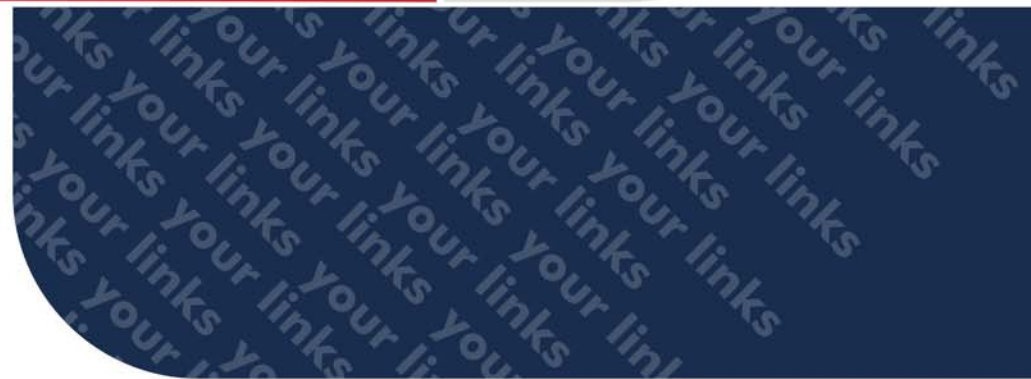


How to design your links

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Overview

A **hyperlink** (or just links) is maybe the basic element of the web navigational process and could stand for one of the keywords when talking about internet or the World Wide Web. We currently live in an age where hyperlinks could just be used in almost any electronic media.

In all likelihood, internet users might be tended to say that hyperlinks are quite diverse; the fact is that they are not as varied as they may appear. What makes the difference between the various types of links are the various methods of accessing them. Most of the links can be accessed with a simple click on a text or on any other graphical element.

Hyperlinks can be used with text editors, PDFs, word processing documents, spreadsheets, emails and many other types of documents. With HTML, the situation is a bit different. HTML is what makes a link be seen in a certain color and style and with a certain font.

The HTML code contains link properties such as:

- > link label
- > title
- > target
- > class
- > destination.

What you are about to read does not focus mainly on hyperlinks but rather on the way they are designed. In the following paper, you will be able to find the most important pieces of advice that are to be taken into account when designing links. It mainly addresses to web masters and web designers but also to those who have web design on their list of likes or to those who just want to learn more about how to create a usable website. You will also find examples of the most frequent mistakes in creating links that are to be encountered all over the internet. The main purpose of designing links properly is to make internet users realize easier which elements on a web page are clickable and which not. At the same time, making links according to the rules will reduce as much as possible the possibility that certain important links on a website are skipped.

How to make the most of hyperlink design

It is a fact that links have always been a vital part in the internet navigational process. Depending on the links and on the content of the site that the link leads to, internet users decide on the worthiness of coming back to that site or not.

Linking undoubtedly plays a major role in web site usability. Before trying to elaborate on this theme and before trying to give any tips regarding this matter, maybe a definition of this term might be suitable. So, linking could be simply defined as a hypertext link leading to a web page other than a site's home page when selected and clicked on by users.

One cannot fail to notice the latest trends imposed by web 2.0, the emergence of a new writing genre designed to cater for the new needs and tastes of internet users and also the transformation process that search engines undergo. What might come as obvious is the fact that people read differently on the Web. