases and text either. Ford would never give up *ford.com* for content in a variety of feeds and aggregators.

Ford.com lets you build a car: where's the feed or application for that?

Ford's entire business depends on the functionality of its website. Its Web team has worked hard to create an inviting user experience, unique to the brand's goals and issues. No company wanting to preserve its brand or corporate identity would give up its main channel of communication and branding for random feeds sprinkled across the Web.

In the same vein, no company would suddenly give up its carefully crafted creative and regress to a template. Templates have been around for years,

and no company with any kind of budget would use a \$49 packaged solution from Monster Template if it can afford to pay someone to address its particular needs and mold a website to its content. A template doesn't take needs or goals into account when content is pasted in. A good designer makes choices that a \$49 template won't make for you.

Cameron talks about how businesses will gravitate to standard templates and away from hiring designers:

"Companies won't see the point in hiring someone to create an entirely bespoke website when they can just use a template and then feed all their content to Google and Facebook and Twitter."

Web designers don't just add borders to buttons and colors to headlines. Web design is as much about problem-solving as anything else. And part of the puzzle is figuring out how best to deliver and promote content. Not everyone has the same issues.

JulesLt lays out this argument in the comments:

"[...] But I don't think any business that would previously have actually employed a designer to create their web presence, brand, will shift over to a standard template. For most businesses, Facebook, YouTube or Twitter may be alternative channels to reach their customers, but they don't want their brand subsumed into someone else's. [...] The right way to do this is to build a re-usable core, but understand the differences between platforms — and make sure your clients understand any trade-offs."

Nick adds to this argument about templates:

“Templates have no business in a world where personalization trumps everything else. Prospective clients are going to a website not just for content, but for the experience that the brand is willing to offer. Not to mention that if you’re in the business of selling yourself, a high profile custom website speaks volumes about your dedication to your chosen niche market.”

Andrei Gonzales eloquently sums up the difference between Web design and decoration:

“Design isn’t about eye-candy. It’s about problem-solving. If your Web ‘design’ isn’t solving quantifiable issues, then it isn’t design: it’s ‘decoration’.”

And moreover, we’re already in Cameron’s bleak future scenario where Web designers should be a thing of the past. Companies today *can* buy a template and feed their content to whoever they so please. And yet, they aren’t doing yet. When the designer created that template eight months ago, he didn’t know that their business was having trouble marketing to middle-aged women. That designer didn’t know they are a family-owned business in a market where that kind of thing leads to improved revenue and sales. How could he? He’s Andrei’s decorator, solving the issues between lorem ipsum and dolor sit.

In Conclusion

Web design has changed drastically during its brief existence. The changes in the medium year after year are actually quite amazing. The industry looks vastly different than it did in 2005, and we’ve changed with it. Change is inevitable, and it is the reason you visit websites like this one: to stay current. That hunger is the key to ensuring the survival of our industry.

The bottom line? Web design is a secure and growing job market. Two sources that are something of authorities on jobs and Web design agree on this point. The [United States Department of Labor predicts](#) that positions for graphic designers will increase 13% from 2008 to 2018, with over 36,000 new jobs being added. It also states that “individuals with website design [...] will have the best opportunities.”

And [in the 2008 A List Apart Survey For People Who Make Websites](#), 93.5% of respondents said they were at least fairly confident about their job security.

I'll sleep well tonight knowing that the industry I love isn't going the way of the dodo... and that I didn't lie to a class full of eager young designers in Colorado.



Interested in Web Design? Check out the Smashing eBook #7: **"Professional Web Design, Volume 2"**

You can buy this eBook now from

[Apple iTunes Store](#) | [Amazon](#) | [Smashing Shop](#)

Persuasion Triggers in Web Design

By David Travis, November 29th, 2010

How do you make decisions? If you're like most people, you'll probably answer that you pride yourself on weighing the pros and cons of a situation carefully and then make a decision based on logic. You know that other people have weak personalities and are easily swayed by their emotions, but this rarely happens to you.

You've just experienced the [fundamental attribution error](#) — the tendency to believe that other people's behavior is due to their personality ("Josh is late because he's a disorganized person") whereas our behavior is due to external circumstances ("I'm late because the directions were useless").

Cognitive biases like these play a significant role in the way we make decisions so it's not surprising that people are now examining these biases to see how to exploit them in the design of websites. I'm going to use the term 'persuasion architects' to describe designers who knowingly use these techniques to influence the behavior of users. (Many skilled designers already use some of these psychological techniques intuitively — but they wouldn't be able to articulate why they have made a particular design choice. The difference between these designers and persuasion architects is that persuasion architects use these techniques intentionally).

There are 7 main weapons of influence in the persuasion architect's arsenal:

- Reciprocation
- Commitment
- Social Proof

-
- Authority
 - Scarcity
 - Framing
 - Salience

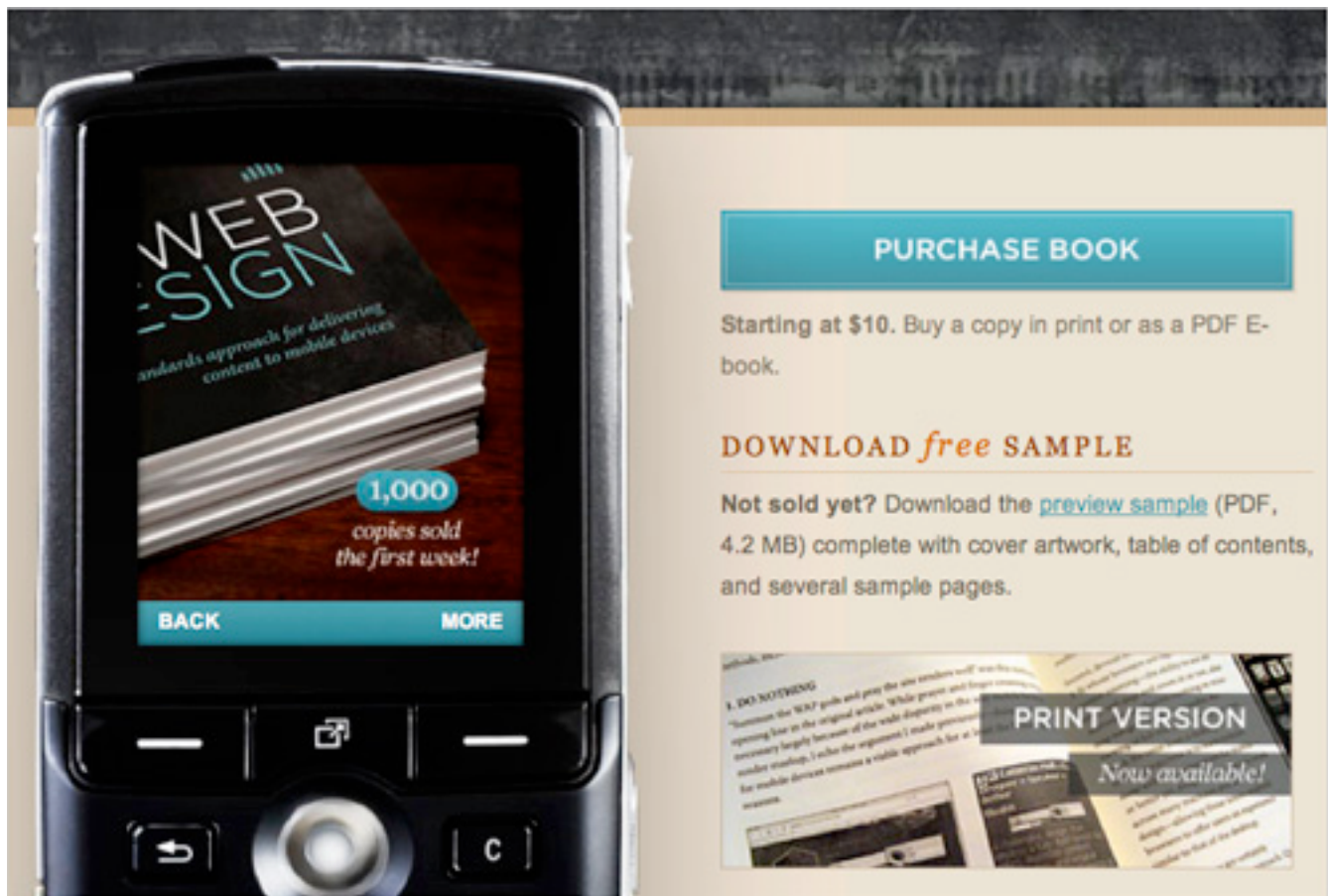
How do persuasion architects apply these principles to influence our behavior on the web?

Reciprocation

“I like to return favors.”

This principle tells us that if we feel we have been done a favor, we will want to return it. If somebody gives you a gift, invites you to a party or does you a good turn, you feel obliged to do the same at some future date.

Persuasion architects exploit this principle by giving users small gifts — a sample chapter from a book, a regular newsletter or just useful information — in the knowledge that [users will feel a commitment to offer something in return.](#)



Book publishers offer free sample chapters in the hope that you'll reciprocate the favor and buy the book.

That 'something in return' need not be a purchase (not yet, anyway). Persuasion architects know that they need to contact prospective customers on several occasions before they become an actual customer — this is why regular newsletters are a staple offering in the persuasion architect's toolkit. So in return they may simply *ask* for a referral, or a link to a website, or a comment on a blog. And note the emphasis on 'ask'. Persuasion architects are not shy of asking for the favor that you 'owe' them.

This ebook is available for free by visiting
<http://www.sethgodin.com>. Click on my head to find my blog. If you bought it, you paid too much.

In return, I'd consider it a mutual favor if you'd click here:
<http://feeds.feedburner.com/typepad/sethsmainblog>

and subscribe to the RSS feed of my blog. You get the latest on my doings, and I get to find you when I've got something neat to share. Like my new ebooks or the latest on my new secret project...

Seth Godin knows how to leverage the principle of reciprocation. This comes from one of Seth's free PDFs and you'll notice he's not shy of asking you to return the favor.

Commitment

"I like to do what I say."

This principle tells us that we like to believe that our behavior is consistent with our beliefs. Once you take a stand on something that is visible to other people, you suddenly feel a drive to maintain that point of view to appear reliable and constant.

A familiar example of this in action is when comments on a blog degrade into a flame war. Commentators are driven to justify their earlier comments and often become even more polarized in their positions.



Flamewars

[Home](#) [Login](#) [Register](#) [Top users](#) [Tag cloud](#)

Flamewars

Submit a new flamewar

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209

Vote

politics: The War on Paultards



Posted by [MomofTwo](#) 1065 days ago (<http://reddit.com>)

Category: [Politics](#) | Tags: [usa presidential election politics](#)

It has Ron Paul supporters. It has people who call Ron Paul's supporters "Paultards". A

15 Comments Add this link to... Bury

209

Vote

Flamewar thread



Posted by [ViktorVaughn](#) 988 days ago (<http://theofftopic.com>)

Category: [Other](#) | Tags: [steve bananas cake](#)

This is a pretty good thread where people go and just flame each other. There are some

Quote: You possess the spelling of an illegal immigrant. [read more](#) »

14 Comments Add this link to... Bury

[Flamewars.net](#) contains many examples of people justifying their commitment to comments they have made on a blog posting.

Persuasion architects apply this principle by asking for a relatively minor, but visible, commitment from you. They know that if they can get you to act in a particular way, you'll soon start believing it. For example, an organization may ask you to 'Like' one of their products on Facebook to watch a video or get access to particular content. Once this appears in your NewsFeed, you have made a public commitment to the product and feel more inclined to support it.



[Oxfam](#) uses the principle of commitment in the knowledge that a small change in behavior will lead to larger changes later on.

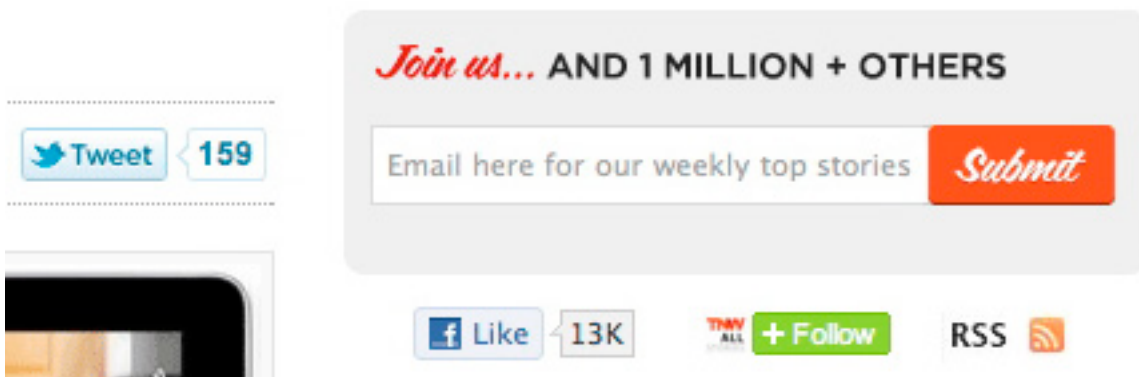
Social Proof

"I go with the flow."

This principle tells us that we like to observe other people's behavior to judge what's normal, and then we copy it.

Persuasion architects apply this principle by showing us what other people are doing on their websites. For example, [researchers at Columbia University](#) set up a website that asked people to listen to, rate and download songs by unsigned bands. Some people just saw the names of the songs and bands, while others — the "social influence" group — also saw how many times the songs had been downloaded by other people.

In this second group, the most popular songs were much more popular (and the least popular songs were less popular) than in the independent condition, showing that people's behavior was influenced by the crowd. Even more surprisingly, when they ran the experiment again, the particular songs that became "hits" were different, showing that social influence didn't just make the hits bigger but also made them more unpredictable.



1 million people can't be wrong (from thenextweb.com).

Some familiar examples of social proof on the Web are, "People who shopped for this product also looked at..." feature and Amazon's, "What do customers ultimately buy after viewing this item?".

Persuasion architects also exploit this principle in the power of defaults. They know that the default setting of a user interface control has a powerful influence over people's behavior. We tend to see the default setting as a 'recommended' option — the option that most other people would choose in our situation. There are many examples of this being used as a [black hat usability technique](#), where additional items (like insurance) are sneaked into the user's basket.

Authority

“I’m more likely to act on information if it’s communicated by an expert.”

This principle is about influencing behavior through credibility. People are more likely to take action if the message comes from a credible and authoritative source. That’s why you’ll hear people name dropping and it’s also what drives retweets on Twitter.



code8 Code8 Design+Code

> @smashingmag Communicating errors - <http://bit.ly/cDJ0nR> - Nice read about usability, written by @userfocus

17 Nov



borislavkiprin Borislav Kiprin

RT @smashingmag: Communicating errors - <http://bit.ly/cDJ0nR> - Nice read about usability, written by @userfocus

17 Nov



digitalldesigns Mike Archer

RT @smashingmag Communicating errors - <http://bit.ly/cDJ0nR> - Nice read about usability, written by @userfocus #usability

17 Nov



smashingmag Smashing Magazine

Communicating errors - <http://bit.ly/cDJ0nR> - Nice read about usability, written by @userfocus

17 Nov

A tweet from @smashingmag is likely to be retweeted because the brand has such authority.

For design guidance, we can turn to the [Stanford Persuasive Technology Lab](#) (founded by B.J. Fogg) as they have developed a number of guidelines for the credibility of websites. These guidelines are based on research with over 4,500 people and are based on peer-reviewed, scientific research. Thanks to their research, we know that you should highlight the expertise in your organization and in the content and services you provide; show that honest and trustworthy people stand behind your site; and avoid errors of all types, no matter how small they seem.

Persuasion architects exploit this principle by providing glowing testimonials on their website. If it's an e-commerce site they will have highly visible icons showing the site is secure and can be trusted. If the site includes a forum, they'll give people the opportunity to rate their peers: for example, some Web forums (like [Yahoo! Answers](#)) let users vote up (or down) answers to posted questions. The top ranked answer is then perceived to be the most authoritative.

The screenshot shows a web interface for 'UXExchange'. At the top, there's a navigation bar with 'Questions' highlighted in orange, and other tabs for 'Tags', 'Users', 'Badges', and 'Unanswered'. Below the navigation bar, the title of the question is 'friendly format for Phone Numbers'. The question itself is marked with a '4' and asks about flexible phone number input formats. It includes tags like 'forms', 'data-entry', 'phone-number-masking', 'masking', and 'validation'. The question was asked by 'RustyJay' on Nov 3 and edited by 'JeromeR' on Nov 8. Below the question, it says '6 Answers'. The first answer is marked with a '4' and suggests using a standard like 'E.123'. The answer was given by 'markedup' on Nov 4. The interface includes voting arrows and a 'flag' link for both the question and the answer.

[UXExchange](#) allows users to vote up and vote down answers to questions, ensuring that the most authoritative answer rises to the top.

Scarcity

"If it's running out, I want it."

This principle tells us that people are more likely to want something if they think it is available only for a limited time or if it is in short supply. Intriguingly, this isn't just about the fear of missing out (a kind of reverse social proof). Scarcity actually makes stuff appear more valuable. For example, psychologists have shown that if you give people a chocolate

biscuit from a jar, they rate the biscuit as more enjoyable if it comes from a jar with just 2 biscuits than from a jar with 10.

Persuasion architects exploit this by revealing scarcity in the design of the interface. This could be an item of clothing that is running short in your size, theatre tickets that are running out, or invitations to a beta launch. They know that perceived scarcity will generate demand.

Related to this is the 'closing down' sale. One of the artists at my friend's art co-op recently decided to quit the co-op and announced this with a sign in-store. She had a big rush on sales of her art. Then she decided not to quit after all. So pretending to go out of business might be a ploy!



OXO Good Grips Snap-Lock Can Opener
by [OXO](#)
★★★★☆ (28 customer reviews)

Price: **£13.50**

In stock.
Dispatched from and sold by [HGP Direct](#).
Only 4 left in stock--order soon.

Phrases like 'only 4 left in stock' seem to stimulate a primal urge not to miss out.

Framing

"I'm strongly influenced by the way prices are framed."

This principle acknowledges that people aren't very good at estimating the absolute value of what they are buying. People make comparisons, either against the alternatives you show them or some external benchmark.

One example is the way [a restaurant uses an “anchor” dish on its menu](#): this is an overpriced dish whose sole aim is to make everything else near it look like a relative bargain. Another example is the [Goldilocks effect](#) where you provide users with three alternative choices. However, two of the choices are decoys: one is an overpriced, gold plated version of your product; another is a barely functional base version. The third choice — the one you want people to choose — sits midway between the other two and so feels “just right.”



Salience

“My attention is drawn to what’s relevant to me right now.”

This principle tells us that people are more likely to pay attention to elements in your user interface that are novel (such as a colored ‘submit’ button) and that are relevant to where there are in their task. For example, there are specific times during a purchase when shoppers are more likely to investigate a promotion or a special offer. By identifying these [seducible moments](#) you’ll learn when to offer a customer an accessory for a product they have bought.

1. Your basket	2. Delivery/collection	3. Your details
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Please review your Basket

Item	Item price	Home delivery																		
<div>1</div> <div>  <div> SONY KDL32EX301U 32" LCD TV Remove this item </div> </div> <div> Quantity: <input type="text" value="1"/> </div> <div> Need help with installation or recycling? <table> <tr> <td>3 Year ExtraCare Plan ?</td><td>+ £79.99</td><td>Add to order</td></tr> <tr> <td>5 Year ExtraCare Plan ?</td><td>+ £99.99</td><td>Add to order</td></tr> <tr> <td>Recycling service for old appliance ?</td><td>+ £9.95</td><td>Add to order</td></tr> <tr> <td>TV installation - 24" - 39" ?</td><td>+ £40.00</td><td>Add to order</td></tr> <tr> <td>TV Wall Mounting (does not include bracket) ?</td><td>+ £110.00</td><td>Add to order</td></tr> <tr> <td>Digital Aerial Installation to 1 TV point ?</td><td>+ £149.95</td><td>Add to order</td></tr> </table> </div>	3 Year ExtraCare Plan ?	+ £79.99	Add to order	5 Year ExtraCare Plan ?	+ £99.99	Add to order	Recycling service for old appliance ?	+ £9.95	Add to order	TV installation - 24" - 39" ?	+ £40.00	Add to order	TV Wall Mounting (does not include bracket) ?	+ £110.00	Add to order	Digital Aerial Installation to 1 TV point ?	+ £149.95	Add to order	£299.00	<div>  Delivery from 1 to 5 days </div>
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5 Year ExtraCare Plan ?	+ £99.99	Add to order																		
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After placing an order for a TV at the [Comet Web site](#), the designers encourage you to add other relevant items to your basket. This is exactly the right time to make the offer: once you've ordered the TV they remind you that you'll need to install it.

What Font Should I Use?

By Dan Mayer, December 14th, 2010

For many beginners, the task of picking fonts is a mystifying process. There seem to be endless choices — from normal, conventional-looking fonts to novelty candy cane fonts and bunny fonts — with no way of understanding the options, only never-ending lists of categories and recommendations. Selecting the right typeface is a mixture of firm rules and loose intuition, and takes years of experience to develop a feeling for. Here are five guidelines for picking and using fonts that I've developed in the course of using and teaching typography.

1. Dress For The Occasion

Many of my beginning students go about picking a font as though they were searching for new music to listen to: they assess the personality of each face and look for something unique and distinctive that expresses their particular aesthetic taste, perspective and personal history. This approach is problematic, because it places too much importance on individuality.



The most appropriate analogy for picking type. (Photo credit: [Samuuraijohnny](#). Used under Creative Commons license.)

For better or for worse, picking a typeface is more like getting dressed in the morning. Just as with clothing, there's a distinction between typefaces that are expressive and stylish versus those that are useful and appropriate for many situations, and our job is to try to find the right balance for the occasion. While appropriateness isn't a sexy concept, it's the acid test that should guide our choice of font.

My "favorite" piece of clothing is probably an outlandish pair of 70's flare bellbottoms that I bought at a thrift store, but the reality is that these don't make it out of my closet very often outside of Halloween. Every designer has a few favorite fonts like this — expressive personal favorites that we

hold onto and wait for the perfect festive occasion to use. More often, I find myself putting on the same old pair of Levis morning after morning. It's not that I *like* these better than my cherished flares, exactly... I just seem to wind up wearing them most of the time.

Every designer has a few workhorse typefaces that are like comfortable jeans: they go with everything, they seem to adapt to their surroundings and become more relaxed or more formal as the occasion calls for, and they just seem to come out of the closet day after day. Usually, these are faces that have a number of weights (Light, Regular, Bold, etc) and/or cuts (Italic, Condensed, etc). My particular safety blankets are: [Myriad](#), [Gotham](#), [DIN](#), [Akzidenz Grotesk](#) and [Interstate](#) among the sans; [Mercury](#), [Electra](#) and [Perpetua](#) among the serif faces.



A large type family like Helvetica Neue can be used to express a range of voices and emotions. Versatile and comfortable to work with, these faces are like a favorite pair of jeans for designers.

2. Know Your Families: Grouping Fonts

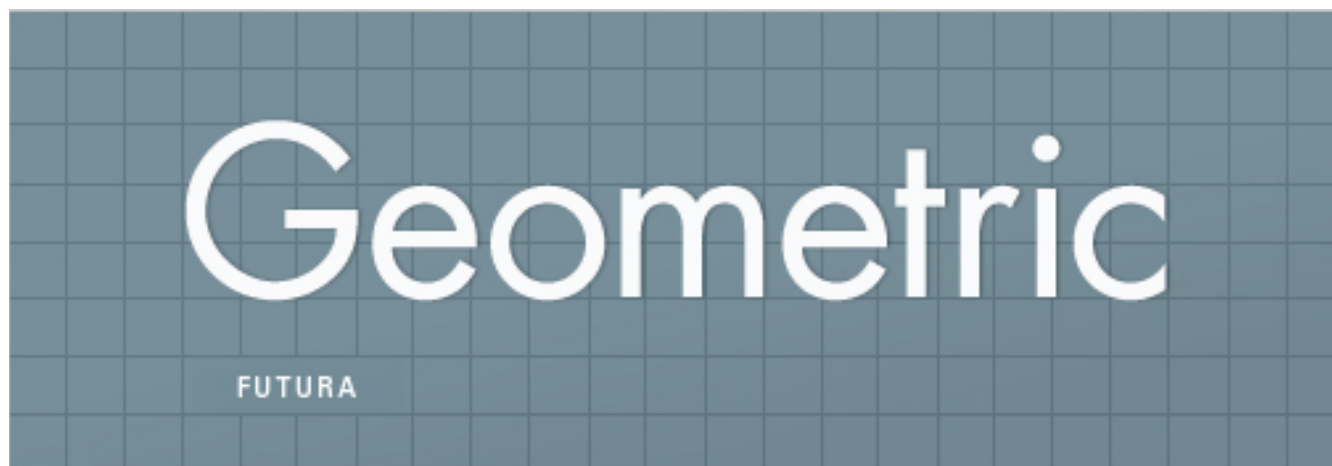


The clothing analogy gives us a good idea of what kind of closet we need to put together. The next challenge is to develop some kind of structure by which we can mentally categorize the different typefaces we run across.

Typefaces can be divided and subdivided into dozens of categories (Scotch Modern, anybody?), but we only really need to keep track of five groups to establish a working understanding of the majority of type being used in the present-day landscape.

The following list is not meant as a comprehensive classification of each and every category of type (there are plenty of great sites on the Web that already tackle this, such as [Typedia's type classifications](#)) but rather as a manageable shorthand overview of key groups. Let's look at two major groups without serifs (serifs being the little feet at the ends of the letterforms), two with serifs, and one outlier (with big, boxy feet).

1. Geometric Sans



I'm actually combining three different groups here (Geometric, Realist and Grotesk), but there is enough in common between these groups that we can think of them as one entity for now. Geometric Sans-Serifs are those faces that are based on strict geometric forms. The individual letter forms of a Geometric Sans often have strokes that are all the same width and frequently evidence a kind of "less is more" minimalism in their design.

At their best, Geometric Sans are clear, objective, modern, universal; at their worst, cold, impersonal, boring. A classic Geometric Sans is like a beautifully designed airport: it's impressive, modern and useful, but we have to think twice about whether or not we'd like to live there.

Examples of Geometric/Realist/Grotesk Sans: Helvetica, Univers, Futura, Avant Garde, Akzidenz Grotesk, Franklin Gothic, Gotham.

2. Humanist Sans



These are Sans faces that are derived from handwriting — as clean and modern as some of them may look, they still retain something inescapably human at their root. Compare the 't' in the image above to the 't' in 'Geometric' and note how much more detail and idiosyncrasy the Humanist 't' has.

This is the essence of the Humanist Sans: whereas Geometric Sans are typically designed to be as simple as possible, the letter forms of a Humanist font generally have more detail, less consistency, and frequently involve thinner and thicker stroke weights — after all they come from our handwriting, which is something individuated. At their best, Humanist Sans manage to have it both ways: modern yet human, clear yet empathetic. At their worst, they seem wishy-washy and fake, the hand servants of corporate insincerity.

Examples of Humanist Sans: Gill Sans, Frutiger, Myriad, Optima, Verdana.

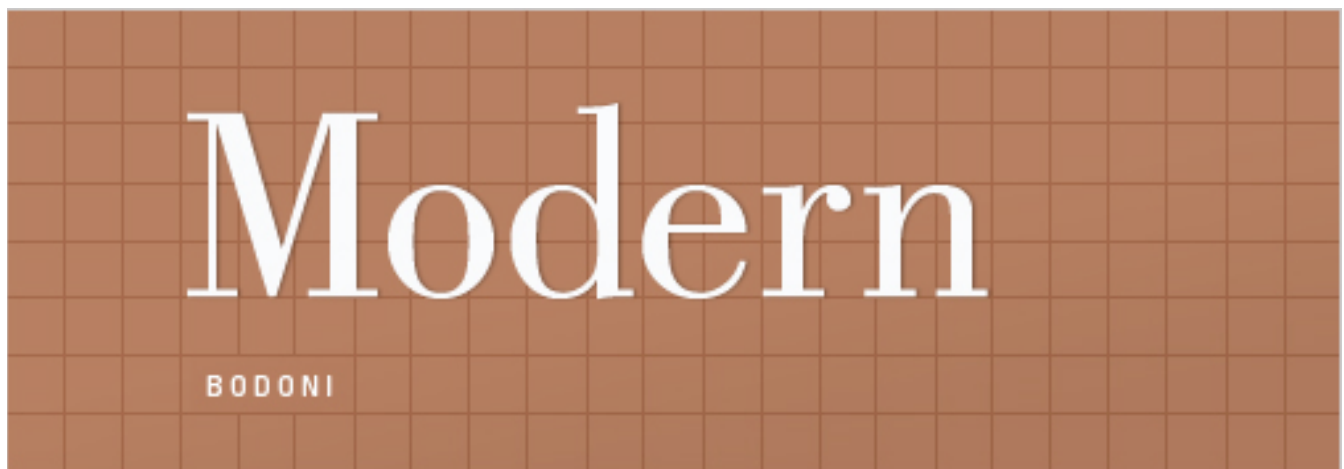
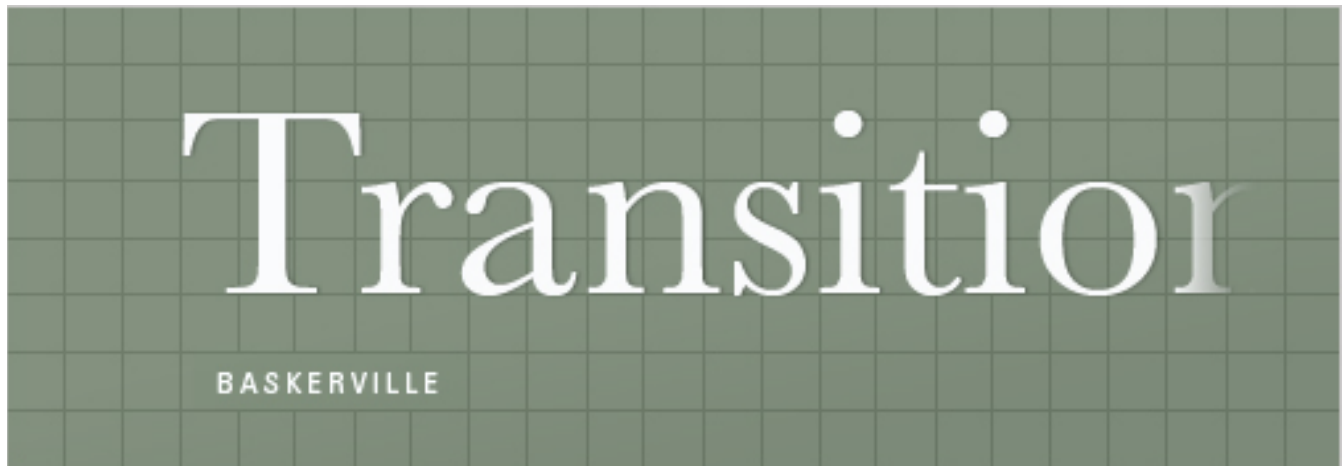
3. Old Style



Also referred to as 'Venetian', these are our oldest typefaces, the results from incremental developments of calligraphic forms over the past centuries. Old Style faces are marked by little contrast between thick and thin (as the technical restrictions of the time didn't allow for it), and the curved letter forms tend to tilt to the left (just as calligraphy tilts). Old Style faces at their best are classic, traditional, readable and at their worst are... well, classic and traditional.

Examples of Old Style: Jenson, Bembo, Palatino, and — especially — Garamond, which was considered so perfect at the time of its creation that no one really tried much to improve on it for a century and a half.

4. Transitional and Modern



An outgrowth of Enlightenment thinking, Transitional (mid-18th Century) and Modern (late-18th century, not to be confused with mid-20th century modernism) typefaces emerged as type designers experimented with making their letterforms more geometric, sharp and virtuosic than the unassuming faces of the Old Style period. Transitional faces marked a modest advancement in this direction — although Baskerville, a quintessential Transitional typeface, appeared so sharp to onlookers that people believed it could hurt one's vision to look at it.

In carving Modernist punches, type designers indulged in a kind of virtuosic demonstration of contrasting thick and thin strokes — much of

the development was spurred by a competition between two rival designers who cut similar faces, Bodoni and Didot. At their best, transitional and modern faces seem strong, stylish, dynamic. At their worst, they seem neither here nor there — too conspicuous and baroque to be classic, too stodgy to be truly modern.

Examples of transitional typefaces: Times New Roman, Baskerville.

Examples of Modern serifs: Bodoni, Didot.

5. Slab Serifs



Also known as ‘Egyptian’ (don’t ask), the Slab Serif is a wild card that has come strongly back into vogue in recent years. Slab Serifs usually have strokes like those of sans faces (that is, simple forms with relatively little contrast between thick and thin) but with solid, rectangular shoes stuck on the end. Slab Serifs are an outlier in the sense that they convey very specific — and yet often quite contradictory — associations: sometimes the thinker, sometimes the tough guy; sometimes the bully, sometimes the nerd; sometimes the urban sophisticate, sometimes the cowboy.

They can convey a sense of authority, in the case of heavy versions like Rockwell, but they can also be quite friendly, as in the recent favorite

Archer. Many Slab Serifs seem to express an urban character (such as Rockwell, Courier and Lubalin), but when applied in a different context (especially Clarendon) they strongly recall the American Frontier and the kind of rural, vernacular signage that appears in photos from this period. Slab Serifs are hard to generalize about as a group, but their distinctive blocky serifs function something like a pair of horn-rimmed glasses: they add a distinctive wrinkle to anything, but can easily become overly conspicuous in the wrong surroundings.

Examples of Slab Serifs: Clarendon, Rockwell, Courier, Lubalin Graph, Archer.

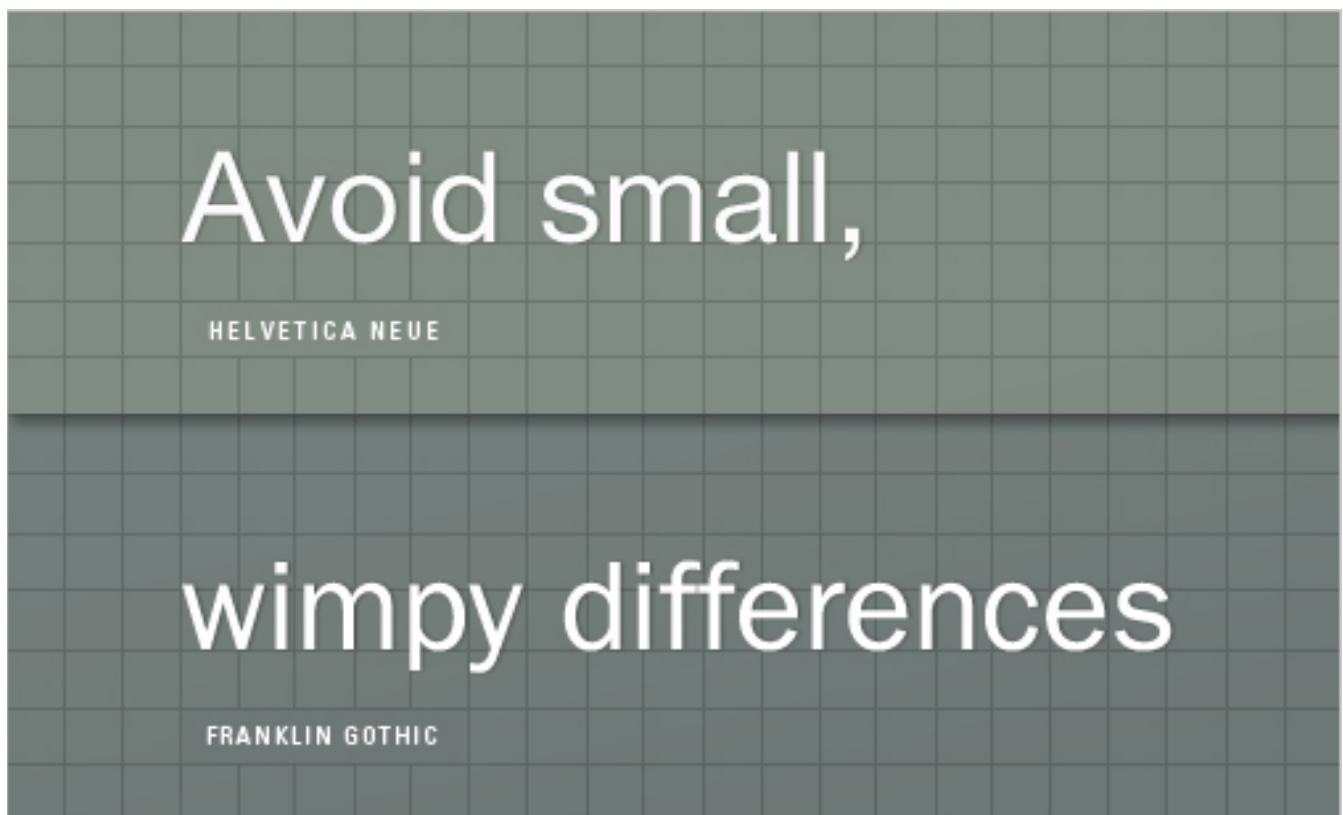
3. Don't Be a Wimp: The Principle of Decisive Contrast

So, now that we know our families and some classic examples of each, we need to decide how to mix and match and — most importantly — whether to mix and match at all. Most of the time, one typeface will do, especially if it's one of our workhorses with many different weights that work together. If we reach a point where we want to add a second face to the mix, it's always good to observe this simple rule: keep it exactly the same, or change it a lot — avoid wimpy, incremental variations.

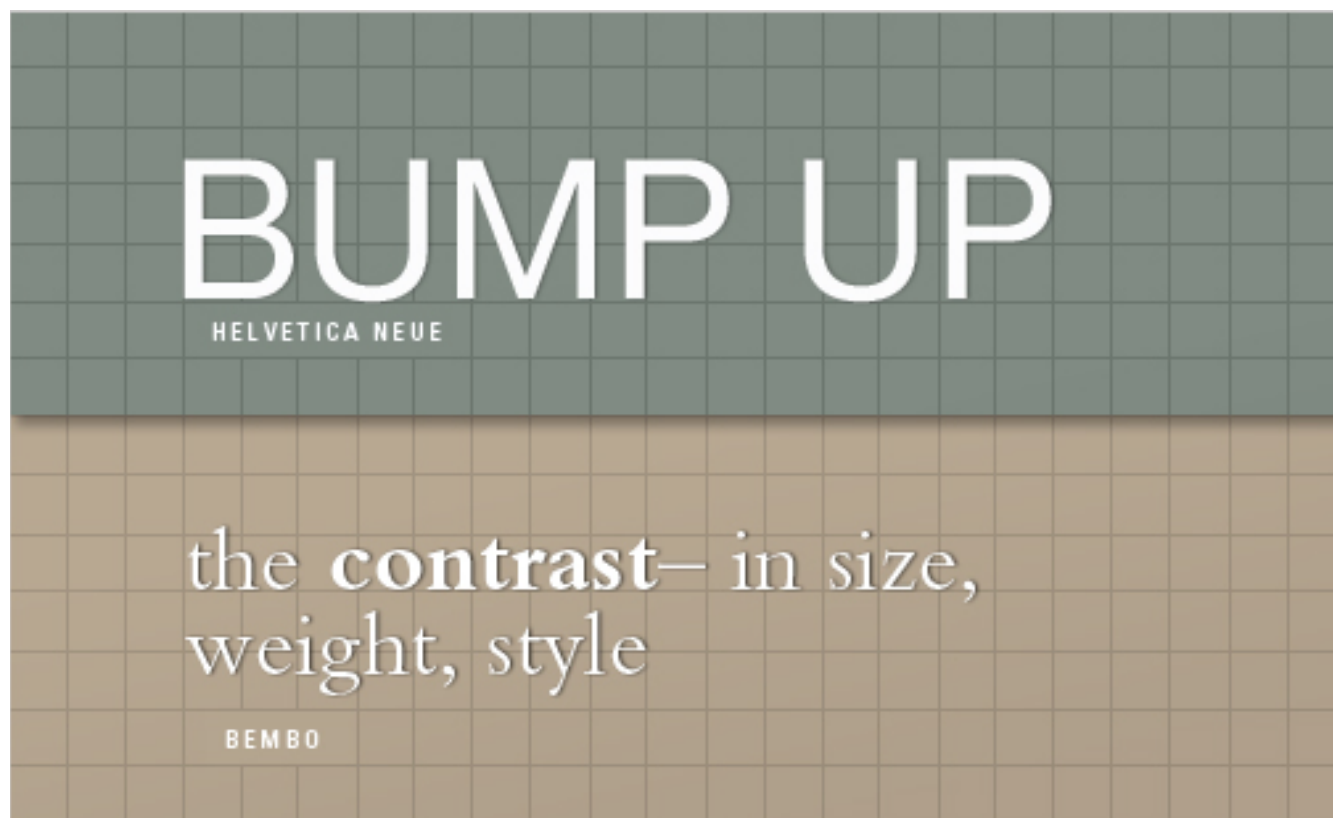
This is a general principle of design, and its official name is *correspondence and contrast*. The best way to view this rule in action is to take all the random coins you collected in your last trip through Europe and dump them out on a table together. If you put two identical coins next to each other, they look good together because they match (*correspondence*). On the other hand, if we put a dime next to one of those big copper coins we picked up somewhere in Central Europe, this also looks interesting because of the *contrast* between the two — they look sufficiently different.

What doesn't work so well is when we put our dime next to a coin from another country that's almost the same size and color but slightly different. This creates an uneasy visual relationship because it poses a question, even if we barely register it in on a conscious level — our mind asks the question of whether these two are the same or not, and that process of asking and wondering distracts us from simply viewing.

When we combine multiple typefaces on a design, we want them to coexist comfortably — we don't want to distract the viewer with the question, *are these the same or not?* We can start by avoiding two different faces from within one of the five categories that we listed above all together — two geometric sans, say Franklin and Helvetica. While not exactly alike, these two are also not sufficiently different and therefore put our layout in that dreaded neither-here-nor-there place.



If we are going to throw another font into the pot along with Helvetica, much better if we use something like Bembo, a classic Old Style face. Centuries apart in age and light years apart in terms of inspiration, Helvetica and Bembo have enough contrast to comfortably share a page:



Unfortunately, it's not as simple as just picking fonts that are very, very different — placing our candy cane font next to, say, Garamond or Caslon does not guarantee us typographic harmony. Often, as in the above example of Helvetica and Bembo, there's no real explanation for why two faces complement each other — they just do.

But if we want some principle to guide our selection, it should be this: often, two typefaces work well together if they have one thing in common but are otherwise greatly different. This shared common aspect can be visual (similar x-height or stroke weight) or it can be chronological.

Typefaces from the same period of time have a greater likelihood of working well together... and if they are by the same designer, all the better.



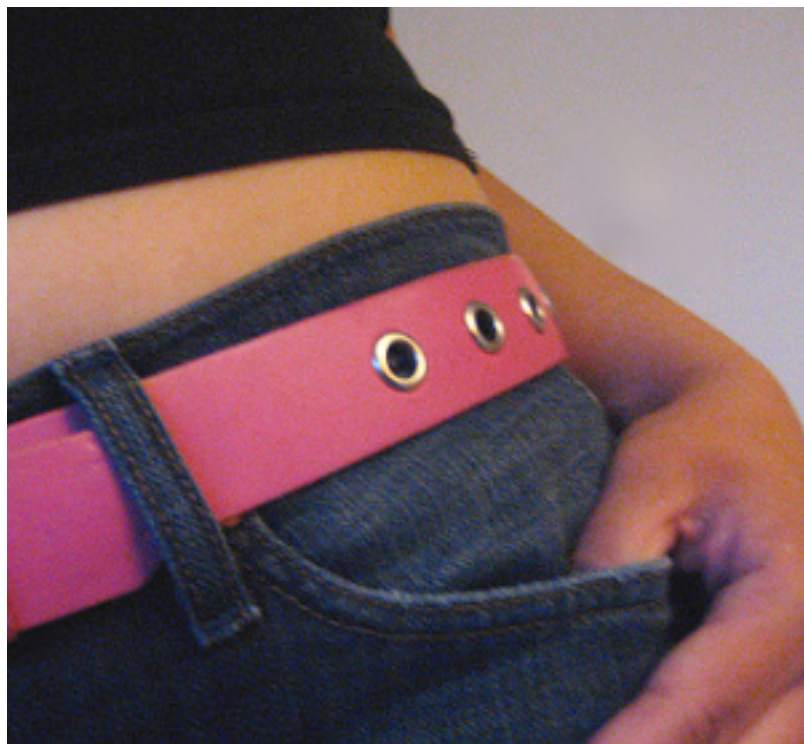
4. A Little Can Go a Long Way

‘Enough with all these conventional-looking fonts and rules!’ you say. ‘I need something for my rave flyer! And my Thai restaurant menu! And my Christmas Cards!’ What you’re pointing out here is that all the faces I’ve discussed so far are ‘body typefaces’, meaning you could conceivably set a whole menu or newspaper with any of them; in the clothing analogy presented in part one, these are our everyday Levis. What about our Halloween flares?

Periodically, there’s a need for a font that oozes with personality, whether that personality is warehouse party, Pad Thai or Santa Claus. And this need brings us into the vast wilderness of Display typefaces, which includes everything from Comic Sans to our candy-cane and bunny fonts. ‘Display’ is

just another way of saying ‘do not exceed recommended dosage’: applied sparingly to headlines, a display font can add a well-needed dash of flavor to a design, but it can quickly wear out its welcome if used too widely.

Time for another clothing analogy:



(Photo credit: [Betsssssy](#). Used under Creative Commons license.)

Betsy's outfit works because the pink belts acts as an accent and is offset by the down-to-earthiness of blue jeans. But if we get carried away and slather Betsey entirely in pink, she might wind up looking something like this:



(Photo credit: [Phillip Leroyer](#)). Used under Creative Commons license.)

Let's call this the Pink Belt Principle of Type: display faces with lots of personality are best used in small doses. If we apply our cool display type to every bit of text in our design, the aesthetic appeal of the type is quickly spent and — worse yet — our design becomes very hard to read. Let's say we're designing a menu for our favorite corner Thai place. Our client might want us to use a 'typically' Asian display face, like Sho:

HOUSE OF THAI

So far, so good. But look what happens when we apply our prized font choice to the entire menu:

HOUSE OF THAI

OPEN MON-FRI 8-12. MAJOR CREDIT CARDS ACCEPTED

APPETIZERS

SATAY	\$5.99
FRIED SHRIMP	\$6.99
SPRING ROLLS	\$6.50

NOODLES

PAD THAI	\$9.50
PAD SEE-YEW	\$10.99
RED NAH NOODLES	\$9.50

SEAFOOD

STEAM MUSSELS	\$11.99
PLA-RED-PRIKI	\$12.99
PA-NANG CURRY SEAFOOD	\$10.50

Enough already. Let's try replacing some of the rank-and-file text copy with something more neutral:

HOUSE OF THAI

OPEN MON-FRI, 8-12. MAJOR CREDIT CARDS ACCEPTED

APPETIZERS

Satay	\$5.99
Fried Shrimp	\$6.99
Spring Rolls	\$6.50

NOODLES

Pad Thai	\$9.50
Pad See-Yew	\$10.99
Rad Nah Noodles	\$9.50

SEAFOOD

Steam Mussels	\$11.99
Pla-Rad-Priki	\$12.99
Pa-Nang Curry Seafood	\$10.50

That's better. Now that we've reined in the usage of our star typeface, we've allowed it to shine again.

5. Rule Number Five Is ‘There Are No Rules’

Really. Look hard enough and you will find a dazzling-looking menu set entirely in a hard-to-read display font. Or of two different Geometric Sans faces living happily together on a page (in fact, just this week I wound up trying this on a project and was surprised to find that it hit the spot). There are only conventions, no ironclad rules about how to use type, just as there are no rules about how we should dress in the morning. It’s worth trying everything just to see what happens — even wearing your Halloween flares to your court date.

In Conclusion

Hopefully, these five principles will have given you some guidelines for how to select, apply and mix type — and, indeed, whether to mix it at all. In the end, picking typefaces requires a combination of understanding and intuition, and — as with any skill — demands practice. With all the different fonts we have access to nowadays, it’s easy to forget that there’s nothing like a classic typeface used well by somebody who knows how to use it.

Some of the best type advice I ever received came early on from my first typography teacher: pick one typeface you like and use it over and over for months to the exclusion of all others. While this kind of exercise can feel constraining at times, it can also serve as a useful reminder that the quantity of available choices in the Internet age is no substitute for quality.

The Design Matrix: A Powerful Tool for Guiding Client Input

By Bridget Fahrland, February 9th, 2011

I used to think the beginning of a website design project was the best part. Hopes are high. People are full of great ideas. Nobody is disappointed yet. But as I gained experience, I found that learning about a client's brand, competitors and customers doesn't always give clear direction about design goals.

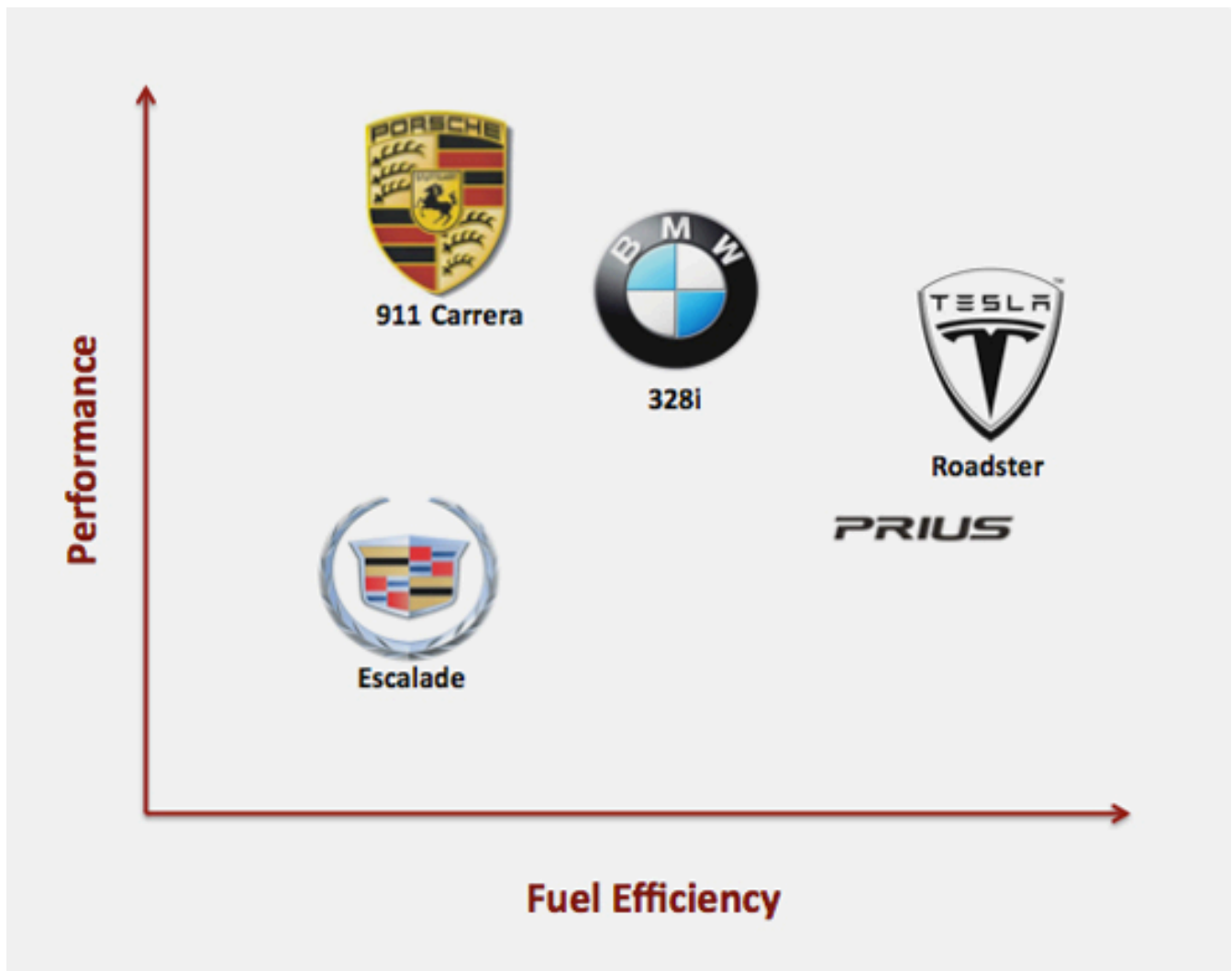
Brand discussions can generate goals like "be modern," but they don't necessarily determine how to accomplish those goals. Competitor reviews can devolve into cherry-picking sessions that spawn "frankencomps" rather than provide helpful feedback. And mood boards, which communicate a general feeling, don't help to articulate or prioritize design goals. With a design matrix, you can guide discussions and establish clear direction.

Hey, You Got Math In My Art...

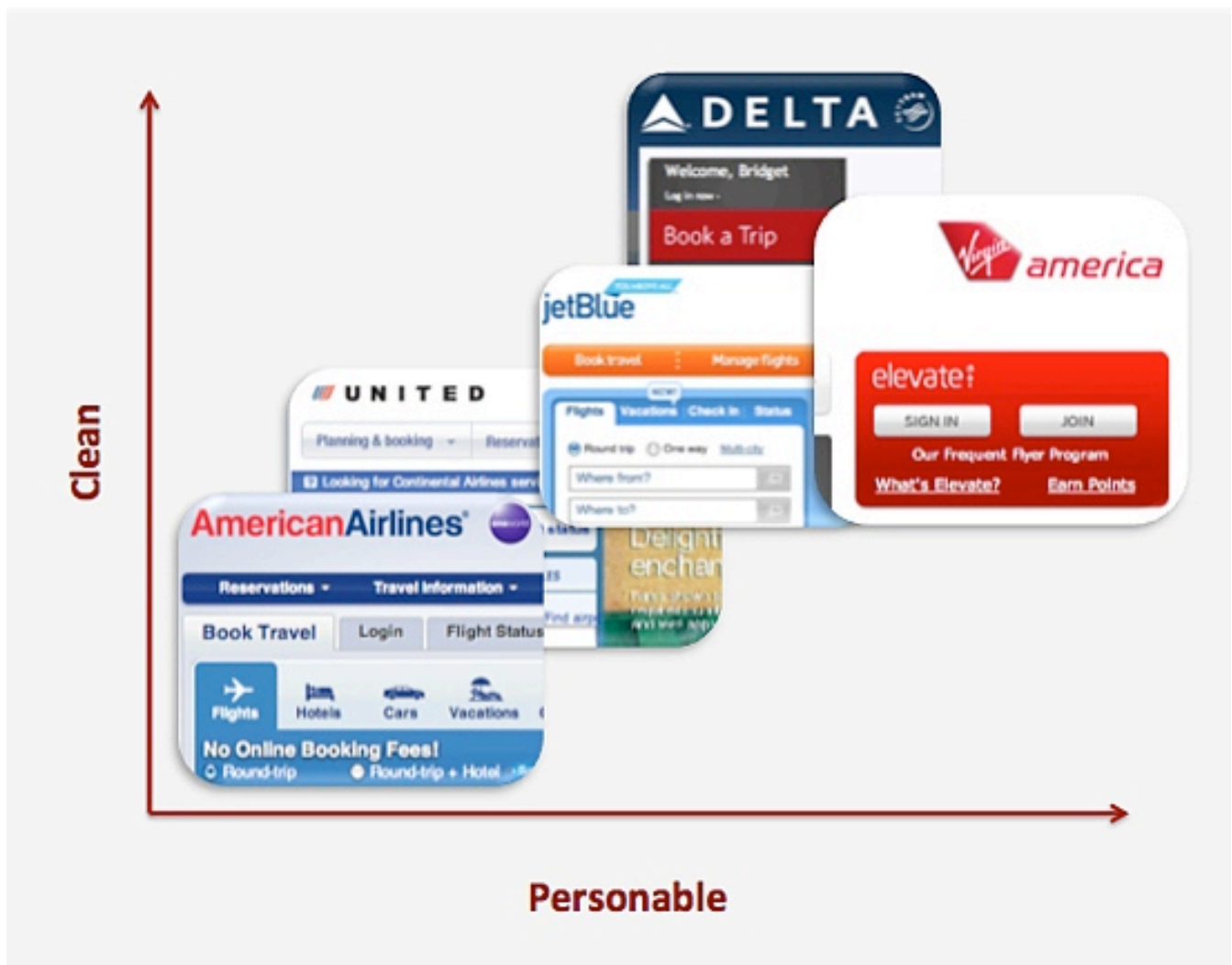
Sometimes the abstract nature of design is enough to make you envy the people over in accounting, with their definite answers and proven formulas. While the beauty of design is that it transcends the world of definite answers, introducing a little math in the form of design matrices can help you create better websites by providing a clear picture of where the website design is today and where it should go tomorrow.

Design matrices don't require any serious math skills because they're based on the coordinate system. Chances are you've seen a competitor matrix

that ranks brands according to two key attributes on X and Y axes (for example, value could be plotted against profit margin). A design matrix is essentially like a competitor matrix but ranks the client's website against competitor websites, and it uses design attributes ("clean" and "warm," for example) instead of other points of competitive comparison.



A typical competitor matrix ranks brands according to rational factors. (This example, which compares a few car models, was created for illustrative purposes only.)



A design matrix ranks website designs according to design attributes. (This example, which compares airline website designs, was created for illustrative purposes only).

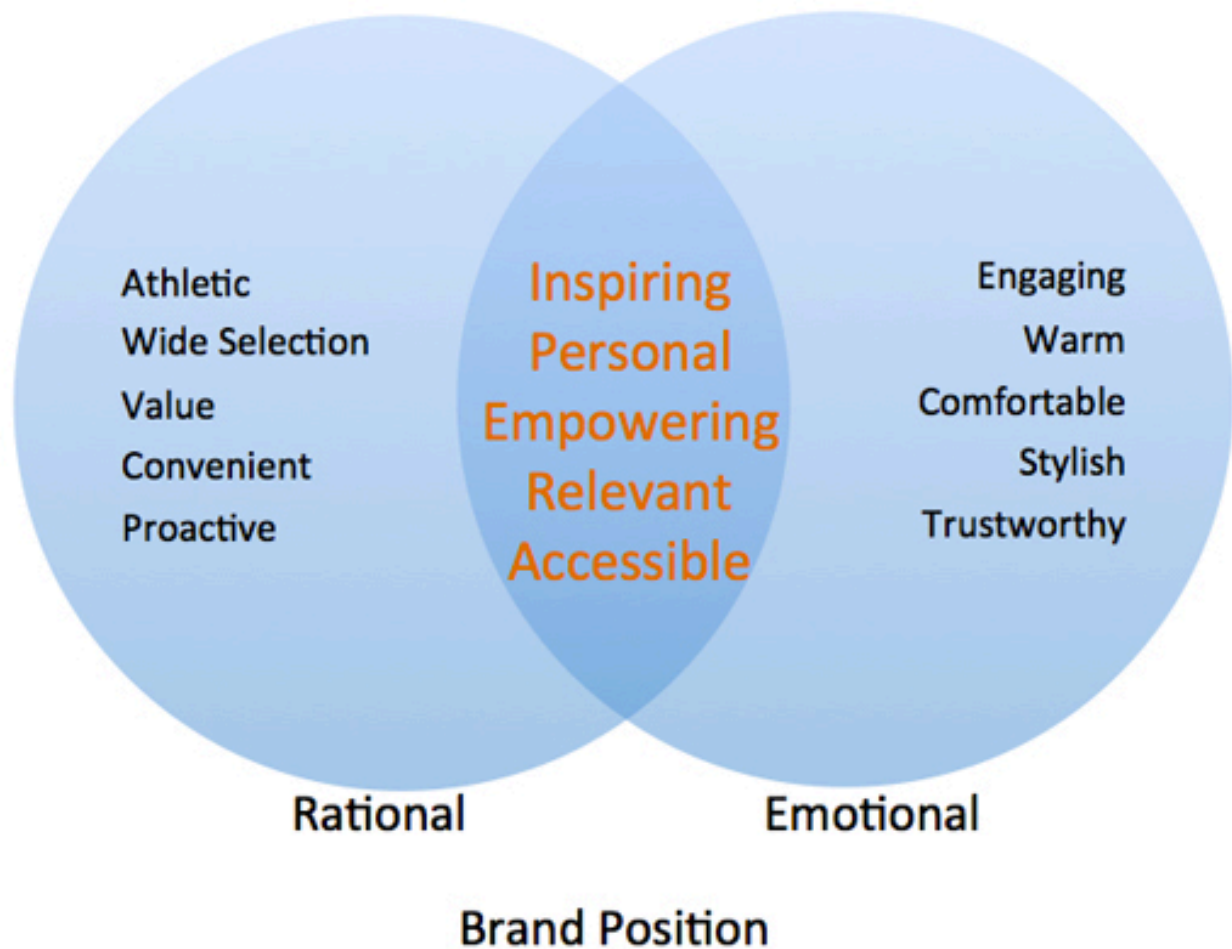
Design matrices are powerful tools for determining the path of the website design process, because: they force you to determine two design attributes to focus on; they build consensus within a team; they guide the clients' perception of competitors; and, most importantly, they lead to differentiated website designs.

The Art (And Math) Of Building A Design Matrix

Step 1: Gather Information

To build a design matrix, you will need to know the client's core brand attributes and main competitors. You should also have a broad understanding of what the redesign aims to accomplish (from a design perspective): "the website is cluttered" or "our website is not engaging." The good news is that information gathering is a normal part of the discovery phase.

A design matrix should not be the only piece of work involved in the discovery phase, but it can replace some other approaches. Creating or documenting a brand's position and defining the key redesign goals are essential. However, a design matrix could potentially replace mood boards. A mood board is a collage or grid of images that capture the "feel" or "tone" of a brand. They are valuable tools for providing direction to new brands, but they provide a less concrete direction than a design matrix. If the brand is in its nascent form and needs broad high-level direction, then mood boards work well; but if you are working with an established brand or a client who prefers a concrete approach, then a design matrix is the best bet.



Document the brand's position before creating a design matrix. (For illustrative purposes only.)

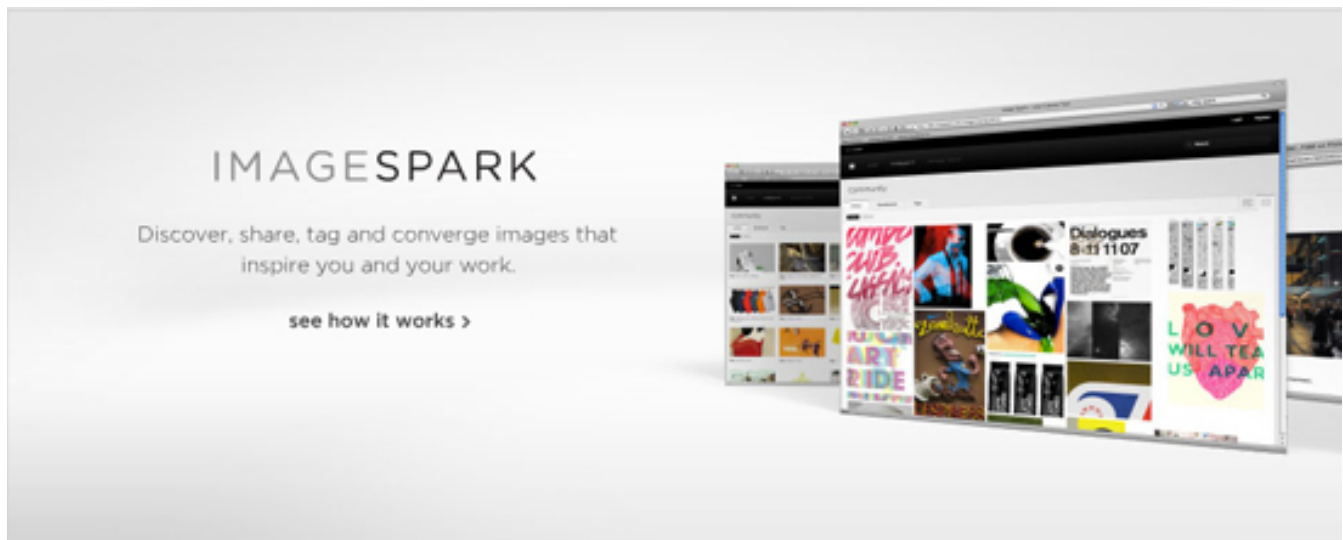



Image Spark is a great resource for creating online mood boards—particularly useful if you are working with a company that requires high-level brand definition.

Another common discovery activity that design matrices can replace is the “competitor website review.” Looking at competitors’ websites can generate lively discussion, but too often it either shifts the focus to feature sets instead of design direction, or it becomes a cherry-picking session for disparate design elements from a variety of websites that the designer is somehow supposed to mash together into a single coherent website design.

Create a design matrix that shows the current website in relation to competing websites. This way, you are less likely to get distracted by feature sets or be expected to combine all sorts of design elements. That said, if you are looking for an energizing group activity, competitor reviews can generate more brainstorming than a design matrix. Doing both is an option, but if you do that, then do the matrix after the walk-through of competitors.


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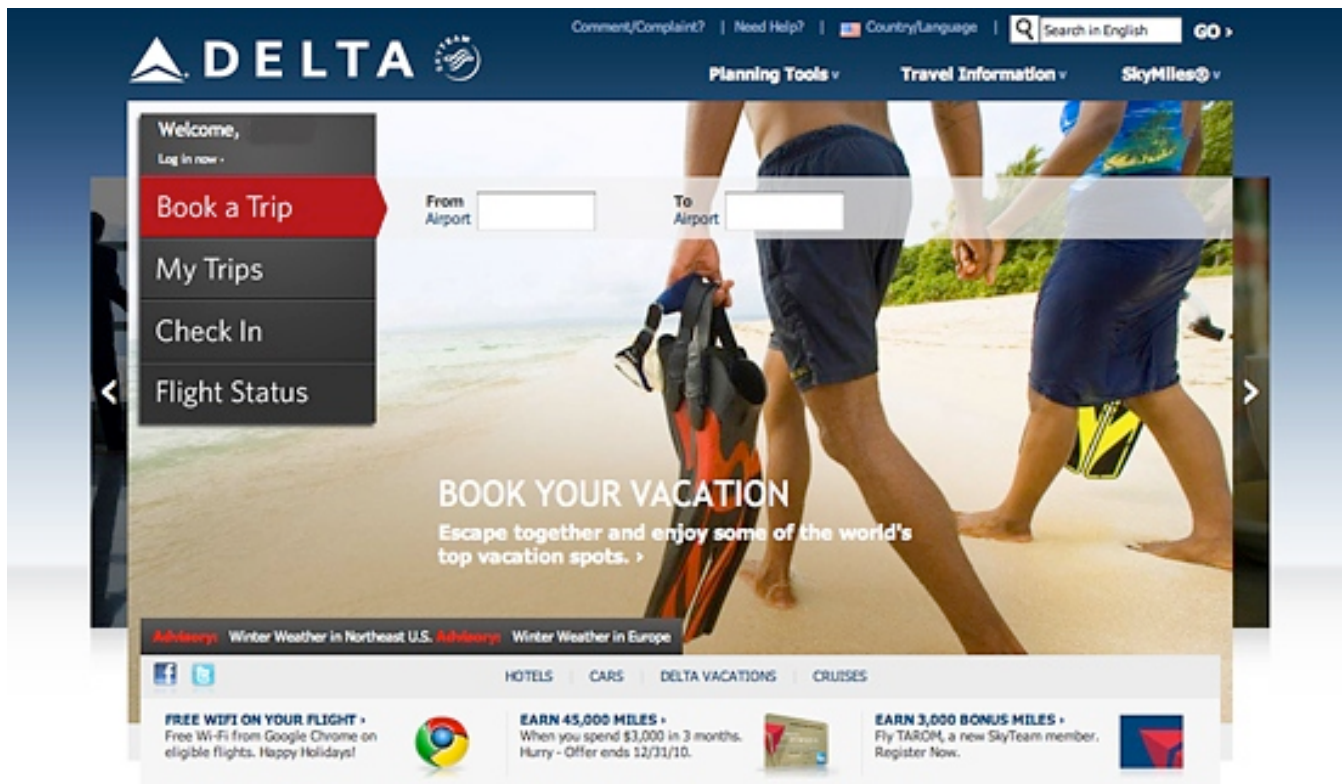
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Apply while the offer lasts

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Smashing eBook | Best of Smashing Magazine | 307



Delta Airlines' website.

Looking at these individual airline websites, rather than comparing them on a design matrix, can lead to a less design-oriented and more feature-focused conversation.

Step 2: Determine Your X and Y Axes

Narrowing down a design direction to two attributes can be uncomfortable for those of us accustomed to creative briefs that list a litany of brand attributes to guide our design. How often have we heard that a design should be "clean," "inspiring," "warm," "engaging," "approachable" and "trustworthy"? How do we even accomplish just two of these attributes? And if we must choose only two, how do we decide?

Understand that a design matrix is not intended to limit the final design to two attributes. That would be almost impossible. It is intended to illustrate the two most important attributes for taking the website design to the next level and differentiating it from that of competitors.

To determine your X and Y axes, ask yourself the following questions:

- Of all the brand's attributes, what will make this client stand out from the crowd? Which design traits reinforce those brand attributes?
- What are the competitor websites' strengths and weaknesses?
- What does the design need to do better in order to accomplish the website's goals?

The X and Y axes should not be nearly synonymous (for example, "warm" and "engaging"), nor should they be mutually exclusive ("innovative" and "traditional"). There should be a slight tension between the two attributes.

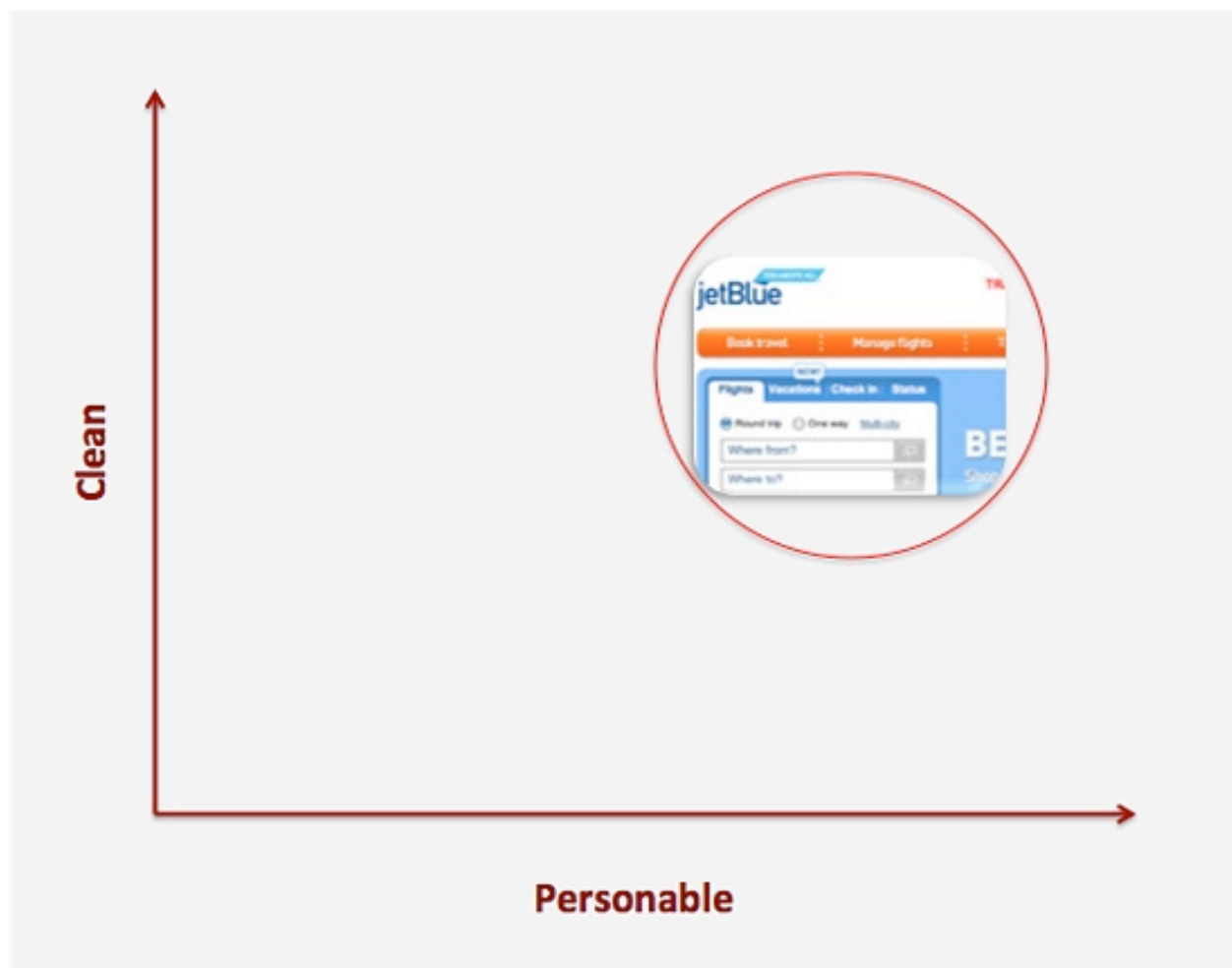
The airline websites, for example, are ranked according to how "clean" and "personable" their designs are. There is a slight, but not negating, tension between these two attributes. Clean websites can come across as cold if they don't have a distinctive voice or warm color palette. Personable websites are often less functionally organized. Achieving a high ranking for both attributes is a worthy challenge, and stepping up to that challenge will definitely create a distinctive website.

You might find that you change the labels of your axes as you place the websites on the matrix (see step 3), but the above process should get you pretty close to determining what the final axes should be.

Step 3: Play a Little

You know the competitors. You have a clear idea of what is important, brand- and design-wise. You have determined your x and y axes. It's time to try some things out.

Place all of the websites on your matrix as you would rank them off the top of your head. As you begin to place them, you will most likely rearrange some as you compare them to others. This is a natural part of the process because the matrix shows relationships as well as individual rankings.



I was influenced by Jet Blue's overall branding and so originally ranked its website's personality fairly high. Later, when I compared it to the Delta and Virgin America websites, I revised the ranking.

Design matrices do not have to be limited to ranking competitors. They can also show a client's website's position among affinity brands (i.e. brands with a similar "feel" and customer base). Mini USA and Apple, for example, might be considered affinity brands because they both exemplify modern design and appeal to similar customer types.

Step 4: Get Serious

Things will take shape fairly quickly, but there is a final step before declaring your design direction matrix done and dusted. Before sharing the matrix with the client team, make sure you can defend it. Show it to others in your agency and see if they agree with your placement decisions. Ask these key questions:

- Do my axes represent the two most important design attributes?
- Can I clearly articulate why I placed each website where I did?
- Will the redesign be able to get the website to the top-right corner? If not, what is holding it back?

If you answered yes, yes and yes (or yes, yes and yes *if* we do a certain thing...), then your website design direction matrix is ready to share with the client.

Creating Buy-In With Design Matrices

Everyone loves talking about design, but with everyone talking, we don't always hear other ideas. If you show a client a design matrix before creating the initial comprehensives, then you will visibly and quantifiably show that you are on the same page; and because of that, you'll likely be successful in the long run.

The design matrix will clearly show which websites you think best capture the desired attributes and where the current website falls into the mix. It is a tangible foundation for a conversation about design.

Invite the client to participate actively in this stage of the design process. Clients usually want to feel like they have had direct input in the design, and designers always prefer that the input comes sooner in a high-level, directional form (“The design feels cold”), rather than later in an overly specific form (“Make that element blue”).

Discuss the following questions:

- Does the matrix address the two most important design attributes?
- Do we all agree on the placement of competing and/or affinity brands?
- Do we all agree on the placement of the client’s brand?
- If we end up in the top-right corner, are we where we want to be?

Using a design matrix can be risky, mainly for one reason. Some clients have difficulty prioritizing the two most important design elements, and then they dig their heels in and declare that there are in fact four equally important elements. Hopefully, the matrix demonstrates how your choice of attributes distinguishes the website. If you meet with a lot of resistance, just create two matrices or conduct a competitor review (as discussed in step one).

Be prepared to explain your rationale and defend your position — but also be open to suggestions. Maybe there are good reasons to focus on different attributes, or maybe the team feels that the placements of some website are not quite right. Revising a design matrix is much easier than revising a design.

Truly Going The Distance

Creating a design matrix is a great first step, and getting client feedback is an awesome second step, but the most important step is to use the matrix as a resource as you design and when you present your designs to the client.

Ultimately, the purpose of a design matrix is to move a website design in the right direction. Specifically, move it to that space in the upper-right corner that represents the best of both worlds. As you design, continually refer to the matrix and see where your new iterations might fall on it.

Think about these questions as you design, and take notes for upcoming presentations:

- Do the new iterations embody the key attributes?
- Are they better than the competing and affinity brands?
- How do they accomplish the design goals?

When presenting designs to a client, review key findings and recommendations made during the discovery phase. Before presenting your designs, review the matrix with the client, and revisit the matrix at the end of the presentation to show that progress has been made.

Training Wheels: A Step-By-Step Overview Of A Design Matrix For Cannondale

The following walk-through illustrates the design matrix process in its entirety and addresses the kinds of decisions that need to be made when creating a matrix. The exercise below is entirely theoretical. I do not work,

nor have I ever worked, for any major bicycle manufacturer, including Cannondale. Thoughts about what design attributes Cannondale might strive for are purely my opinion. Thoughts about competing website design attributes are informed by looking at their websites and general industry expertise — just as yours will be.



How would you create a design matrix for Cannondale? (This example is purely illustrative.)

Step 1: Understand

For the purposes of this exercise, let's assume that Cannondale has chosen you to redesign its website. Your first step will be to understand its brand, its competition and the desired attributes of its new website. Let's also assume that you left the initial discovery meeting with this information:

-
- Cannondale's key competitors are Trek, Giant, Diamondback and Fuji.
 - Its brand is about performance, innovation and a superior craftsmanship that inspires riders.

When you ask about the desired design attributes, Cannondale's representatives say the website should capture the sense of elation that comes with a successful bike ride. They also want the website to showcase technical innovation, dedication to quality and devotion to the individual rider. Your notes read, "inspiring, innovative, technical, individual, quality."

Step 2: Determine Your Axes

The X and Y axes reflect the client's most important and desired design attributes, but do look at competing websites before naming the axes; they will inform your direction and give you ideas about what would be distinctive.

Upon viewing the competitor websites, I found both Trek's and Fuji's to be "immersive" and "powerful," with clean, bold imagery. Fuji's was slightly colder and more "technical." Diamondback has an inspiring home page, but the website loses steam and doesn't showcase the individual bikes distinctively. Giant has a strong focus on teams and individual riders and helpful bike selection tools, but the design is flat.

So, how does all of this play into naming the axes and creating the matrix? Going back to your note about desired design attributes, we see that Cannondale wants to showcase technical innovation, which Trek and Fuji do well on their websites; Cannondale wants to inspire, which Trek and Fuji do through immersive imagery; unlike Giant, though, Cannondale doesn't want to focus on racing.

At first, it may seem that “inspiring” and “innovative” would be good axes names, but those attributes don’t have quite enough tension. They are not synonyms, but there is no balance either. “Inspiring” and “quality” may come to mind, but “quality” is not a design attribute; it’s something the client wants to showcase (it’s an attribute of the product, not the design).

I chose “inspiring” and “technical” for the desired design attributes. “Inspiring” works because the client wants to inspire riders. “Technical” is a good second attribute because it captures innovation and product quality while striking a balance with “inspiring.” There is a healthy tension between the two words. Capturing both emotion and technical detail is difficult. Accomplish that balance and you’ll leave the competition in the dust.

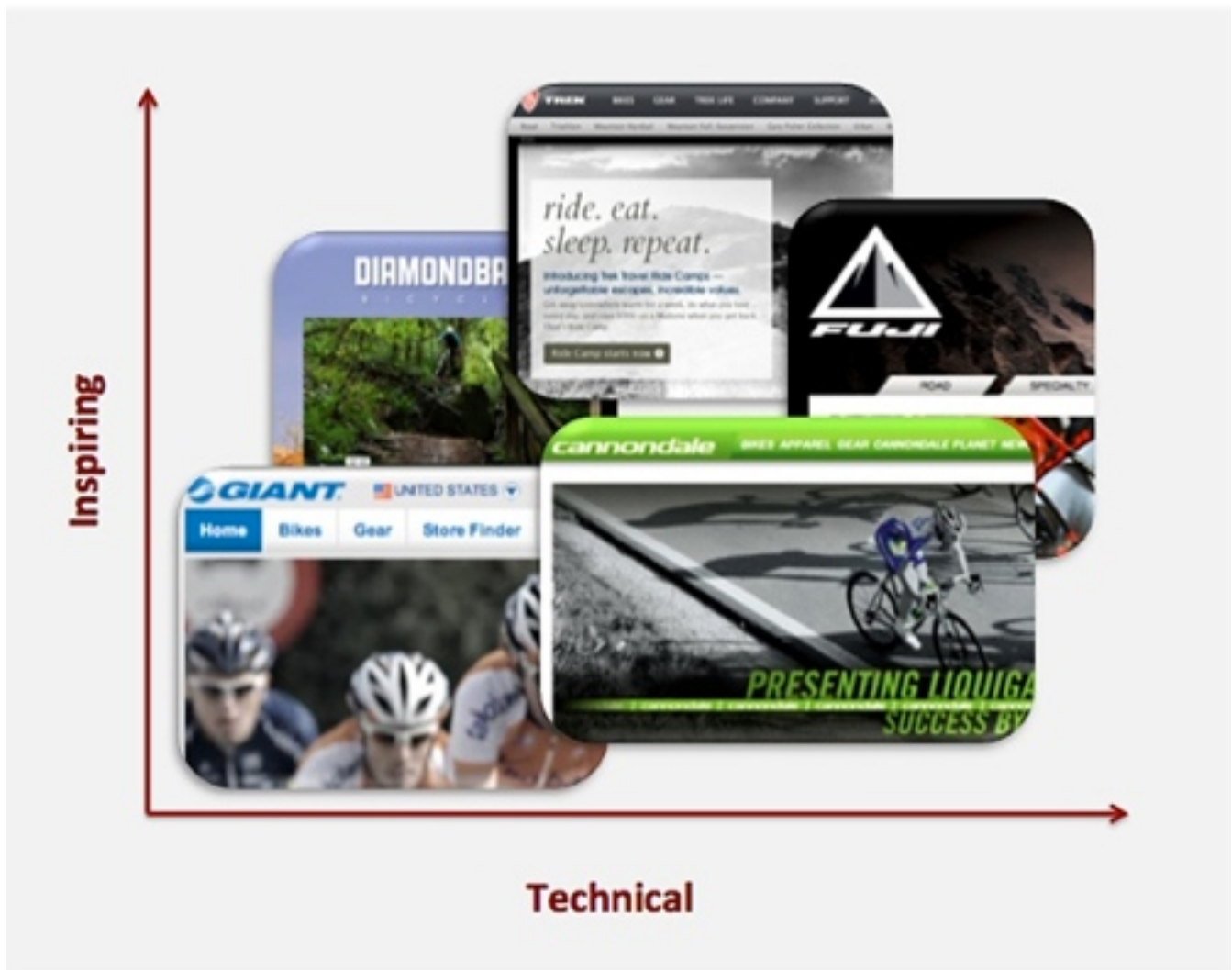
Step 3: Place Websites on the Matrix

I always start by plotting all of the websites roughly where I think they fall on the matrix, and then I move them around as I consider the relationships between the websites.

I originally placed Cannondale’s website in the lower-left corner but, as I compared it to the other websites, I realized that it’s actually more technically focused than others, including Diamondback and Giant. That said, the Trek and Fuji websites are still more technical, with their bold product showcases and detailed imagery.

Inspiration-wise, the current Cannondale website seems to be on par with Giant’s: there is imagery of bikers, but it feels flat and diminutive. Diamondback’s immersive home page raises it a bit above the others. Trek’s warmth and voice put it in the lead for inspiration. I originally had Trek in the upper-right, but I ultimately decided that Fuji’s website has a more technical feel to it.

The final matrix (below) is informative on many levels. It shows where Cannondale currently is and where the websites are that it needs to surpass in order to get to where we determined it needs to go. Naturally, the final design will have a unique flavor, but looking at the competing designs will partly uncover how to get there.



A design matrix informs the path of the design process.

Step 4: Consensus

This is a purely illustrative example, so I did not show this to a team (or the client) for feedback. Typically, feedback focuses on the desired design attributes (“Is this where we want to go?”) and the placement of all of the websites on the matrix. The most important thing is to agree on direction, of course, and then to determine the goal. The hard part is to design a website that gets there.

Step 5 (the Big One): Using It

The last step is not so much a step as a big stride. Once you’ve created the matrix, the important part comes: using it to create a better website. Make a copy for everyone involved in the project (including those in other disciplines) and have them put it up somewhere to serve as a daily reminder and motivator.

Refer to the matrix as you design. Are the decisions you are making moving you toward the upper-right? For example, if you were choosing images for the Cannondale website, ask yourself relevant questions:

- Is this image inspirational?
- Does it convey the technical expertise of Cannondale?
- How can the design be more inspiring?
- How can I better convey the technical passion of the brand?

As mentioned, revisiting the matrix when showing comps to the client will help justify your approach, but the real reason to create a matrix isn’t to sell comps or do a fun exercise during discovery; rather, it is to remind us of the

path we are on. We could take so many directions, and going down a road that looks good but doesn't take you where you want to be is all too easy.

Think of your design matrix as a compass. It's not as precise (or cold) as a GPS; it's an old pocket compass that wobbles a bit as you walk but still gets you to the summit.

Do's And Don'ts

The beauty of design matrices is that they provide a new way to look at competitors and a tangible foundation on which to begin discussions with clients. They also enable you to play a little as you tweak the axes' names and the websites' placement to get them just right. There is wiggle room in the methodology and application, so have fun with it. That said, there are a few set guidelines worth adhering to for success:

- **Don't be afraid to experiment.**
- **Do get your ducks in a row.** Verify the desired design attributes and the competitor and affinity brands with a client before proceeding, so that the matrix is relevant.
- **Don't base your insights on home pages alone.** A website's design is more than the home page. Your matrix might use a home page screenshot, but include it only if it represents the overall design of the website.
- **Do share your toys.** Get team input about the placement of websites on the matrix. It's not an altogether scientific approach, but be as objective as possible.
- **Don't carve it in stone.** Be open to recommendations from clients. Changing a matrix is easier than changing a comp.

-
- **Do use it to sell your work.** Present the matrix as part of your comp presentation in order to explain your rationale and sell your comps.
 - **Don't matrix and run.** Don't abandon the matrix after the discovery process. Refer to it regularly.

Enjoy the process of creating a matrix and of seeing opportunities to design a distinctive website for your client.



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Why User Experience Cannot Be Designed

By Helge Fredheim, March 15th, 2011

A lot of designers seem to be talking about user experience (UX) these days. We're supposed to *delight* our users, even provide them with *magic*, so that they love our websites, apps and start-ups. User experience is a very blurry concept. Consequently, many people use the term incorrectly. Furthermore, many designers seem to have a firm (and often unrealistic) belief in how they can craft the user experience of their product. However, UX depends not only on how something is designed, but also other aspects. In this article, I will try to clarify why UX cannot be designed.

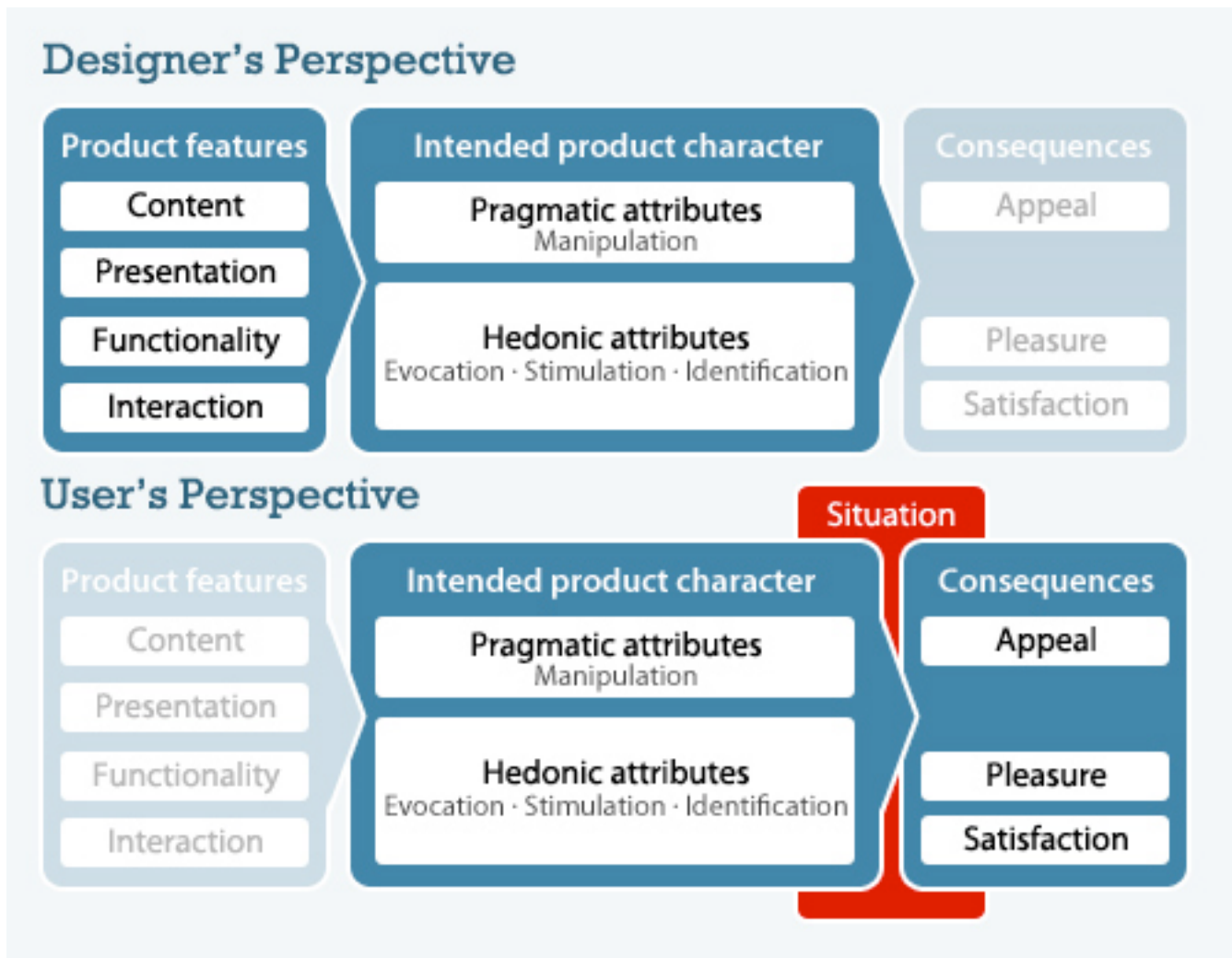
Heterogeneous Interpretations of UX

I recently visited the elegant website of a design agency. The website looked great, and the agency has been showcased several times. I am sure it delivers high-quality products. But when it presents its UX work, the agency talks about UX as if it were equal to information architecture (IA): site maps, wireframes and all that. This may not be fundamentally wrong, but it narrows UX to something less than what it really is.

The perception might not be representative of our industry, but it illustrates that UX is perceived in different ways and that it is sometimes used as a buzzword for usability (for more, see Hans-Christian Jetter and Jens Gerken's article "[A simplified model of user experience for practical application](#)"). But UX is not only about human-computer interaction (HCI), usability or IA, albeit usability probably is the most important factor that shapes UX.

Some research indicates that perceptions of UX are different. Still, everyone tends to agree that UX takes a broader approach to communication between computer and human than traditional HCI (see Effie Lai-Chong Law et al's article "[Understanding, scoping and defining user experience: a survey approach](#)"). Whereas HCI is concerned with task solution, final goals and achievements, UX goes beyond these. UX takes other aspects into consideration as well, such as emotional, hedonic, aesthetic, affective and experiential variables. Usability in general can be measured, but many of the other variables integral to UX are not as easy to measure.

Hassenzahl's Model Of UX



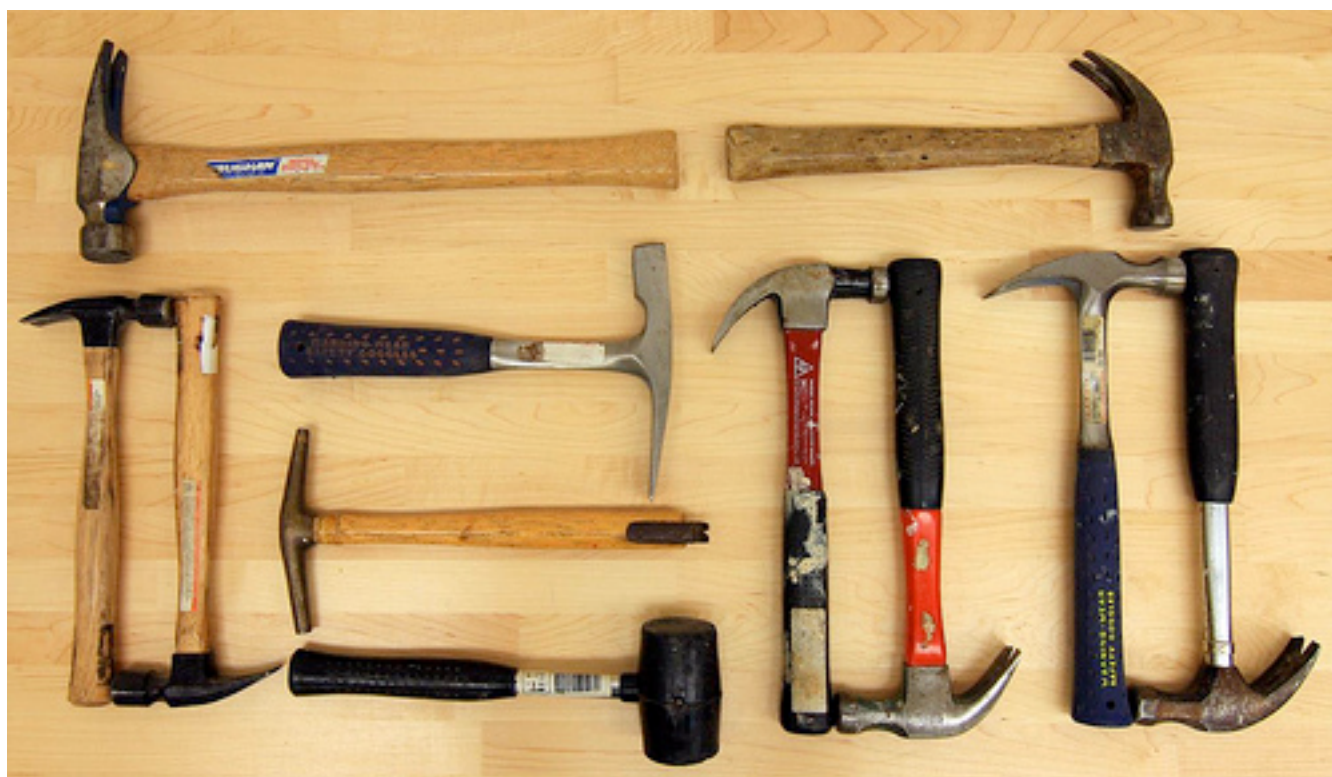
Hassenzahl's "Model of User Experience".

Several models of UX have been suggested, some of which are based on [Hassenzahl's model](#). This model assumes that each user assigns some attributes to a product or service when using it. As we will see, these attributes are different for each individual user. UX is the consequences of these attributes plus the situation in which the product is used.

The attributes can all be grouped into four main categories: manipulation, identification, stimulation and evocation. These categories can, on a higher

level, be grouped into pragmatic and hedonic attributes. Whereas the pragmatic attributes relate to the practical usage and functions of the product, the hedonic attributes relate to the user's psychological well-being. Understanding the divide can help us to understand how to design products with respect to UX, and the split also clarifies why UX itself cannot be designed.

Manipulation



Hassenzahl explains the hedonic and pragmatic qualities with a hammer metaphor. The pragmatic qualities are the function and a way for us to use that function. However, a hammer can also have hedonic qualities; for instance, if it is used to communicate professionalism or to elicit memories. (Image: [Velo Steve](#))

In this model, the pragmatic attributes relate to manipulation of the software. Essentially, manipulation is about the core functionalities of a

product and the ways to use those functions. Typically, we relate these attributes to usability. A consequence of pragmatic qualities is satisfaction. Satisfaction emerges if a user uses a product or service to achieve certain goals and the product or service fulfills those goals.

Examples of attributes that are typically assigned to websites (and software in general) are “supporting,” “useful,” “clear” and “controllable.” The purpose of a product should be clear, and the user should understand how to use it. To this end, manipulation is often considered the most important attribute that contributes to the UX.

Identification

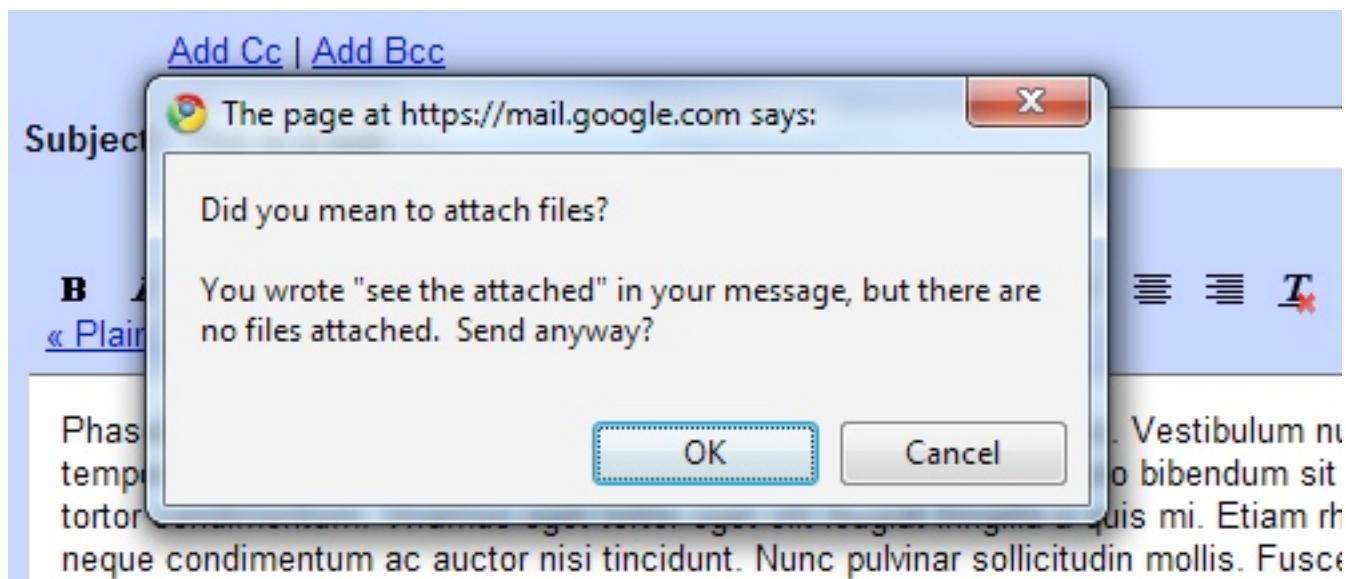
Although manipulation is important, a product can have other functions as well. The first of these is called *identification*. Think about it: many of the items connected to you right now could probably be used to get an idea of who you are and what you care about, even though some of them would be more important or descriptive than others. The secondary function of an object is to communicate your identity to others. Therefore, to fulfill this function, objects need to enable users to express themselves.

The growth of social media can be explained by this identification function. Previously, we used personal websites to tell the world about our hobbies and pets. Now, we use social media.

Facebook, blogs and many other online services help us to communicate who we are and what we do; the products are designed to support this identification need. MySpace, for example, takes advantage of this identification function; it allows users to customize their profiles in order to express themselves. WordPress and other platforms let bloggers select themes and express themselves through content, just as users do through

status updates on Facebook, Twitter and all the other social platforms out there.

Stimulation



Gmail notifies users when they forget to attach a file to an email.

The [Pareto principle](#), also known as the 80-20 rule, states that 80% of the available resources are typically used by [20% of the operations](#). It has been suggested, therefore, that in traditional usability engineering, features should have to [fight to be included](#), because the vast majority of them are rarely used anyway.

This is necessarily not the case with UX, because rarely used functions can fill a hedonic function called stimulation. Rarely used functions can stimulate the user and satisfy the human urge for personal development and more skills. Certain objects could help us in doing so by providing insights and surprises.

From this perspective, unused functions should not be dropped from software merely because they are used once in a blue moon. If they are kept, they could one day be discovered by a user and give them a surprise and positive user experience. As a result, the user might think “What a brilliant application this is!” and love it even more.

In fact, this is exactly what I thought (and [found myself tweeting](#)) when Gmail notified me that I had forgotten to attach the file I’d mentioned in an email. If you do a Twitter search for “[gmail attachment](#),” you’ll probably find many [others who feel the same](#).

Furthermore, I think “Pretty cool!” when YouTube enhances its presence by modifying its logo on Super Bowl Sunday (or Valentine’s Day). I also discovered something new when MailChimp’s monkey whispered, “Psst, Helge, I heard a rumor...” and linked me to a [Bananarama song](#) on YouTube. There are many examples, but the best “stimulating” functions are probably those that are unexpected but still welcome (like the Gmail notification).

Evocation



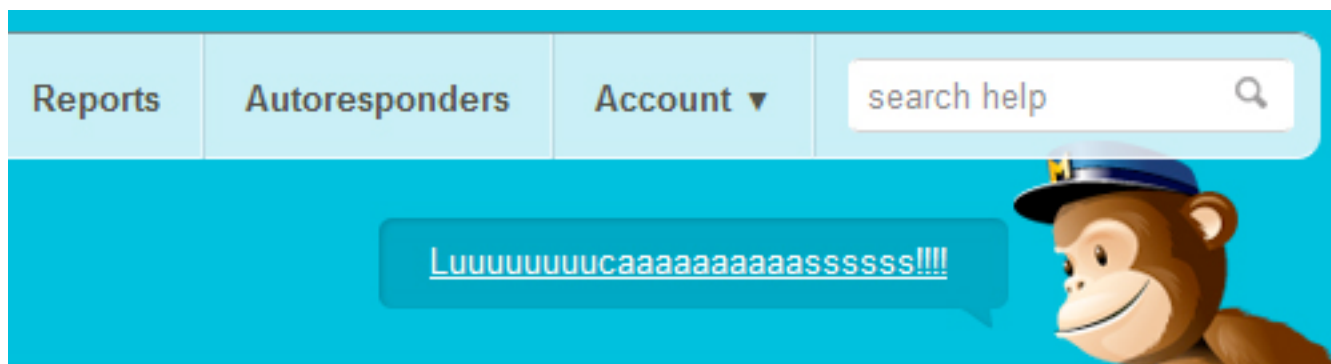
Souvenirs tend to have weak manipulative qualities, but they can be evocative when they elicit memories. (Image: [meddygarnet](#))

The fourth function that a product can have, according to [Hassenzahl's model](#), is evocation, which is about recalling the past through memory. We enjoy talking and thinking about the good old days (even yesterday), and we want objects to help us with this. Even weird, dusty and practically useless souvenirs (with weak manipulative qualities) have evocative function because they help us to recall the past.

In design, we can certainly give a website a vintage look and feel to remind us of our childhood, high school or the '60s... or the '30s. But even websites with a modern and minimalist design can have evocative attributes. For instance, don't Facebook and Flickr (by way of their users and your friends)

provide you with a huge number of pictures from the past, some of which are highly evocative?

Thus, UX Cannot Be Designed



The MailChimp monkey's words will probably appeal to some users more than others.

Having said all this, why is it argued that UX cannot be designed? It's because UX depends not only on the product itself, but on the user and the situation in which they use the product.

You Cannot Design the User

Users are different. Some are able to easily use a website to perform their task. Other simply are not. The stimulation that a product provides depends on the individual user's experience with similar products. Users compare websites and have different expectations. Furthermore, they have different goals, and so they use what you have made in different modes.

Think about it: when judging the food and service at a restaurant, you will always compare what you experience to other restaurants you have been to. They have shaped your experience. Your companions compare it to their previous experiences, which are certainly different from yours. The same

goes for software, websites and apps. Evocative qualities vary even more, simply because all users have a unique history and unique memories.

You Cannot Design the Situation

UX also depends on the context in which the product is used. A situation goes beyond what can be designed. It can determine why a product is being used, and it can shape a user's expectations.

On some occasions, you may want to explore and take advantage of the wealth of features in WordPress. In other situations, the same functions may make things too complex for you. On some occasions, you may find it totally cool that the MailChimp monkey tells you randomly that, "It's five o'clock somewhere," but in other cases it would feel entirely weird and annoying, because you are using the application in a different mode.

Furthermore, UX evolves over time. The first time a user tries an application, they may be confused by it and have a slightly negative experience. Later, when they get used to it and discover its wealth of features and potential and learn how to handle it, they might get emotionally attached to it, and the UX would become more positive.

We Can Design *For* UX



Are roller coasters fun, thrilling and exciting or just breathtakingly scary? It's hard to tell. (Image: [foilman](#))

Many designers label themselves “UX designers.” This implies great confidence in the capabilities of the designer; it suggests that the user experience can be designed. But as explained, we cannot do this. Instead, we can design *for* UX. We can design the product or service, and we can have a certain kind of user experience in mind when we design it. However, there is no guarantee that our product will be appreciated the way we want it to be (again, see Hassenzahl). We can shape neither our users’ expectations nor the situation in which they use what we have designed.

It is certainly possible to have a fairly good idea of the potential ways a user will judge what we make, [as Oliver Reichenstein points out](#). Movies, rhetoric

and branding demonstrate as much: they predict certain experiences, and they often achieve their goals, too.

However, a thrilling movie is probably more thrilling in the theater than at home, because the physical environment (i.e. the situation that shapes the UX) is different. In the same way, the effectiveness of an advertisement will always depend on the context in which it is consumed and the critical sense and knowledge of the consumer (i.e. the user's prior experience). The commercials are designed to elicit certain experiences, but their level of success does not depend solely on the commercials themselves.

The difference between designing UX and designing *for* UX is subtle but important. It can help us understand and remind us of our limitations. It can help us think of how we want the UX to be.

It has been suggested, for instance, that UX is the sum of certain factors, such as fun, emotion, usability, motivation, co-experience, user involvement and user engagement (for more, see Marianna Obrist et al's article "Evaluating user-generated content creation across contexts and cultures"). In turn, we must address some of these factors when we design *for* UX, depending on how we want our product to be perceived. If we want an application to be fun, then we need to add some features that will entertain; a joke, a challenging quiz, a funny video, a competitive aspect or something else. We should keep in mind, however, that, as designers, we can never really predict that the application will be perceived as fun by the user. Users have different standards, and sometimes they aren't even willing to be entertained.

Extra Credit: How To Design For UX



Peter Morville's "Facets of User Experience." (Image: [Semantic Studios](#))

Understand UX

If we want to design for UX, then we need to understand what UX is all about. For example, knowing which variables make users judge a product might be advantageous, and Hassenzahl's UX model is one such model for this.

Other models have been suggested as well, such as Peter Morville's "[seven facets of user experience](#)." Here, UX is split into useful, usable, desirable, findable, accessible, credible and valuable. As you may have noticed, these

facets fit Hassenzahl's model pretty well: useful, usable, findable, credible and accessible could all be considered as pragmatic (i.e. utilitarian and usability-related) qualities, while desirable and valuable would qualify as hedonic (well-being-related) qualities.

As mentioned, UX has also been viewed as the sum of particular *factors*. Other models have been suggested as well, some of which are linked to at the bottom of this article.

Understand Users

Following this, we need to understand our users. Traditional methods are certainly applicable, such as user research with surveys, interviews and observation. Also, personas have been suggested as a means of designing for UX, as have UX patterns. Smashing Magazine has already presented a [round-up of methods](#).

Exceed Expectations

Finally, give users what they want — and a little more. In addition to enabling users to use your service effectively and efficiently, make them also think, “Wow, this application is genius.” Exceed their expectations desirably. If you do so, they will use your website or app not because they have to but because they want to.

Dear Web Design Community, Where Have You Gone?

By Vitaly Friedman, March 21st, 2011

As Web craftsmen, we are living in exciting times today. The frenetic pace of evolution in our industry has created remarkable opportunities for our work. Our established set of design and coding practices is more comprehensive than it has ever been before. Our designs are becoming more usable, our code more scalable, our layouts more responsive. In fact, just by comparing our design processes to those from a decade ago, it's remarkable to observe how quickly we've developed and honed our craft over all these years.

However, the maturity of our industry is far from being complete. While producing a myriad of technological advancements, we have outpaced other developments along the way. These developments aren't related to the lack of cross-browser standards support or technical downsides of the tools we are using. No, they have a different nature. They have emerged within our design community — a community which is now so fertile and diverse that it is becoming increasingly difficult to ensure its professional maturity.

In fact, there are many issues that require a thorough, profound discussion within our industry, yet they are not properly discussed for one reason or the other. This article is based on my recent, often unrelated, observations of our community. It features my personal opinion on the problems we need to tackle and conversations we need to start to ensure its healthy evolution.

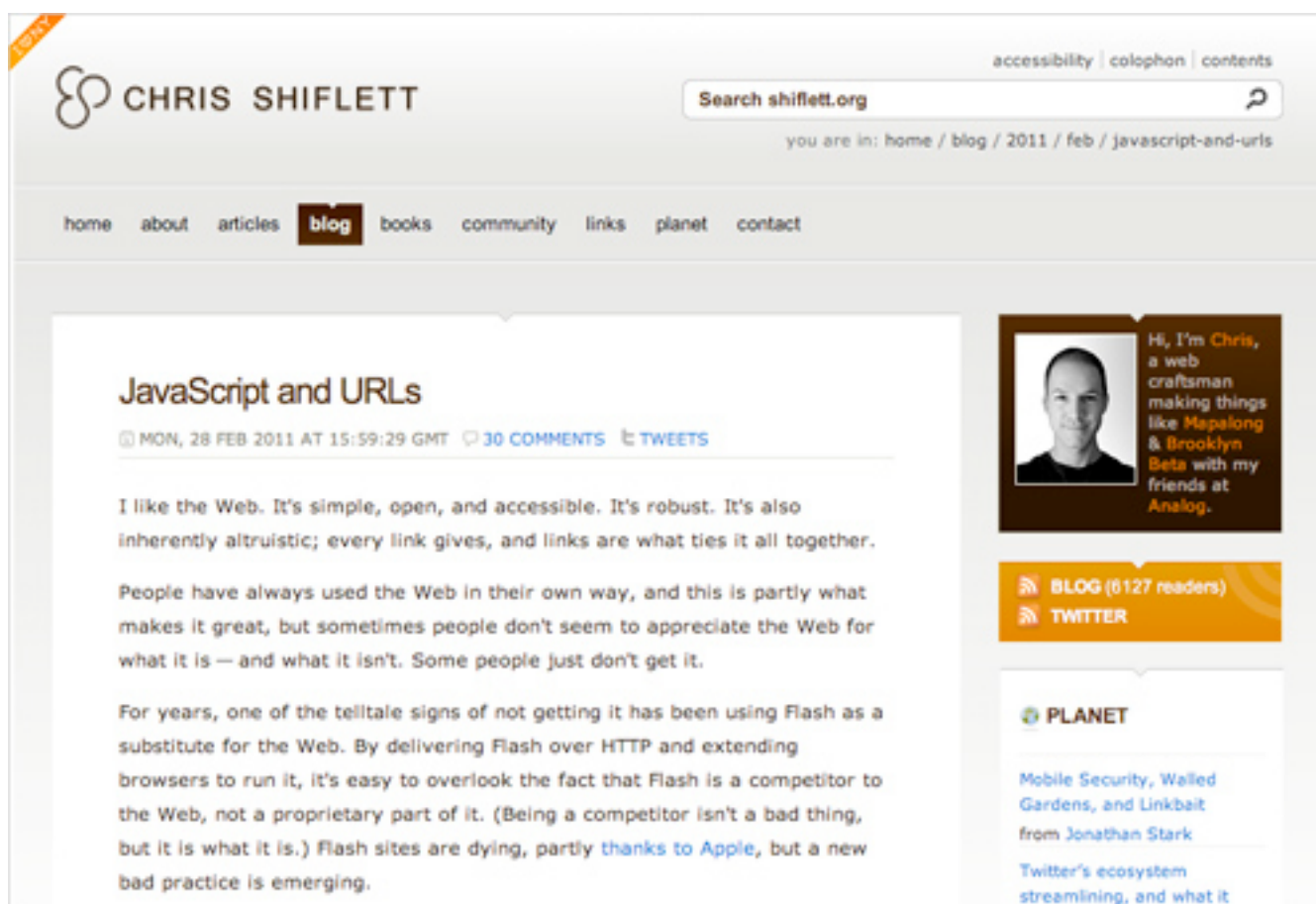
Where Did The Community Spirit Go?

I was very lucky to have experienced the development of the Web design community from its early days on. As a passionate newcomer to the industry, I was captivated by the sense of enthusiasm that seemed to be flourishing everywhere and spurring everyone. It was a strong and genuine feeling that was sparkled among dozens of sites and magazines and fueled by the motivation of experienced and non-experienced designers. The community was reasonably small and therefore very welcoming and supportive, so everybody was perfectly fine with asking lengthy questions and providing detailed answers.

I clearly remember in-depth discussions with hundreds of meaningful, engaged comments, in which designers would thoroughly analyze the techniques presented and suggest improvements or alternatives. I remember having experienced print and digital designers writing articles and teaching inexperienced designers the obscure details of and practical tips about the new craft. I remember vivid debates spreading from one site to another, connecting designers and building professional relationships in the community.

These discussions still take place today. There are many more designers and developers out there encouraging these discussions. The remarkable work of people like Paul Boag, Dan Mall, Jeffrey Zeldman, Francisco Inchauste, Chris Coyier, Simon Collison, Andy Clarke, Paul Irish, Chris Heilmann, Jeffrey Way, Trent Walton and many others is a vivid manifestation of the tremendous care and dedication of designers and developers to our industry. There are literally thousands of talented folks out there who are writing articles and releasing wonderful new tools and resources for all of us to use. That's great. That's great because all of these contributions bring our community much further.

However, every now and again I can't help but realize that the number of active contributors *with knowledge and experience* hasn't increased proportionally to the overall magnitude of our growing community. Way too often I find it extremely difficult to find meaningful debates spanning over the whole community — debates that would create a strong echo and prompt us all to revise, extend or adjust our practices and hence become better professionals.



The [recent hashbang debate](#) is an excellent example of community-wide discussions that our community could use.

Way too often do I come to the conclusion that this remarkable, inspiring enthusiasm we once had is now gone. What remained are stranded cliques

of passionate designers who lead design discussions privately and separately, often unnoticed by the vast majority of the community.

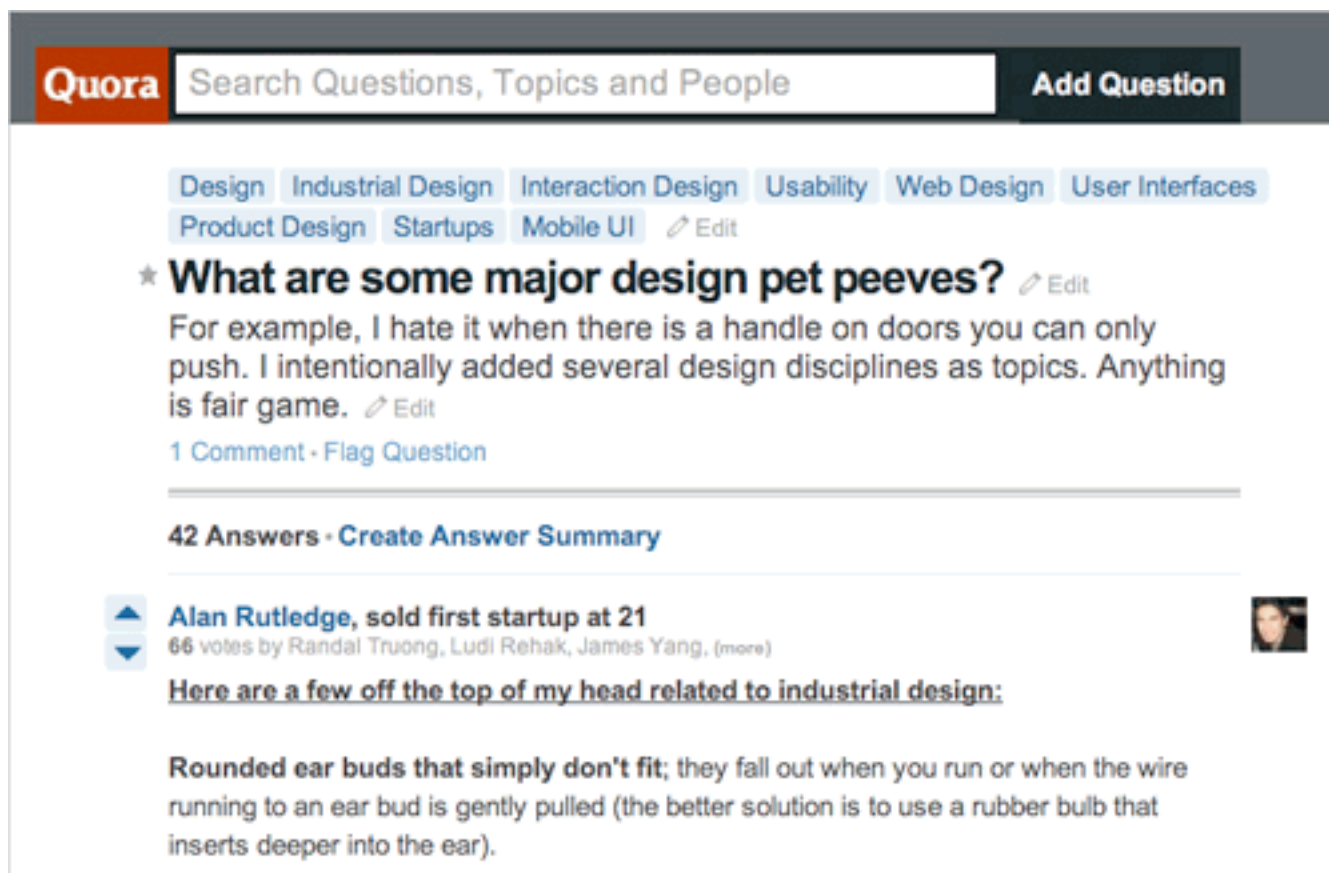
The tragic irony is that although we are probably one of the most connected professional communities out there, it seems that we are increasingly not connecting. It's not that we've become just a bit too comfortable with the processes we've developed over the years nor that we don't care about improving our design and coding skills. In dialogue with our readers and colleagues at conferences or even online, I've become confident that this development has entirely different roots.

Finding Time to Contribute

Since there is so much going on the Web these days, it seems only reasonable that many of us might experience difficulties finding time to actively engage in professional discussions. Personally, I am just as guilty as the next guy, as I find it extremely difficult to read more than 5–7 design pieces a day — not to mention commenting on any of them. I'm trying to challenge myself to be more responsive and engaging. Sometimes it works, sometimes it doesn't, but I have firmly committed to this change and maybe — just maybe — so could you.

I believe that the lack of time is one of the reasons for our changed behavior online. Our emails have become shorter, and so are our blog posts and comments. Our interest has become much more difficult to enrapture, and so we've become more passive and less critical. We way too easily consume and accept ideas, designs, concepts out there, sometimes without even questioning their validity and correctness. Instead of debating, we agree; instead of criticizing, we accept — or simply click away and ignore

the discussion altogether. And this is the reason why many conversations in the community do not get a critical mass of interest.



Web design discussions on [Quora](#) and [StackExchange sites](#) are wonderful examples of websites that we have already started using to exchange ideas, ask questions and conduct valuable design discussions.

The worrying part is that the number of the *less experienced* active contributors has increased exponentially. Due to that, I am afraid that the community is not led in the right direction. The true leaders — professional, knowledgeable designers and coders — are busy. Busy with their work or perhaps they feel that it's no longer worthwhile for them to spend much time contributing. I hope this attitude can change. We need more professionals to find time to contribute and help to teach others. After all,

so many of us are self-taught. And where would we be today without the contributions of others?

We need more meaningful and helpful discussions within our community. Finding time is difficult, but we don't have to jump into writing or commenting with both feet. An occasional comment, tweet, reply or short blog post about whatever it is we've learned or thought would already help; it might just as well invoke thought-provoking discussions by other members of the community. As artisans of the Web, we love to discuss things that are important to us — be it design, coding, writing or anything else. We might have no time for profound writing, but we certainly have enough time to suggest an idea and encourage our friends to join in the discussions. Taking just a couple of minutes every day to think about the craft we love will bring us further and accumulate the wisdom within our community.

Francisco Inchauste summarized this point nicely in one of our recent conversations: "Everyone has a perspective and experience to share. Without more perspectives, we'll become limited in our growth. The community is only as strong as our weakest people. To improve, we need to lift others up by helping to educate and guide."

We Need to Curate Valuable, Meaningful Resources

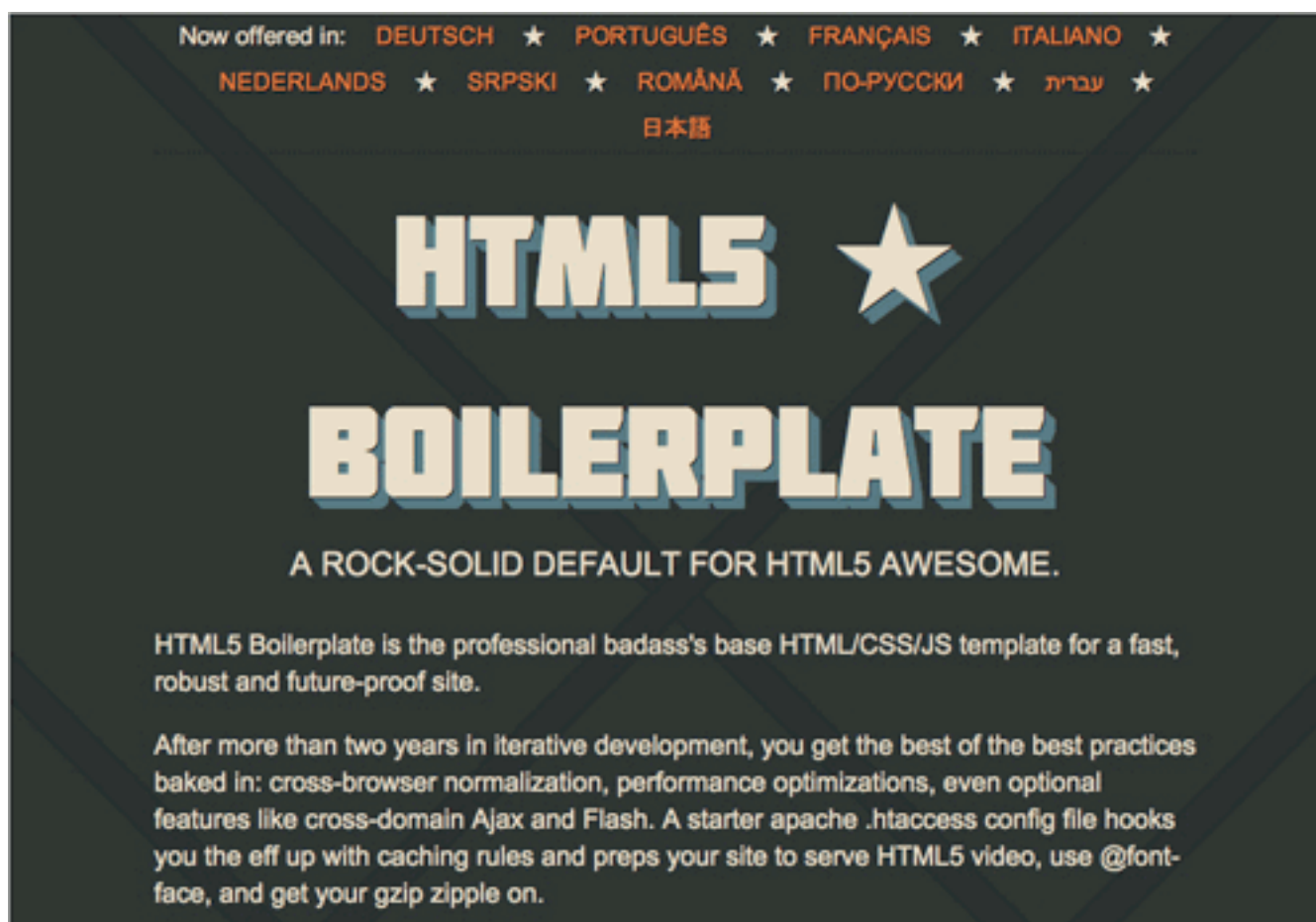
Probably the easiest way to jump into design discussions would be by observing and replying to the tweets marked with the hashtag `#design`. Well, that's what I thought before adding the `#design` column on my Tweetdeck a couple of weeks ago. After a couple of days of occasional scanning of tweets in that stream, I did find a couple of interesting discussions; however, more often than not I stumbled upon loud, inaccurate

and promotional tweets which led to tutorials, freebies or inspirational websites.

Don't get me wrong: I have nothing against these resources per se, but I don't quite understand why we, multi-talented, versatile craftsmen of the Web, are restricting the use of such a powerful medium as Twitter primarily to these resources. Why don't we use it for meaningful discussions as well? Have we somehow become blindfolded by pure eye-candy or tremendous technological opportunities we have now with jQuery, CSS3 and HTML5? We are experimenting with visual and interactive enhancements in our tutorials and our designs, yet we tend to forget about the fundamentals of our work — our design principles, the quality of our processes and the integrity of our creations. We could all benefit from writing and talking about the ways we work, the decisions we make and the solutions we come up with.

Just compare finding a jQuery slideshow plugin against finding a practical resource on UX design patterns. Or finding a social media icon set against finding detailed case-studies written by experienced designers. Valuable, useful resources are becoming rarities and unfortunately many of them just do not get the attention they well deserve.

We need to support and curate the creators of thought-provoking and valuable resources and help them maintain and support these resources. We need to support them because they are the ones that raise questions and seek for answers; they are the ones that support the maturity of our profession; they are the ones that are not afraid to question status quo and encourage experimentation, sharing and innovation — the so needed attributes of our exploding industry.



[HTML5 Boilerplate](#) is a remarkable example of a cooperation of dozens of Web designers who share their thoughts and insights to create something useful for all of us to use. Unfortunately, many useful projects on Github do not manage to get such strong community-wide support.

We can use our communication channels wisely and invite our colleagues and friends to join in the discussions, sharing opinions and spreading the word about those of us who truly dedicate their time and effort to produce useful, valuable resources. I am certain that by doing so, we'll be able to unleash the remarkable potential for a strong and supportive exchange of ideas and expertise.

The emerging conferences like [Fronteers](#), [Brooklyn Beta](#) and [New Adventures in Web Design](#) show very well which benefits a strong

community has: it is inspiring, helpful, forward-thinking, challenging. I will never forget the moment when I was sitting among the attendees during one of the conference's talks and my neighbor turned to her colleague and whispered, almost mindlessly: "I feel that these talks are going to change my views of design forever". I'd love to experience this feeling in our online discussions, too.

Community-Wide Discussions and Polls

There is so much content out there so that our focus is distributed among dozens of resources and discussions every day; it's not easy to see *how exactly* we could lead large community-wide discussions. A blog's audience is usually limited by its RSS-subscribers, random visitors and social reach of the blog owner. Spreading the word in social circles outside this audience might work to some extent, but it usually won't help reach the vast majority of the community, especially if the blog is relatively small or obscure.

We need to have some sort of a mechanism that would connect like-minded designers and developers which are not already connected via other media. Twitter's hashtags are a good example of ways how we are already trying to solidify exchange of ideas and thoughts. But we can make it better.

So what if we had a consistent standard in place? We could strengthen these exchanges through hashtags by developing and having the community adapt some common tags to use en masse. For instance, `#design_type`, `#design_layout`, `#design_js` and others. We could even conduct community-wide polls (`#design_poll`) that could be easily recognized and retweeted by users with smaller as well as larger followship, thus spreading the word and strengthening the active participation within

the community. We could have a website tracking these hashtags, presenting the most popular discussions and filtering spam and other malicious activities.

The same mechanism could be used for supporting valuable design resources and their creators as well as passionate designers who write insightful articles or produce useful resources. When elaborated properly, this approach will make it easier for us to connect and participate in large, community-wide discussions. These discussions might even spread beyond the limits of our community, providing a different perspective on our conversations by professionals from other industries.

So What Exactly Should We Be Discussing?

As Web designers, we've come a long way. We've shaped a new, strong industry and developed professional design processes. We also have learned a lot on our journey — be it some bits of psychology, copywriting, marketing or other related disciplines. If you think about it, that's already a massive achievement, and so we have a damn good reason to be proud of what we have contributed to all these years altogether.

However, like in any other industry, we need to permanently revise our practices, innovate and improve our design processes. In fact, there are a number of things that might need to be extended and reconsidered. Let's cover the not-so-obvious ones.

Our Professional Vocabulary

As mentioned above, when it comes to Web design, there are always so many different disciplines and professions involved, that it is becoming

increasingly difficult to make sure that everybody involved is on the same page in terms of vocabulary used in our discussions.

Misunderstandings between designers, developers and stakeholders are the running joke in our community. And there is a reason behind it: the vocabulary we are using has dramatically evolved over years — it was primarily expanded, sometimes with abbreviations and concept titles which are counter-intuitive or misleading. We have applied terms from print design to Web design; we have coined new terms for new concepts and methodologies; we have introduced terms that might have become outdated today (think of the outdated [floppy disk](#) symbol for the “Save” icon). The result is a quite sloppy and inconsistent vocabulary — we often have various terms describing one concept, or one term describing various concepts.



SEARCH BROWSE

Boilerplate

Mindless filler; standard, formulaic text to be reused in documents; a film based on a picture book that J.J. Abrams may produce.

Please review the "Legal Provisions Relating to IETF Documents" and RFC5378 to discover the new boilerplate text that is now required.

[Unsuck It](#) explains terrible business jargon in plain words. Hopefully, we won't need something like this for the design community as well.

For instance, there are design attributes that we call 'responsive', 'adaptive' or 'flexible', but what exactly do we mean when we apply them? Different designers might even have a different idea on what they mean with the word "design"; is it visual design, design as a concept or maybe UX design? And what is UX exactly anyway? The same problem occurs when we discuss terms such as "HTML5", "page", "fold", "navigation" and others. Just imagine how devastating the results would be if any other professional industry, e.g. medicine, wouldn't have a common vocabulary for its technical terms?

At the *New Adventures in Web Design Conference* last month, Dan Rubin talked about this very issue, saying that the industry as a whole needs a

common grammar and vocabulary. He asserts that the ones we have now, were perhaps somewhat hastily chosen. And that with some careful thought and planning, we can design a much more accurate vocabulary to help avoid the confusion which can stem from the existing one.

We could use more precise and intuitive terms which would be based on certain concepts that are familiar to us and other professionals. As Dan noticed, “responsive design”, coined by Ethan Marcotte, is an excellent example of such a term. It derived from the concept of “responsive architecture” which explores how physical spaces can respond to the presence of people passing through them. So instead of creating unchanging spaces that define a particular experience, they create spaces in which inhabitants and structure can — and should — mutually influence each other.

Applied to Web design, it means that we could treat our designs (very much like these spaces) as facets of the same experience. The concept can be easily explained and understood. It’s not too technical, it’s not too abstract and it’s not chosen randomly. It is rational, visual and memorable which are all excellent qualities for a term describing a new design approach.

Perhaps we could create a standardized design language which would accumulate our vocabulary and provide us and our stakeholders with a consistent and unambiguous terminology for our discussions. Finding a common vocabulary is a challenging task and it’s an ongoing process that would need permanent revisions and updates.

Our Design and Coding Practices

Actually, we need to refine more than our design vocabulary: our design and coding practices require regular revisions as well. Faced with new design requirements in our regular work, we keep conquering design problems and exploring appropriate solutions for them. These activities are the driving force behind learning; they heavily influence the decisions we make once we approach similar design problems in the future. This is what makes us experienced professionals.



[Method and Craft](#) is an excellent website where professional designers and developers are sharing tips about their workflow and design processes. This is a goldmine for newcomers to the industry.

We learn something new every single day. We discover a new CSS trick or a new UX tweak. An obscure Photoshop technique or a beautiful font pairing. Our convenient coding techniques are gradually dating as browsers become more capable and so we discover that certain browser hacks are no longer necessary. We find new ways of how certain common conventions could or should be adjusted. All these small things we discover in our daily routine help us improve our skills and workflow. Actively exchanging thoughts and methodologies with your colleagues will mutually benefit and improve the overall design and coding practices.

We shouldn't be afraid of asking challenging questions or posing bold statements. If you feel that we should all stop using CAPTCHAs, then [say so](#) and explain your rationale behind the argument. If you think that there is a way to reinvent scrollbar, [say so](#) and explain *how* exactly you imagine this technique to work and *why* it's better. And if you are struggling with a personal problem and would like to hear how the community members managed to solve it, [say it](#), too — it's very likely that other members of the community have had similar problems and will be glad to join the discussion and help out.

Our Professional Ethics

Saying "no" can be extremely difficult sometimes, especially when personal or financial incentives are at play. However, as professionals, we owe it to ourselves and to our projects to not get enticed by offers and suggestions that do not wholeheartedly coincide with our intentions and objectives. The former can bring temporary benefits, but if applied consistently, the latter will bring long-term benefits.

We need to become more aware of the ethics that we should be following while designing, coding, writing, editing and publishing on the Web. The times when soulless copy-pasted press releases were used “as-is” across online publications are long gone, so let’s stop doing that. Cheap generic stock photos neither visualize nor support the article, so let’s stop using them, too. Professional publications often use “nofollow” attribute to block link-droppers from gaining Google’s link juice; and most users will not click on links titled “Milestone Professional Web Design Agency”, so let’s stop doing it as well. There are many similar examples which we can use to adapt, and optimize our online behavior accordingly.

The screenshot shows the homepage of the website 'Ethics & Web Design' by Robot Regime. The header is a dark red bar with the site name 'ROBOTREGIME' on the left and 'subscribe to rss' with RSS and Twitter icons on the right. The main content area has a light gray background. On the left, there's a sidebar with the title 'ETHICS & WEB DESIGN' in large, bold, dark gray letters. Below it, a quote reads: 'I think ethical standards are important. The purpose of this site is to provoke discussion about the role of ethics in web design. If you care about ethics, please share your ideas.' The sidebar is divided into two sections: 'TOPICS' and 'UPCOMING TOPICS'. Under 'TOPICS', there's a list of six items, each with a red bullet point and a red title: '1.0 AN OVERVIEW OF ETHICS', '2.0 ETHICS AND THE DESIGNER-CLIENT RELATIONSHIP', '3.0 DON'T MISREPRESENT YOURSELF TO THE CLIENT', '4.0 GIVE THE CLIENT WHAT THEY WANT', '4.1 YOU DON'T HAVE TO GIVE THE CLIENT WHAT THEY WANT', and '5.0 HIDDEN BUDGETS AND FAIR PRICING'. Under 'UPCOMING TOPICS', there's one item with a red bullet point and a red title: 'MAKE CONTENT ACCESSIBLE'. The main content area features a 'FEATURED POST' section with the title 'AN OVERVIEW OF ETHICS' in bold red letters. Below the title, there's a red quote: 'Many times unethical behavior is justified as being a necessity, when in actuality the motivation is just short term gain...at the expense of the client and the reputation of our profession.' This is followed by two paragraphs of text in black. The first paragraph discusses the day-to-day life of web professionals and the challenges they face. The second paragraph discusses the importance of reputation and how it is determined by how others perceive us.

ROBOTREGIME

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ETHICS & WEB DESIGN

I think ethical standards are important. The purpose of this site is to provoke discussion about the role of ethics in web design. If you care about ethics, please share your ideas.

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FEATURED POST

AN OVERVIEW OF ETHICS

Many times unethical behavior is justified as being a necessity, when in actuality the motivation is just short term gain...at the expense of the client and the reputation of our profession.

In the day to day life of web professionals, we are sometimes asked to do things that go against our better design judgement or that run afoul of our moral instincts. Independently, what we decide to do in each of these situations is relatively inconsequential. But if you look back and sum up the outcomes of each of these incidents...what does the pattern of behavior reveal?

Our reputation is determined by how others perceive us. This is especially true in business, where brand and reputation are inseparable. Regardless of what our role may be, whether it's that of a developer, an IA, a Content Strategist or the head of an agency, as a part of this industry we must remain cognizant not only of what our actions say about us, but also of how it reflects upon the the profession.

The website [Ethics and Web Design](#) is a valuable resource which covers the fundamentals of professional ethics in our industry.

As content creators, we often depend on advertising, and that's sometimes the necessary evil that we need to accept to be able to monetize our dedicated writing efforts. And there is nothing wrong about it. However, we need to set clear limits to how the advertising can and how it cannot be presented on our websites. For example, text link advertising and sponsored posts should always be clearly marked as such. We should have a strict separation between content and advertising. Each of us could design a set of personal principles for his or her websites (*publishing policy*), publish these rules online and stick to them no matter what. This way the readers will respect you and appreciate the simple fact that you are strongly committed to quality work.

We could benefit from being more critical about our content and the way we present it online. It means paying more attention to copy, consistency of our writing style, quality of images and image captions, design of code snippets etc. These details give our writing a different tone; they empower our thoughts and make the content more trustworthy and reliable. Why don't we make our work more challenging by trying to make every article we publish at least a tiny bit better than the previous one? We could try not to just "put stuff out there", but curate our delicate ramblings, making sure that every published article has the highest level of quality that we can afford for it. A style guide can be helpful in this case, especially for larger websites.



[Photoshop Etiquette Manifesto](#) is a website listing helpful and subtle suggestions to organize your Photoshop documents — making the transfer of them less painful.

In Web design it means to stop using [anti-patterns](#) — design patterns which are created specifically to trick our users. Instead, we should respect and advocate for our audience and protect their interests. Think about building loyal, honest, authentic user base for your own project or your client's brand and think about the quality of relationships you create with each user.

Not only should our designs be usable for our visitors, but also our code should be maintainable for developers. Just like with content, you could come up with your set of standards which you'd like to follow in your work,

make it public and stick to it. Make it your final checklist item before you hit that “Publish” or “Commit” button. That’s what will make people look up to you and respect your work.

Bottom line: we should strive for *responsible* Web design that not only embraces best design and coding practices, but also respects our publishing policies, protects the interests of our users and supports the professional work of our colleagues.

Our View of Web Design Trends

As professionals who care about producing beautiful, top-notch products for the Web, we love to explore innovative design and coding techniques. We love to take them apart and put them together again, learning about their potential during the process. We love to discuss them with our colleagues and keep them in mind for upcoming projects. The more other designers use these techniques, the more important they become to us. Among ourselves, we start to respectfully call them *trends*.

Nevertheless, trends can be dangerous and misleading beasts. They give us an exciting feeling of having a valuable insight that most of our colleagues don’t have yet. We feel fortunate to have discovered one early enough to use it effectively before it becomes common practice. Trends are precursors of the “next big thing,” and so we pay attention to them.

I can’t help but think that trends seem to be spectacularly overrated in our industry. Often they are regarded as bulletproof solutions, respected and universally accepted for the simple reason that they are innovative and widely used (think of drop shadows or text shadows, for example). I believe that we tend to adopt trends too quickly, often getting carried away by their originality rather than understanding their purpose. This should not be

the case. Trends are not a panacea for all of the problems we encounter, and often they don't even provide an optimal solution for the situation in which they were used in the first place.

Not to say that trends are unimportant, though. They *are* important, especially when they foster innovation and make us reconsider our design decisions. They can challenge us to be more effective and more thoughtful in our designs. Yet they inevitably fail in one particular regard.



We can learn a lot simply by examining obscure websites out there, such as [Mospromstroy](http://mospromstroy.ru), the website of an industrial construction company in Moscow. The code is far from optimal, but the website itself reveals some interesting design decisions.

One thing I've learned to love over the last year is thoroughly examining unfamiliar foreign websites; Russian and Korean websites, to be specific. I feel inspired and empowered just going through them, creating wireframes from them, exploring their interaction patterns and analyzing the source code. I love wondering about the decisions that the designers must have made and the rationales behind those decisions. However, I can only speculate about them; ultimately, I cannot know the context in which these decisions were made.

This lack of context is the main reason why design trends should be approached cautiously. If we don't know *why* a certain technique was used, then we need to properly test and validate it before applying it into our own designs. This is the part of the process that I find is often missing in discussions about trends.

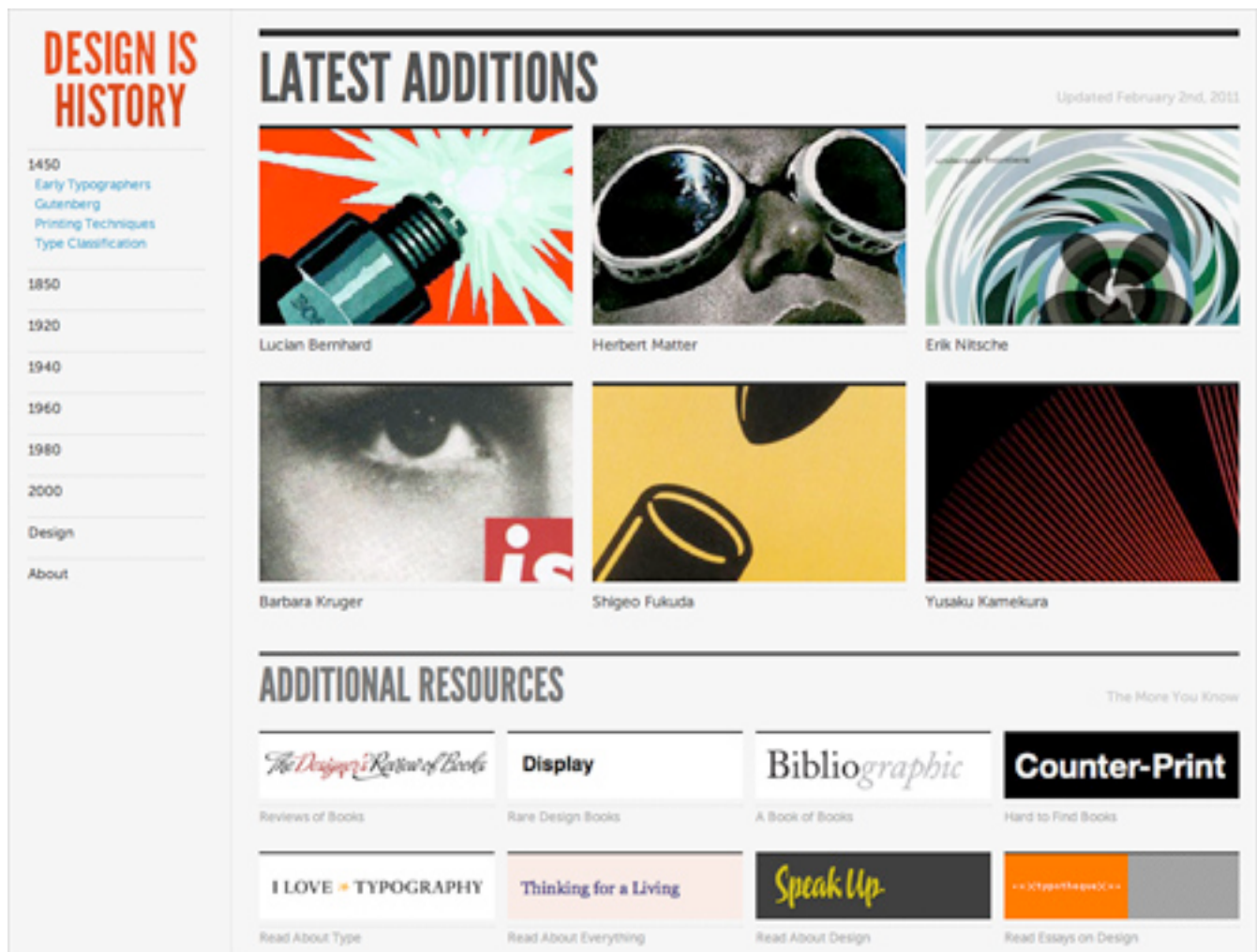
We should observe and analyze trends but not consider them as finished "off the shelf" solutions. Instead of following them, we should be confronting them, improving on them and [replacing them with our own](#). Adding elements to our designs merely for the sake of visual or functional interest is counter-productive. We should rather aim for designs that serve their purpose independent of volatile trends. Why not focus on approaching trends responsibly; building on them when they add meaning to a design and ignoring them when they do not fit the contextual scope of the design problem. This would make our websites original, well-formed and timeless.

Learning From The Past

While trends tell us what designers are doing now, we could expand our skills by drawing on our heritage, too. As designers, we are essentially

problem-solvers. We analyze existing problems, learn the given objectives and requirements and then start searching for meaningful solutions. However, initially, it is not a clever visual nor technical approach that we are looking for. We are looking for an *idea*.

At this stage, what helps us most is our experience and creative thinking. And this is exactly where our rich history of visual communication is particularly useful. By studying lessons from the past, we can better understand how ideas and techniques have emerged and evolved over time. We can learn what approaches other professionals have taken to solve the problems facing them — problems that we still might be struggling with today or will in the near future.



Websites like [Design Is History](#), [Smart History](#) and [Graphics Atlas](#) are all excellent resources on the history of graphic design, visual communication and the evolution of design processes. We can learn a lot about our craft by exploring them thoroughly.

Andy Clarke's talk at the *New Adventures in Web Design* conference was intriguing and pointed out the need for designers to learn about the importance of storytelling in Web design. Andy shared a unique perspective in his presentation, saying that we can shape how users not only interact with content, but consume it in general. He drew a comparison to comic books and Western movies from the 1960s, which used various techniques to dictate the pace of how their information was

consumed — be it through a stretch of silence in a movie or the shapes of panels in comic strips.

We could use this technique in our designs to keep readers in the grip of our content just a little longer. Instead of letting users not have to think, we could do the opposite and engage as well as intrigue them (a good example would be of the [Ben the Bodyguard](#) website).



[Ben The Bodyguard](#) keeps you on the site longer than you expect.

We shouldn't hesitate to apply concepts from other time periods or other media into our designs. The concepts actually don't even have to be design-related. Instead of thinking in terms of shadows, gradients and rounded corners, maybe we should be thinking in terms of tension, timing and narrative.

Next time you're looking for an idea, pick up that book you've always enjoyed reading and read it with a different perspective. Then, search for any unusual points of view that might be worth bringing to the forefront in your next project. Once you've found one, grasp this moment, as this is the very second when a unique, innovative design is born.

In Conclusion

As our industry matures, so will our practices and the quality of our work. We may have successfully solved many important problems in our short history, yet there is still much to be done. Writing and talking about the ways we work, the decisions we make and the solutions we come up with will benefit each of us. We could explore the connections between our discipline and other established industries as well as revise and reinforce our professional vocabulary and our ethics.

Perhaps we could all dedicate 10 to 15 minutes of our time to the community every day. We could (and should) make this a firm personal commitment and encourage each other to take part. Find some time to leave a meaningful comment, support a valuable resource, write a short article about what you've learned. All of these contributions matter and will prompt meaningful and inspiring discussions. For starters, we could start raising awareness of our commitments by using the hash tag `#wdcommunity`.

I strongly believe that if we keep doing this every single day, we'll wake up one day marveling at how remarkable our community has become. I, for one, am eagerly looking forward to this day.

Huge thanks to Francisco Inchauste, Chris Shiflett, Nishant Kothary, Paul Scrivens, Andy Clarke, Dan Rubin and others for their valuable contributions and suggestions for this article.

Make Your Content Make a Difference

By Colleen Jones, April 12th, 2011

Content, content, content. It's an obvious part of any interactive experience. In fact, you've probably heard content is king, or queen, or some sort of royalty. Yet, content is elusive. Often, you don't realize your content isn't cutting it until it's too late. Does any of this sound familiar?

- Delayed projects
- Broken designs
- Uneven voice
- Low-performing landing pages
- Dead social media channels
- Customer confusion and service calls

These problems and more are [documented extensively](#), so I won't dwell on them. What I *will* dwell on is the solution. But, first, let's discuss the false ones.

Beware Of False Solutions

Just because someone articulates a problem well does *not* mean someone knows the solution. That's when we're susceptible to a false solution. In my many years of experience, I've found these two fake solutions to be very common, very distracting — and very disappointing.

SEO (Search Engine Optimization) Snake Oil

Oh, poor JC Penney. This major retailer fell victim to SEO snake oil, such as buying extensive link placements and other “black hat” techniques. And, JC Penney fell hard, with a detailed and brilliant exposé of the situation [making The New York Times](#), no less.

Now, besides avoiding embarrassment, I suggest that you avoid SEO snake oil because it will not bring you results. The spirit of a search engine is to find quality content. A search engine algorithm factors in signs of good content. When someone focuses on tips and tricks to game search engines instead of publishing quality content consistently over time, that person is missing the spirit of SEO. And, sooner or later, that person’s results will suffer for it. Google might punish the website or, more likely, the website will get the wrong kind of traffic, or visitors. If you drive lots of visitors to your content instead of *attracting* visitors who are interested in the content topics, you will be disappointed with the results.

And, now, a big caveat: I don’t think all SEO is bad. There are legitimate SEO concerns, techniques and advisors. Just remember that SEO tricks are not magic pills for your content ills. If you’re spending lots of time and money on SEO but not much on content, you’re on the way to disappointment.

Andy Budd recently discussed a closely related point of view in his [recent article](#). He requests to “white hat” practitioners to distance themselves from the world of SEO, stop talking about search engine rankings and start helping clients deliver real value to their users. Therefore we should stop defining ourselves by the discovery medium and focus on the content itself, he rightfully argues.

Overpromised Technology

What else is not a magic pill? A technology product or feature alone. I see this false solution most often with larger companies, who put unrealistic expectations on products and tools such as a content management system (CMS), an analytics tool or a web application. For example, a prospective client recently vented to me that his organization spent \$100,000 on implementing a new CMS but absolutely *nothing* on planning and creating content worth managing. The result was a one-person Web team destined to fail with its brand new CMS. This short-staffed team was saddled with:

- managing every aspect of a very large website
- responding to strange or political stakeholder requests for new content and
- dealing with the boss's frustration with the lackluster content

Sounds awful, right? Unfortunately, this situation is too common. And it needs to stop.

The Real Solution

No SEO trick and no technology product *alone* will solve the content problem for you. The real solution to the content problem is hard work that demands change in your (or your company's) approach to planning, designing and developing interactive experiences. That's what gets results. There's no shortcut. And indeed, the path to content that counts is a hard road. But it cannot be the excuse for compromising the quality of experience we provide to our users.

Get Strategic

Content strategy is planning for every aspect of content to get results. That goes far beyond writing the copy. When getting strategic about content, focus on three key areas: *analysis*, *editorial* and *architecture*. While explaining content strategy in detail literally requires a book (or two or three), I'd like to share with you a concise introduction to each area in this article.



Figure 1: Content strategy usually involves analysis, editorial and architecture.

1. Analysis

Analysis is taking a magnifying glass to your content situation. The better you understand it, the better you can plan exactly what needs to change to reach the results you'd like to have. Two typical activities in the analysis phase are a *content audit* and a *context analysis*. Sometimes, these activities are lumped together into a content analysis. The exact term is not that important as long as you do the analysis thoroughly.

Content Audit

An audit is a close review of your existing content. If you have any content to start with, you need to know *exactly* what it is. The audit tells you what you're working with. By the end of an audit, you'll have answers to questions such as:

- What content types, formats and topics do you have?
- What is the quality of your content? (For help, consult this [content quality checklist](#).)
- How is your content structured?
- Where do you have obvious content gaps and overlaps, or redundancies?

When you're ready to try a complete content audit yourself, check out the guide [Content Analysis: A Practical Approach](#).

Context Analysis

A context analysis looks at the elements that surround and affect your content. At a minimum, consider and answer these questions about your goal, your users, and your processes.

Goal

- What is your business or organizational goal? Why?
- How will content help you achieve that goal?

Users / Audience

- Who are your users, or the people you want to attract and influence? Why?
- Where (in what channels) are your users looking for content — on websites, on mobile, on social networks?
- If you have an existing website or interactive experience, how is it performing?

Processes / Ecosystem

- How do you create, maintain and govern content now?
- How do you plan to do so when you launch the website or interactive experience?
- What are your competitors doing in the realm of content?

As a simple example, let's look at American Express' [OPEN Forum](#), a site for small business owners. Why did American Express want to attract and influence these users? Because reaching these users was a step toward their business goal. Mary Ann Fitzmaurice Reilly, SVP of Partnerships & Business Development for American Express OPEN, [notes](#), "...our biggest opportunity is with small business growth — if they grow, we grow." And, American Express decided to help them grow through a unique approach to content. Rather than create more content about their credit cards, American Express decided to create content about small business owner concerns.

We could discuss analysis for days, but I'd like to introduce other aspects of content strategy to you as well. For a more detailed explanation of this analysis, I highly recommend the analysis chapter of *Content Strategy for the Web* by Kristina Halvorson. Also, I shared my step-by-step experience in the presentation [Content Analysis: Know Thy Content](#).

The real benefit of analysis is *ideas* and *insights* for planning content editorial and architecture. So, let's take a closer look at those sides of content, using the OPEN Forum as an example along the way.

2. Editorial

Editorial plans mostly for the *people* side of content, such as:

- What style or voice should your content have to attract and resonate with users?
- What topics and themes should your content cover and when?
- Who is responsible for what content?
- What are your standards or criteria for credible content?

Many businesses and organizations who are not media properties completely lack editorial oversight for their websites and other interactive experiences. That can result in problems ranging from errors to missing a competitive advantage. Let's turn back to our OPEN Forum example. In the world of finance, much content is a combination of dull explanations or legal mumbo jumbo. OPEN Forum takes a different approach.

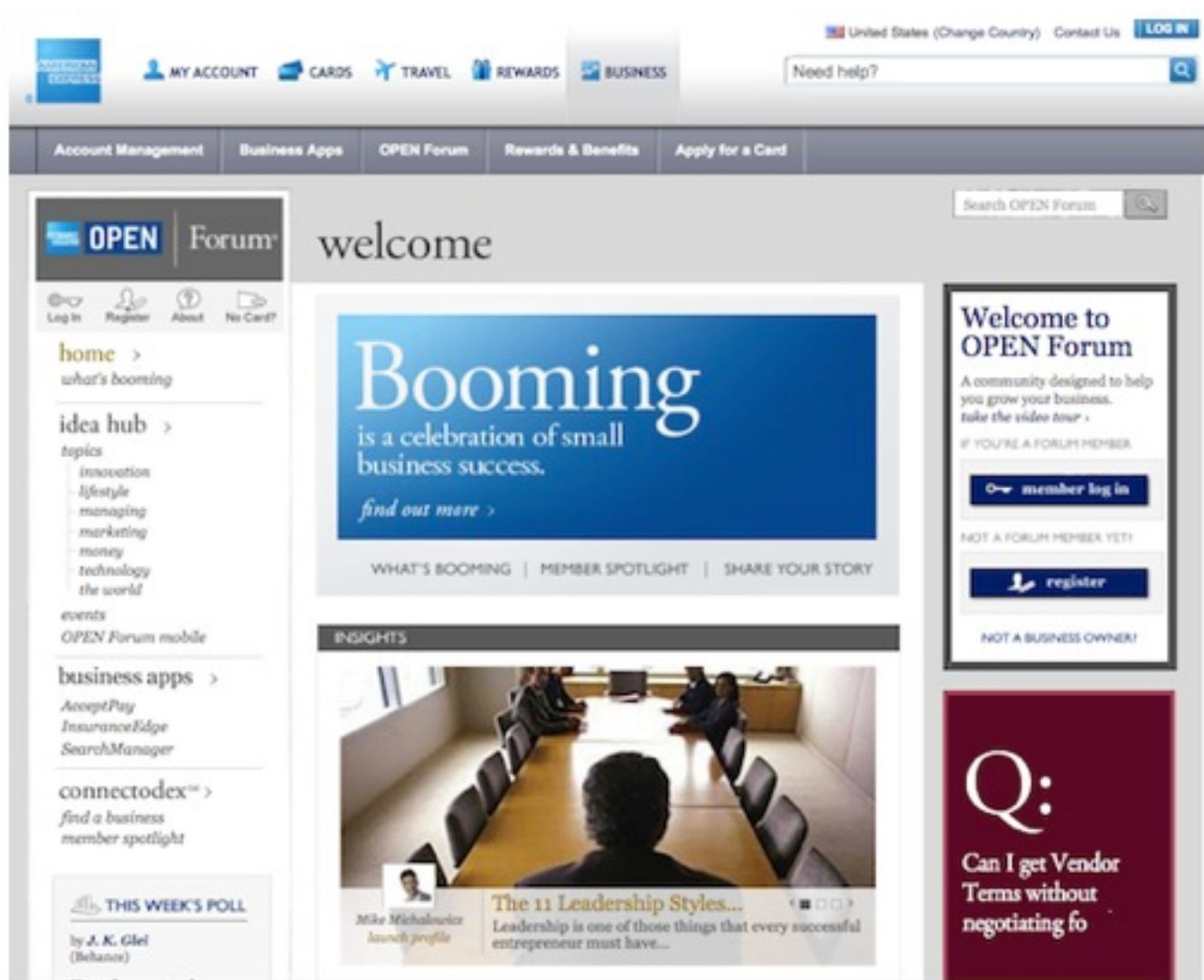


Figure 2: In the stodgy world of finance, American Express OPEN Forum offers a fresh approach to content.

The design might not look dramatically different from other finance sites, but the content is much different. To help small businesses, OPEN Forum regularly offers credible content about topics that *small business owners* care about. American Express produces some content, invited expert columnists create some content, and small business users contribute some content. Even though different authors contribute content, the content is

original to OPEN Forum. Can you notice how different it is from aggregating random content or simply optimizing pushy landing pages? Through its consistent voice and handy content on OPEN Forum, American Express has positioned itself as a trusted advisor to small businesses. Because the articles, videos, and podcasts are deeply useful to small business users, they're far more valuable to American Express.

Of course, having so many content contributors poses some risk of creating content that feels disjointed. To reduce this risk, what's going on behind the scenes? The right editorial staff and processes ensure the content from different authors is coordinated. For example, while most websites lack an editor, OPEN Forum has an editor-in-chief. And, for robust editorial review and production, American Express partners with Federated Media. As you plan your content processes, you will consider what roles to hire in-house and what roles to hire as freelancers.

Besides the right people and processes, editorial planning results in an important tool: the *Editorial Style Guide*. This guide documents important decisions about your content for everyone involved to reference. A style guide typically explains:

- Target audiences / users
- Key messages
- Voice and tone
- Criteria for topics
- Sample content
- Usage, punctuation, and grammar guidelines
- Trademark and legal considerations

For a helpful start, you might want to consider taking a look at [The Yahoo! Style Guide](#).

So, all of this editorial work sounds interesting, but does it actually get any results? [Yes, it does](#). Since 2007, OPEN Forum has built an audience comparable in size and engagement with other small business media properties. But that's not the best result. In the lucrative small business market, American Express's successful editorial approach is a differentiator. More than that, it's a quiet coup. The results did not happen overnight. They took time. But, compared to its competitors, American Express now *owns* small business online.

I know what you're thinking. "But American Express is a big company. Should a smaller one care about editorial?" Yes. A smaller company or an individual can do it on a smaller scale, with less content, fewer contributors, and probably fewer visitors. Editorial is about attracting the right visitors (or audience) and holding their interest through content. Size does not matter nearly as much as quality.

That's a basic introduction to editorial. But, content concerns don't stop here. Now, let's turn to architecture.

3. Architecture

Architecture plans mostly for the *machine* side of content — while keeping the people side in mind. Architecture addresses how your content is organized, structured and repurposed. Architecture gets your content to the right place. This planning might start with a site map but won't end there. You likely will need to define *content models* and *taxonomies* using metadata. In essence, you need to tell your content management system

and other platforms what content you have, where to display it and how to display it.

Let's look at a simple example, again from American Express OPEN Forum. The site has clearly defined templates for its articles, videos and other content types. Those content types come together (or aggregate) as meaningful topic pages. Take a look at this one for innovation. That aggregation happens dynamically because of good architecture.



Figure 3: This topic page brings together all of OPEN Forum's original content about a topic (in this case, the topic is innovation), thanks to good architecture.

When you plan architecture well, you gain other benefits. Both search engines and people will find your content more easily. Your content

becomes more accessible and flexible, not to mention easier and more efficient to keep consistent.

That's some basic architecture. Now, let's kick it up a notch. Is OPEN Forum part of AmericanExpress.com, the core American Express website? No, it's not. Now, that might bother some user experience designers and information architects out there. Shouldn't this be one cohesive experience? Yes, it should. But, that doesn't necessarily mean all of the content has to be in one website or in one place. AmericanExpress.com serves more visitors than small business owners. So, putting all that small business content on AmericanExpress.com could easily get in the way of other visitors. Instead, OPEN Forum and AmericanExpress.com link to each other at relevant points.

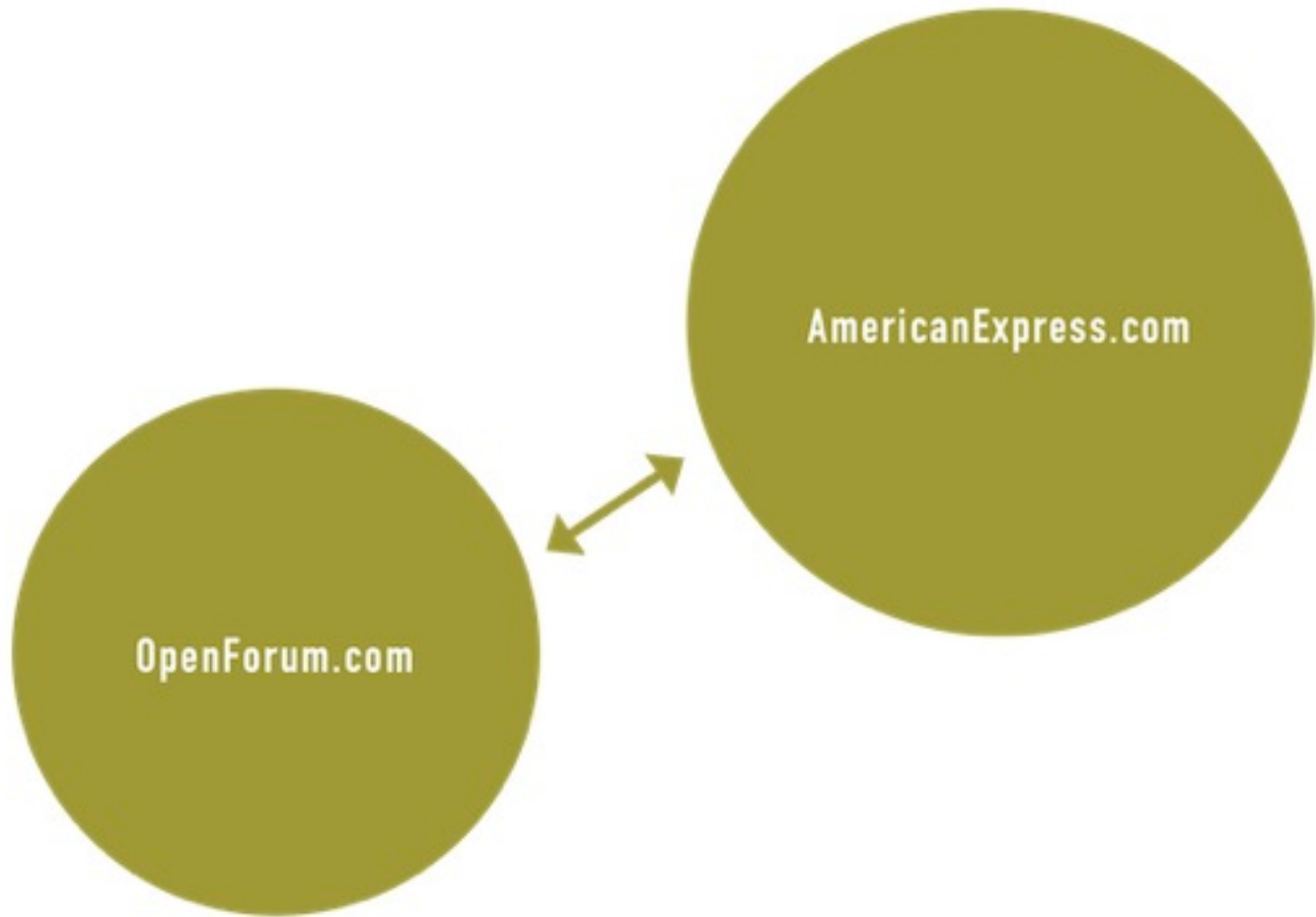


Figure 4: OPEN Forum is not part of the core American Express site.

Okay, now let's kick it up several notches. Content strategy pioneer Rachel Lovinger has articulated convincingly that advanced architecture also makes your content more *nimble* to use across different interactive experiences, from your website to your mobile application. [She notes](#),

"Publishing content that's marked up with smart structure and metadata allows it to be delivered on a wider range of channels, while still retaining the context and relationships that make it meaningful and useful to both your audience [visitors or users] and your brand. Think of it like providing publishing instructions with the content, where each different platform uses only the instructions that are relevant." [\[Source\]](#)"

For example, if your content is structured well, you can offer mobile versions of your content more efficiently, as American Express has. You also will have a much easier time creating widgets or an API to distribute your content, as [NPR](#) did. (See image below.) Does this kind of planning get results? Within 12 months after releasing this API, NPR doubled its users (audience). [Source: The Future of Content: Mobile Strategies for Government (panel). Government Web Content and New Media Conference 2011]

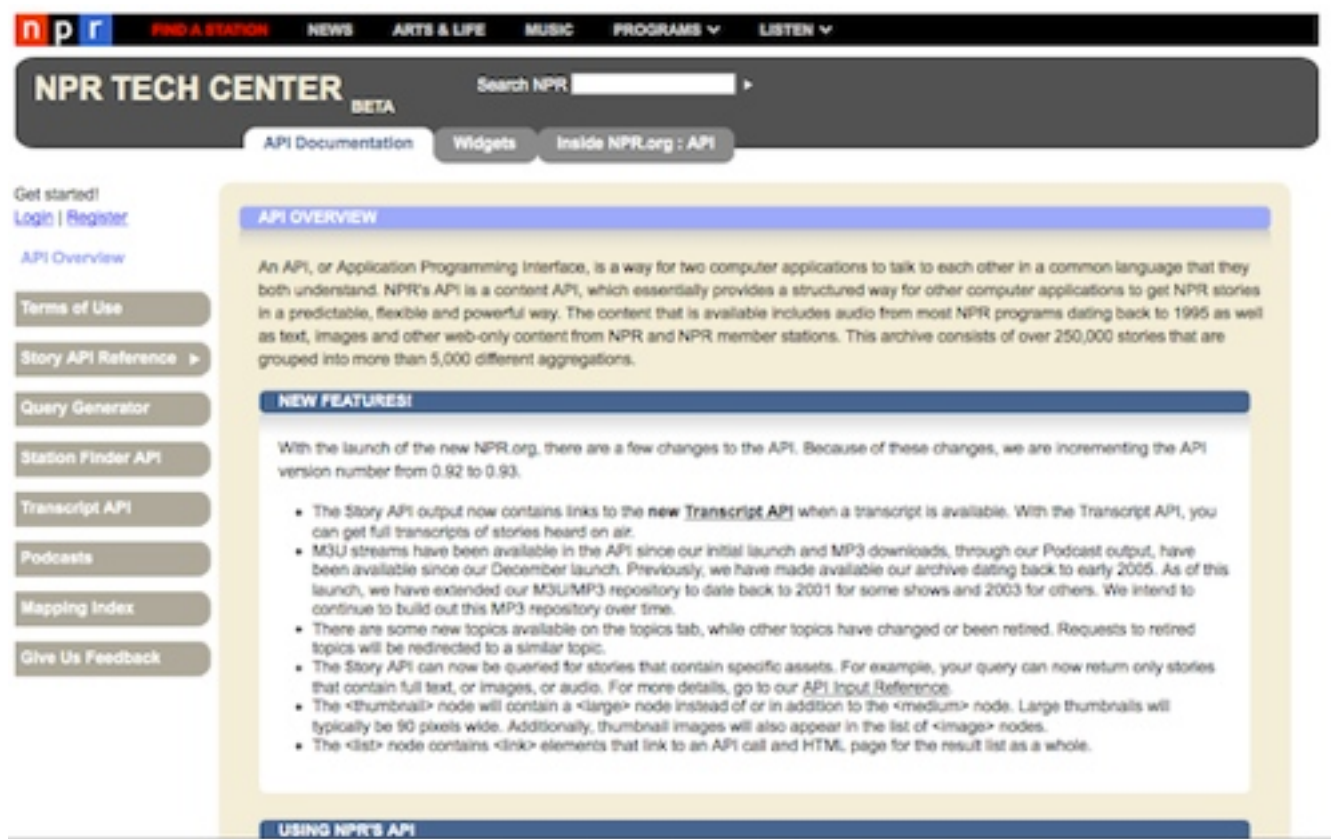


Figure 5: [NPR](#) structured its content well enough to offer a useful API.

You or your organization might think such multichannel architecture issues are mostly technology issues. Now hear this: They're content issues, too. Consider how your content's architecture will help you reach the right users in the right channels.

How These Areas Work Together

My diagram presents the areas of content strategy as a cycle. Now that you understand each area better, let's look further at this cycle.

Before Launch: Architecture Last

When you're about to reimagine a website or launch a new one, focus on

analysis, then editorial, and then architecture. Why architecture last? Because that way you don't waste time and energy planning areas of a site that you don't need. You avoid scrambling to fill unwanted screens and features with content. You'd never build a house by constructing every possible room, then deciding which rooms you actually need. It should be no different with websites and interactive experiences. Plan the content you need first, then architect it.

After Launch: Analyze and Adjust

After you launch, the cycle doesn't stop. Analyze how your content performs. Learn how users behave with your content. Stay in touch with industry trends. Watch for problems and opportunities. Address them by adjusting your editorial and architecture. Successful media properties *never* publish content, then leave it. I like how Tracy V. Wilson, Site Director for [HowStuffWorks](#), describes her approach to ongoing analysis,

"When we're looking at metrics, we're looking at them in light of how we already know our articles work, how we know that they're structured, how we anticipate that an average reader would come in and go through the article from beginning to end. And we can do the same thing for different types of content. So, we have articles, we have top ten lists, top five lists, quizzes, image galleries ... and we've developed a different sense of what "normal" is for each of those.

So, we're able to look at when something is deviating from our idea of normal and try to figure out why that deviation would take place. We also use metrics a lot in day-to-day planning, like planning what to feature on our home page ... deciding whether that day's home page was successful; a lot of that is coming from numbers and whether people's behavior on the site that day is matching up with ... what we're thinking of as the typical user behavior."

Get To Work

By now, I hope you appreciate more how analysis, editorial, and architecture work together to make content matter. The next step is to tackle *your* content. But, how? Every situation is a little different. For example, you might feel you have a good start on content analysis and architecture, but you have no idea *how* to approach editorial. These resources will help you get your specific plan together so you can move forward:

- [Content Strategy Deliverables](#)

This blog post series by content strategy expert Rahel Bailie explains typical content strategy deliverables in handy detail.

- [Content Strategy knol](#)

Started by editorial and content strategist Jeffrey MacIntyre, the knol indexes content strategy definitions, insights, blogs, publications, specialists and more.

- [A Checklist for Content Work](#)

This excerpt from Erin Kissane's new book on Content Strategy, *The Elements of Content Strategy*, notes some essentials.

- [Content Strategy Meetups](#)

If you want help with content or just some camaraderie, look for a content strategy meetup near you. If not, consider starting one yourself. When I started the meetup in Atlanta, I was happily surprised by the interest from developers, designers and marketers.

- [Content Strategy Forum](#), September 2011

This conference in London will bring together an international mix of well-known and new voices in content strategy. I'm as excited to see what others contribute as I am to offer a hands-on [workshop](#).

Also, I recently wrote a book called *Clout: The Art and Science of Influential Web Content*, which explains practical principles for planning content. Along the way, I included examples from startups, government, higher education, large business, and more to inspire useful ideas. I invite you to [learn more about the book](#).

Really, there's no reason *not* to take the next step toward better content today. The sooner you move forward, the sooner you'll overcome those content challenges. And, the sooner you'll get results.

Two Cats in a Sack: Designer-Developer Discord

By Cassie McDaniel, May 13th, 2011

The differences between designers and developers often erupt in pointed jabs on the Web or at conferences. Jokes or not, the jabs create friction whose consequences are real.



I am a designer, and by no elaborate means of job-title-rejigging do I consider myself a developer, but I see the cruelty of designer and developer egos going both ways. So, what happens if someone throws a pair into a sack to hash it out? How do we emerge? Our projects, careers and maturing industry rely on our ability to learn to work together instead of against each

other, and looking at what we have in common is one way to begin addressing interdisciplinary cat fights.

Shared Priorities

A belief that design and development have competing interests is an obstacle to successful collaboration. There are, of course, developers who design and designers who code (I'll return to this point later on), but the tension referred to here is between the designer and developer who believe that their respective discipline is more important. Conquering this belief is crucial to avoiding a clogged workflow, low team morale and, ultimately, limited project success.

Design is not completely an aesthetic concern, nor is development an entirely technical one; designers must consider how functionality affects form, and developers must be creative in building out functionality. Similarly, if we look closely at design and development, we find that principles of good design are often similar in good development. Focusing on these overarching ideas reveals a large pool of reciprocal interests.

Harmony of Parts

Paul Rand, a designer's designer, creator of the IBM, ABC and UPS logos, wrote in *A Designer's Art*:

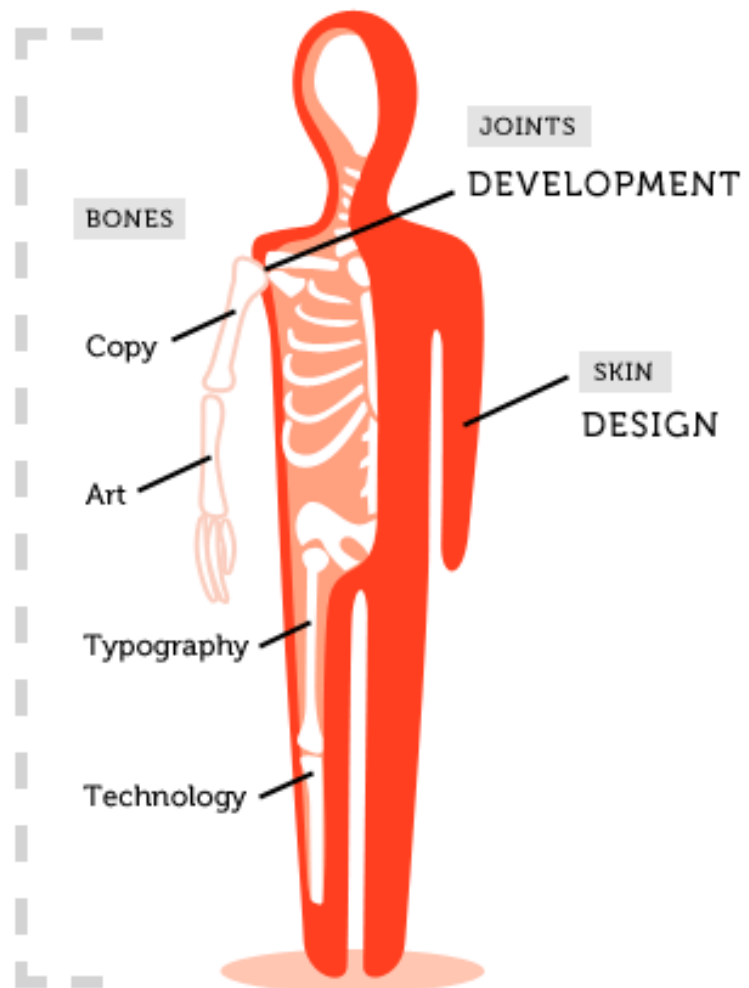
Copy, art, and typography should be seen as a living entity; each element integrally related, in harmony with the whole, and essential to the execution of an idea.

He wrote this in 1985. Today, the principles remain mostly the same, but one component is sorely missing from Rand's statement: technology. Copy,

art, typography — and technology — are the bones of a project, where design and development are the joints and skin that connect and hold together the parts. When all of these elements fit together well, you essentially have design and development working together as the support structure for the user experience and overarching concept, the so-called “living entity.”

Harmony of parts

Design and development work in unison to hold all separate elements together, creating the vessel for one overarching idea.



While far too simplistic a metaphor to cast a strong light on the process (building a website in fact looks much [messier](#)), *Harmony of Parts* does

illustrate how design and development should ultimately work towards the same goal.

It is also worth mentioning that development, like design, encourages the harmony of parts in programming concepts like polymorphism and encapsulation. These ideas quite broadly mean that pieces of functionality should work well when placed inside or beside other pieces, another way of saying, “each element integrally related, in harmony with the whole.”

Teachability

Both design and programming are teachable, and where there are talented individuals there is also hard work, discipline, teachers, mentors, standards, taste, ruthless editing and constructive criticism, all of which are cultivated. There is bad work and breathtaking work. There is the scrap heap, the slush pile, the useless code: all evidence of learning.

This commonality between disciplines is important because it presents an opportunity: designers can learn about development, and developers can learn about design. The democratization of resources in this information age (which some would argue we’ve [already passed](#)) means that we have little excuse not to obtain, or teach, at least a basic understanding of each other’s crafts. Not doing so will work to the detriment of the team. And when there are gaps in knowledge, rather than reprimanding, we should encourage an open dialogue to protect our most valuable learning tool: the ability to ask questions.

Elegance and Efficiency

Chris Coyier, self-described Web craftsman, blogger, author and speaker, writes in “[What Beautiful HTML Code Looks Like](#)”:

Code? Beautiful? Sure. After all, code is poetry. This is just HTML, so it can't be quite as intricate and elegant as a dynamic language, but it still bears the brush strokes of its creator.

What is elegance? It could mean restrained beauty and grace, as in art and fashion. But in design as well as math and science, something elegant typically embodies simplicity and effectiveness, sometimes solving two or more problems at once or by an unexpected insight. Elegance, then, refers to underlying content or an underlying process.

Design may rely on aesthetics for its medium, and development may rely on code, but both draw on theories of efficiency (perhaps a synonym for elegance) to create effective output: elegant code is efficient code, and elegant design is efficient design. This means that design and development share some core values of process.

Shipping

In his article "[Design Is Not the Goal](#)," Francisco Inchauste writes:

The end product (website or application) should always be the focus.

Inchauste goes on to say that too often, process insists on polishing irrelevant deliverables; for example, over-updating wireframes instead of moving on to the build and user testing. The true deliverable is the final product that we launch and that people interact with. Jeff Gothelf goes more in depth in his article "[Lean UX and getting out of the deliverables business](#)."

In a healthy team environment, we designers, developers, copywriters, user experience designers and project managers are *all* shippers. Bigger agencies tend to lump design and development teams into the Production

Department, for better or worse, and this is telling. It demonstrates that both “creative” and “technical” professionals share a predominant interest: they must ship.

Correcting The Workflow

It may be that designers and developers are perfectly capable of collaborating effectively, and that management and process are the biggest hurdles or frustrations within a team.

Good Ideas Intersect

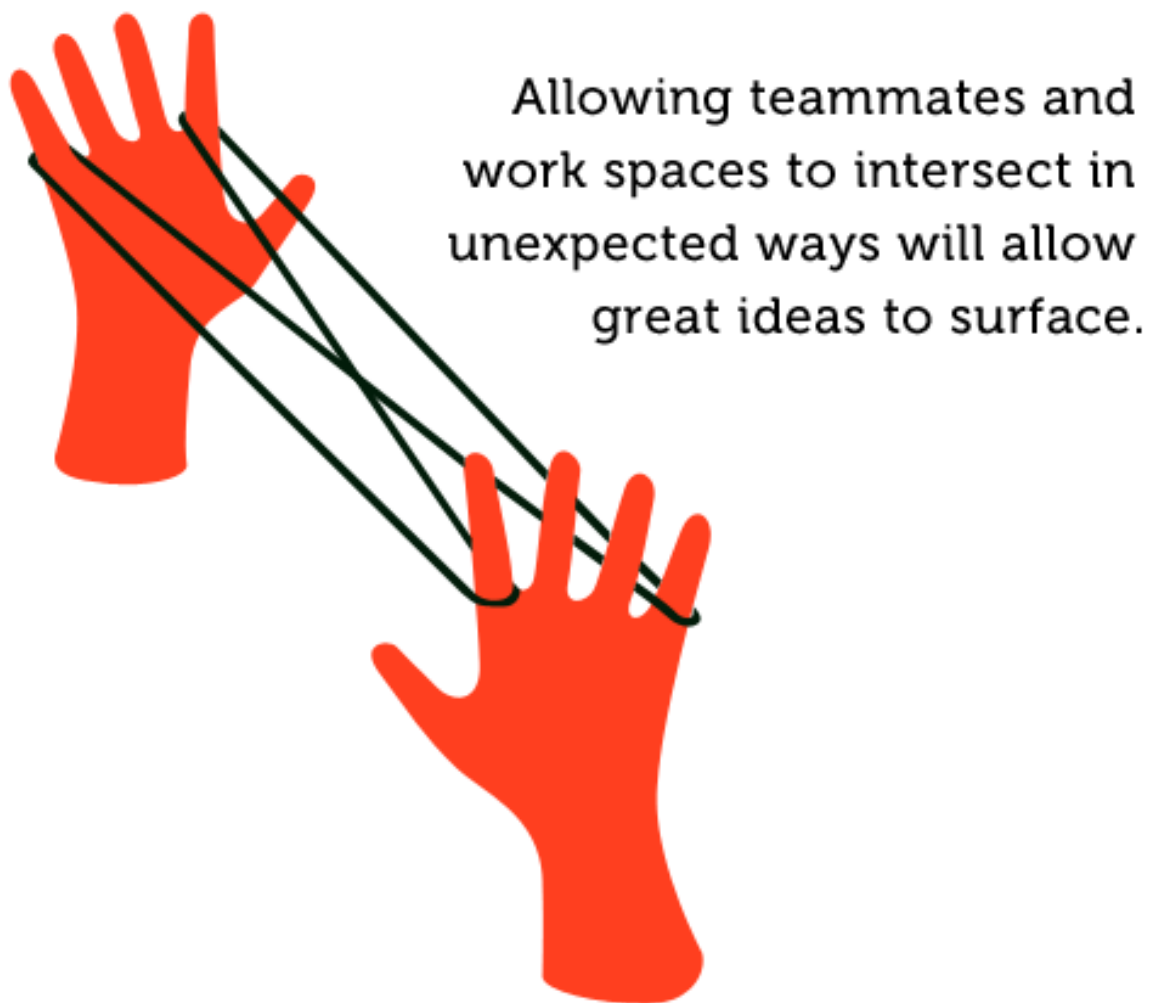
The logistics of securing work often mean that the earlier a great idea is identified for the project, the happier and more secure the client will be, resulting in a better working environment for everyone. However, it also means that stakeholders will come together early in the process to come up with ideas. This can occur to the preclusion of the very people who will produce the final work, especially in hierarchical agencies. This undermines the designer or developer’s ownership and discourages self-direction and personal investment in the project.

One solution to this problem is to ensure that great ideas are universally respected, wherever their origin. Michael Lebowitz of Big Spaceship famously preaches an agile workflow, saying in a *New York Times* [interview](#):

We also invite people from all of our disciplines into all of our brainstorming sessions. Great ideas come from everywhere.

A policy like this opens communication channels in a team framework and dispels departmental inequalities. When something goes wrong, finger-pointing is no longer an option if everyone’s had an opportunity to provide

input, and collaborators are forced to learn from mistakes. This is not to say that responsibility is evenly distributed, but allowing teammates and workspaces to intersect in unexpected ways will allow great ideas to surface.



Waterfall vs. Agile Thinking

In [waterfall-structured processes](#), where development is held up by unfinished designs, developers are the ones who end up staying late to finish the project on time. Not only is this unfair to developers, it is

complicated, because pointing the finger at designers for taking too long is too easy an answer. Responses to a design can be so subjective and cryptic (“I don’t know why I don’t like purple, I just don’t”); true insights require time to unearth and can result in unpredictable delays in the process.

Hold-ups are best avoided not by keeping design and development separate but by bringing them closer together via an iterative workflow. This [agile methodology](#) distributes responsibility and assigns value to each team member. Furthermore, departments are not tied to an inflexible plan. All of these attributes of agile thinking help to alleviate designer-developer tension.

Giving Credit

In the fable “The Lion, the Bear and the Fox,” a lion and bear fight over prey until they can fight no more and fall over exhausted. Meanwhile, a fox who has been watching the fight sneaks up and steals away with the prize. The moral is this:

Saepe alter alterius fruitur labribus.

From the labors of others, it is often another who profits.

Giving credit where credit is due and sharing the rewards is better, but unfortunately, in a fast-paced digital environment, whoever is left sitting at the table is often the one who gets the final praise. It is up to that last team member (the project or account manager, art director or tech lead) to pass feedback onto the rest of the team in a meaningful context. The cost is minimal (however long it takes to shoot an email or walk to someone’s desk), but the shared joy (or misery) will bond design and development teams because they will see the end product as the force that unites them.

Work Habits: Playing Nice

Sometimes playing nice is as simple as extending a courteous email; other times it is as complex as learning a new skill set. There are many concrete ways, big and small, for designers and developers to become more compatible colleagues. Let's first look at efforts that can be shared, then at tasks more specific to designers and to developers.

Good habits for designers & developers



Both Designers and Developers

Despite being in separate disciplines, our greatest commonality is that we are human. So, many of these shared tasks demonstrate how to play nice with *anyone*:

- **Keep an eye on the big picture.**

Pre-established goals that are developed by the whole team should inform decisions (and compromises) throughout the process.

- **Cast a wide net for inspiration.**

Look to a variety of sources for a well-rounded understanding of the topic. Discriminate material by quality, not subject matter.

- **Check in early and often.**

Avoid making too many decisions in isolation.

- **Be nice.**

If you must criticize, make it constructive. [Being kind](#) often reaches far beyond office walls.

- **Teach each other.**

In their book *Rework*, Jason Fried and David Heinemeier Hansson preach transparency between companies and their customers: "Letting people behind the curtain changes your relationship with them. They'll feel a bond with you and see you as human beings instead of a faceless company. They'll see the sweat and effort that goes into what you sell. They'll develop a deeper level of understanding and appreciation for what you do." This works for designers and developers, too. Revealing the inner process means teaching, and teaching is a way to invest in a relationship and build mutual respect.

Designers

There are innumerable great tips to help designers become better colleagues. Here are some of my favorites:

- **Explain the design rationale.**

Design isn't magic, and making an effort to analyze and share design decisions will create a conversation and demonstrate to colleagues that their insights are valued.

- **Practice PSD etiquette.**

Adopt the [Photoshop Etiquette Manifesto for Web Designers](#).

- **Design thoroughly.**

Think through the interactivity of the product, which includes designing the on, off and current states, designing error messages for forms, designing 404 pages, etc. This will save your teammates valuable time.

- **Be considerate.**

Avoid making others wait on you. Be proactive and organized, and ask for feedback often.

- **Enlist a developer.**

If the technical implications of the project are unclear, grab a developer to go through it with you. They'll likely appreciate being involved.

- **Learn about development.**

Knowing even a little about code will make you a better designer.

Developers

Here are a few ways for developers to improve their work habits:

- **Make yourself available.**

Being a part of the process from concept to realization will translate into a sense of ownership of the project. Ask colleagues what they're working on. Make your expertise available as a resource.

- **Simplify the explanation.**

If you can help team members from all levels and backgrounds understand high-level concepts and how they affect a project, you will become more valuable.

- **Develop the design details.**

Much of a designer's craft lies in the details; if they are forgotten or changed, the designer's time and effort will be wasted.

- **Be honest about what can't be done and why.**

Big ideas often struggle against time and budget constraints; that's nothing new. Knowing the development constraints ahead of time allows the team to create more appropriate solutions.

- **Learn about design.**

Theories, rules and standards play important roles in aesthetic and usability decisions. A little knowledge of these concepts will help you better navigate designs.

Some of the tips for designers will certainly also be useful for developers, and vice versa. Being able to work well on a team often depends on the individual's personality, so take those habits from either group that will contribute to better collaboration.

The Hybrid's Role

Designers and developers come in many shapes, and design and development skill sets are overlapping more and more. Hybrids, who have one foot in each discipline, seem to be increasingly sought after by clients and employers. This begs the question of whether we need to get along better or simply become more *like* each other.

Hybrids are in a unique position to answer this question. If you consider yourself both a designer and developer, tell us: What is it that you find easier or harder about being involved in both disciplines? What do you like or dislike about it? What can we all do to become better collaborators?

Post-Disciplinary Collaboration

Way back in 1999, Andrew Sayer, professor of sociology at Lancaster University, published an article titled “Long Live Postdisciplinary Studies! Sociology and the curse of disciplinaryparochialism/imperialism.” Despite the hefty title, he wrote quite simply:

Interdisciplinary studies are not enough, for at worst they provide a space in which members of different disciplines can bring their points of view together in order to compete [...] Post-disciplinary studies emerge when scholars forget about disciplines and whether ideas can be identified with any particular one; they identify with learning rather than with disciplines.

Competition is fierce in our industry, and as talented new generations join the workforce, it will only become fiercer. Web makers will need to work harder and more efficiently to retain that quality that clients and consumers value: the ability to surprise. For this, we need innovation, but designer-developer cat fights take up precious time that could be put to innovation.

If we instead incorporate post-disciplinary collaboration into our process (a fancy way of saying, "Let's forget about job titles for a moment and work toward something together"), I believe we'll be more successful and find our jobs more enjoyable.



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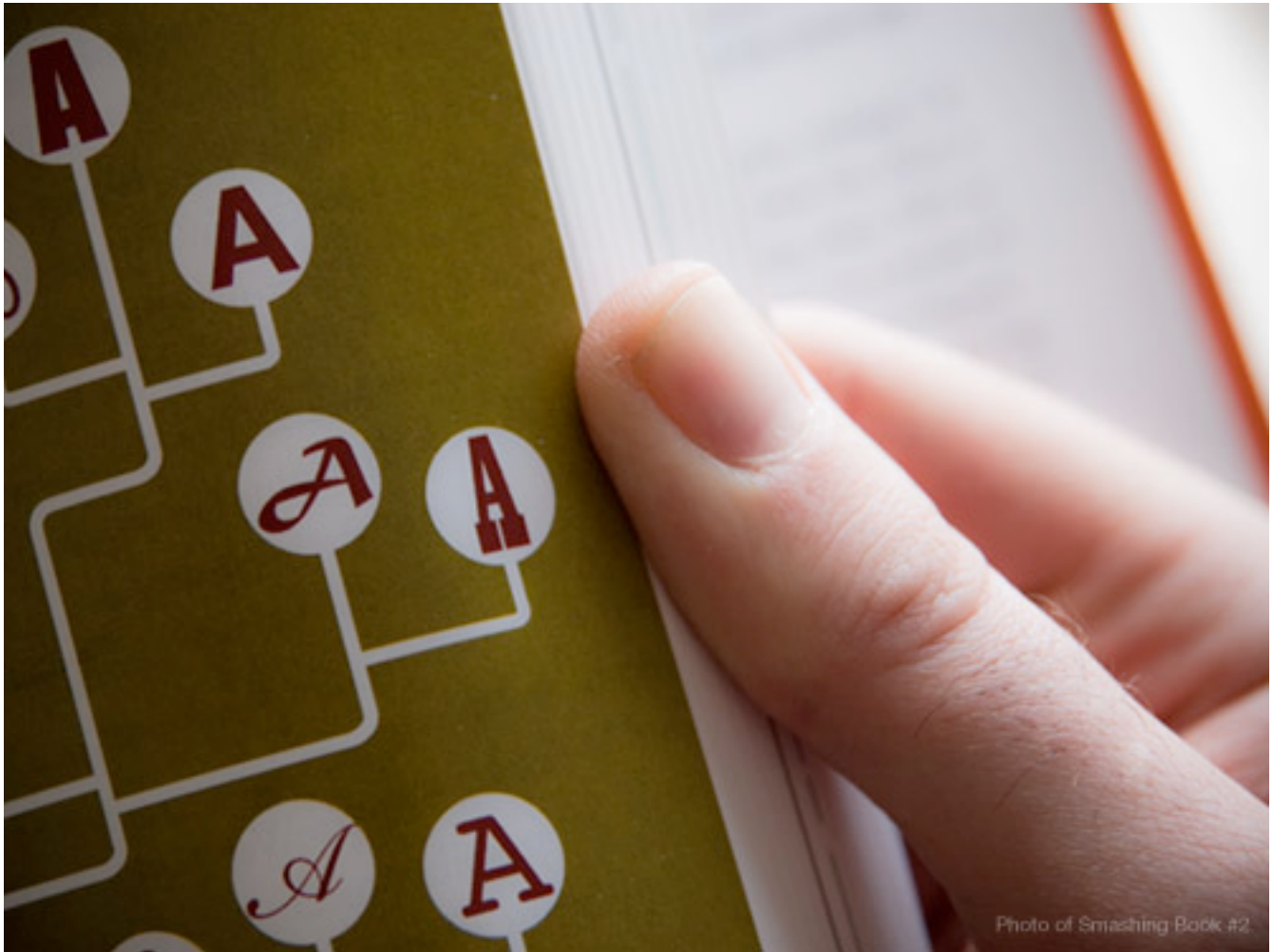
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Print Loves Web

By Mark Cossey, May 23rd, 2011

A recent power outage highlighted the fragile and dated way I access content on the Web. I sit in front of a computer which has a number of hardware elements like a keyboard, mouse and monitor — all connected to a black box which houses a number of other smaller more complicated bits of hardware. To access content on the Web, I rely on all of these layers working, not to mention the parts outside of my control-like cabling and remote servers. As soon as one of these layers goes down (the electricity in my case) I'm left with nothing. A mobile device allowed for some surfing but eventually my batteries died and I was back to darkness.

There was nothing for it but to pick up a book to try and satisfy my visual hunger. With all other distractions (the kinds that need juice from the wall) lying lifeless around my flat, I was able to really enjoy a book I'd been meaning to look at for some time. With many image-filled pages the large hardback book (*Supply and Demand* by Shepard Fairey) was a real joy. Controlling the speed at which I flicked through the pages with my thumb, sensing the smell of the ink and paper and the subtle cracking noise of the spine as I opened the book wider, it was the best user experience I'd had in a very long time.



Reflecting On The Web

I started to think about not just the delicate nature of accessing Web content, but also what it feels like to look at and navigate websites and use applications via a computer. It's clumsy to have to press keys to say what I want to say, then have to stop pressing the keys to hold onto a small bit of plastic which moves a tiny pointer on my screen, which I then have to click on stuff that makes other stuff happen. It also made me question my own trade of designing these sites that we expect people to use and enjoy.

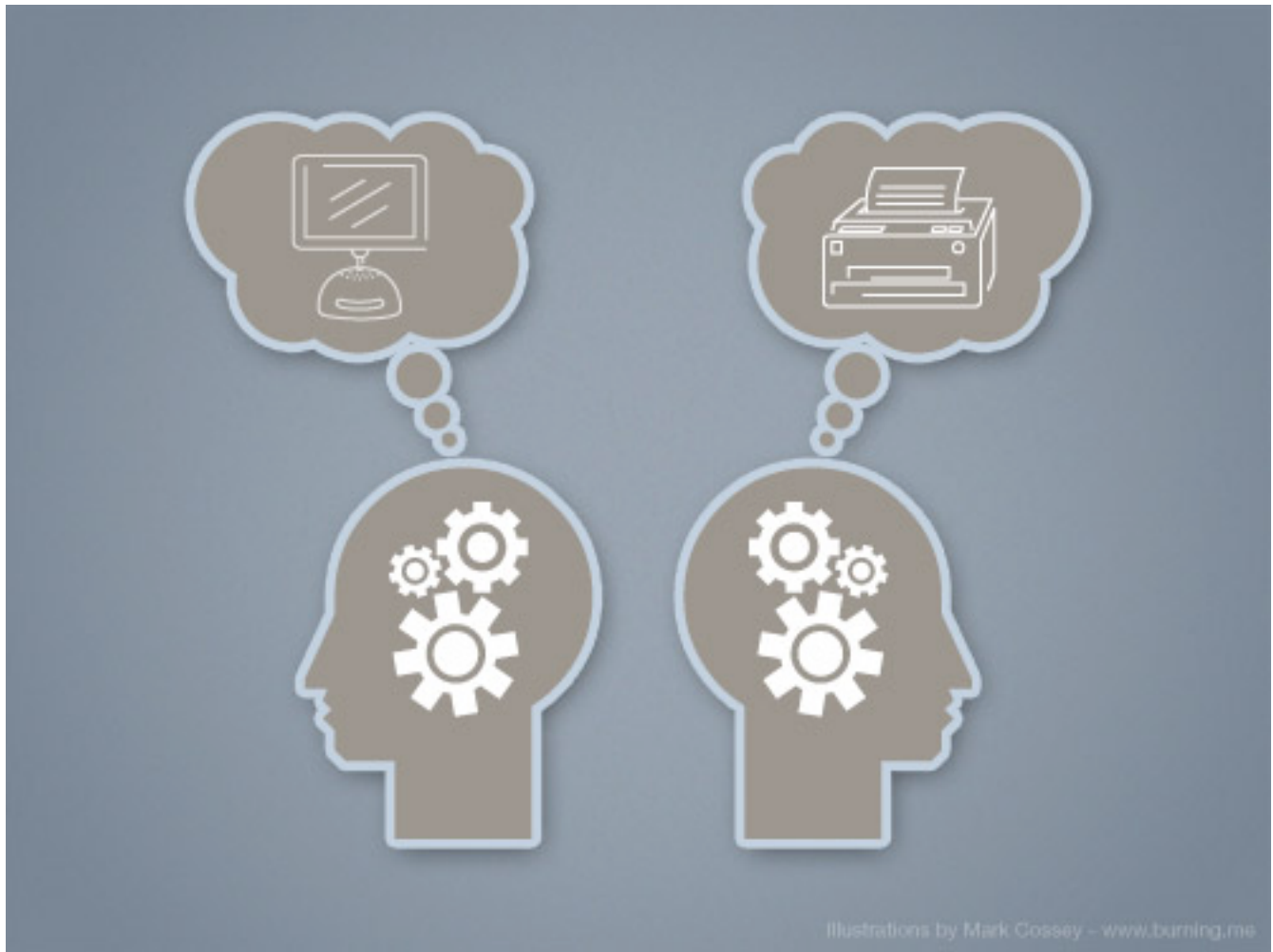
All the effort that I put into styling buttons, spacing letters, creating harmony in color and then building it to work in browsers I'm convinced don't actually exist. A whole heap of work for a lousy user experience of clicking, typing, scrolling, then clicking again, then typing. A modern Web user is spending less time sitting at a desk in front of a screen and is constantly connected.



When Two Trades Go To War

In our industry, print design and digital/Web design are two very different trades. Print designers (or graphic designers if you want to get all old school) are seen to be folk that don't have a place in a trendy digital agency with their mumbo jumbo talk of spot colors, bleed and ligatures, and Web designers are seen as a bunch of jack the lads that know nothing about typography and how to use color, they simply talk of validation, hover states and hex values. This might be true in some cases but the real story is that these two trades better get together over a beer and become friends. The future of online content depends on it.

I don't own an iPad or Kindle but I've used both and I do have an iPhone which I use a lot. If you take a step back from the technology of these types of device and just think about the function for a moment, it's clear that they have been designed to be held and touched (haven't we all) in much the same way as a book. Many apps that are available on the iPad and iPhone right now are based on physical objects that need to be touched to work like a piano or guitar. So what does this have to do with print and Web becoming best buddies?



Web, Meet My Friend Print

I have a background in print and I've been lucky enough to work with some brilliant graphic designers who have taught me about paper types, printing techniques and good typography. These are skills the graphic designers have developed over a much longer period of time than the Web has existed. Good graphic designers are able to communicate a message visually in more than just two dimensions. Being aware of scale, environment, textures and light are all skills that are fundamental to graphic design.

Graphic designers were user testing their creative even before Tim Berners-Lee had even come up with the catchy mouthful *WorldWideWeb*. I've been involved in focus groups where participants have been asked questions about not just the message and content of printed direct mail campaign but also on the quality and finish of the paper.

Imagine creating a super team of forward thinking product designers, Web designers and print designers to re-think the way we deliver content online and digitally. Collaborative working with experts in these fields focusing on new ways to deliver and present a print style magazines in a digital format is an exciting prospect. Thinking beyond the faux page turn styles we've all seen in various book readers over recent years but moving more towards a device that can re-create fidelity of a printed page and content that can dynamically populate itself with location aware content and personalised messages.



Future generations of the iPad could find a way of re-creating the sensations I experienced when I flicked through that book during the power cut. Tactile feedback and textures could be standard features and the way colours behave in certain lighting could be much more realistic. Devices will have a whole new approach to power consumption, too. Speech recognition is a dead donkey, and only ever used by sales reps who are happy to listen to sound of their own voice while weaving around on the highway. The ability for the device to connect to the user's mind to cut out all the mundane key pressing and link clicking would be a wonderful feature — thinking and doing at the same time.

The Future of Content Delivery

One thing most of us humans have in common is the ability to touch, talk, see and think so we should be designing for everyone. Hardware builders need to consider all environments on earth and think about things like battery life, connectivity and sustainability, too. I'd like to see the large hardware manufacturers that are celebrating massive financial profits exploring ways of making their devices usable by every human in every environment.

The information available on the Web should and can be available to everyone on earth. With a new breed of mobile device that delivers this content in a whole new way will ensure that each and everyone, young and old will understand and enjoy accessing this content. We need to think physical and we need to think touch but we also need to review the way we behave online right now and decide what goes and what stays.

It's up to us, the designers (both Web and print), to be pushing and nipping the heels of the hardware manufacturers to encourage these new ideas. Apple's App Store is good at this; it's still not perfect but the Web as a whole will allow these ideas and thoughts to trickle out and be picked at and improved.

Asking The Pros

I asked our industry experts in both print and Web what they thought about a future where print and Web designers join forces to create new form of Web content. Can it work? Should the age old rules of print be used in the next generation of Web content? What Web design rules can we safely leave behind and what new rules should we adopt?

Brendan Dawes



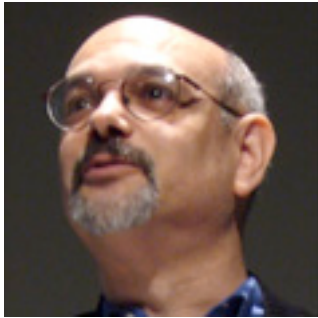
[Brendan Dawes](#) is Creative Director for [magneticNorth](#), a digital design company based in Manchester, UK. Over the years, he's helped realize projects for a wide range of brands including Sony Records, Diesel, BBC, Fox Kids, Channel 4, Disney, Benetton, Kellogg's, The Tate and Coca-Cola. Brendan was listed among the top 20 Web designers in the world by .net magazine and was featured in the "Design Icon" series in Computer Arts.

"I think in many ways we are still tethered to romantic notions of how things were in the past; whether that's adding filters to digital photographs to make them look like Polaroids, or typing notes into apps that are made to look like their paper counterparts. There seems to be something warm and more human when you add these analog layers on digital things; layers derived from the things from our past and how things used to be. But for me I think it's short-sighted to let the past bully potential new thinking in this way. Personally I hate digital page-turn effects — why are we trying to shackle digital interfaces to old paradigms? You turned a page because that was how a book was/is constructed, but there are no pages as such in the digital domain.

If we're talking about making a deeper connection from a user experience point of view then trying to emulate the past is not the way we should be going — we should be exploring entirely new techniques that are born from the exciting possibilities of the new rather than the old ways of the familiar. But there is comfort in the familiar; familiar is easier, whilst new is harder and often scarier. Yes, I love holding a beautifully printed book in my hands, the feel of the ink on the printed page and all that, but I equally love holding a beautifully crafted, often magical app in my hands, too. Surely, it's more

exciting to create new things rather than Xerox the past? I know which one I'm more excited about."

Steven Heller



[Steven Heller](#) wears many hats (in addition to the New York Yankees). For 33 years he was an art director at the [New York Times](#), originally on the OpEd Page and for almost 30 of those years with the New York Times Book Review. Currently, he is co-chair of the MFA Designer as Author Department, Special Consultant to the President of SVA for New Programs, and writes the Visuals column for the New York Times Book Review.

"Whenever I hear print and Web mentioned in the same sentence, it is usually a downer. Print is dead. Web is alive and well. Well, I think the marriage of the two may not last into the 22nd century, but for this century, there should be happy bedfellows. Can't wait to see the offspring."

David Airey



Graphic designer and [design author](#), David has been featured in Creative Review, HOW Magazine, Digital Arts, LogoLounge, and more. He also has been mentioned on the New York Times website, and was interviewed live on BBC Radio. David's graphic design blogs [Logo Design Love](#), [davidairey.com](#) and brand identity showcase [Identity Designed](#) attract more than one million monthly pageviews.

"A future where print and Web designers join forces happened some time ago. Today's designer considers every aspect of a project's deliverables. S/he might not take full responsibility over each touchpoint, but there should at least be some level of knowledge acquired about the project's bigger picture — the main goal.

Compare it to a jigsaw puzzle that was pieced together by five different people. Each person focused on one specific area, but at the same time, before they began, all five knew what the completed puzzle was going to look like. This insight helped them to streamline the process, placing the pieces they were responsible for in the correct area within the overall frame. They saved time and effort, just as designers of today who specialize are at an advantage when they stand back and view a project from every angle."

Conclusion

It seems there is no place for the traditional print designer, but then again, nor is there a place for the traditional Web designer who ignores our print design history. The modern designer is much more than a Web, print, digital or visual designer. Perhaps the modern designer is one that embraces all forms of design to create content that 'knows' where it is and 'lives' and behaves in a way that brings us as humans much closer to it.

About the Authors

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[Bridget Fahrland](#) has worked in Web design since the days of blink tags. As a creative lead with a copywriting background, she works with clients to ensure their sites have a distinct voice and design. She is currently the Director of Creative Strategy at Fry, Inc.

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Dan Mayer's interest in graphic design began when he was five years old and visited a printing press on a 1979 episode of Sesame Street. Originally from the US, he recently spent five years in Prague teaching classes in design theory and history at Prague College and providing art direction for Dept. of Design. Dan currently freelances and splits his time between Berlin and Prague. His work and more examples of his writing can be found at www.danmayer.com.

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David Travis is a user experience consultant and trainer at Userfocus. He has a BSc and a PhD in psychology and he is a Chartered Psychologist.

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Marc Edwards ([@marcedwards](#)) is the director and lead designer at [Bjango](#) ([@bjango](#)), an iOS and Mac app developer. Marc has been using Photoshop and Illustrator for over 20 years, designing for print, Web, desktop applications and iOS."

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Michael Aleo is a designer working in Washington DC to create beautiful and useful web experiences for an array of organizations and their users.

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[Michael Martin](#) writes about Web design, WordPress and coding at Pro Blog Design. You can subscribe there for advice on making the most of your blog's design, or follow him on Twitter.

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Sergey Chikuyonok

[Sergey Chikuyonok](#) is a Russian front-end Web developer and writer with a big passion for optimization: from images and JavaScript effects to working processes and time savers coding.

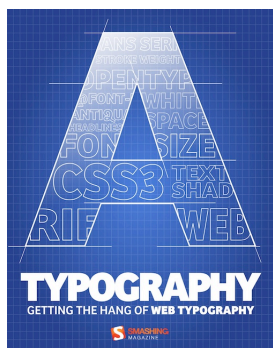
Tom Giannattasio

Tom Giannattasio is the Art Director at the creative agency [nclud](#). His personal portfolio can be viewed at [attasi](#).

Vitaly Friedman

Vitaly Friedman loves beautiful content and doesn't like to give in easily. Vitaly is writer, speaker, author and editor-in-chief of [Smashing Magazine](#), an online magazine dedicated to designers and developers.

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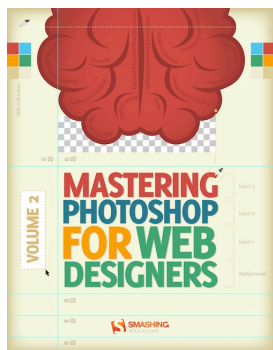


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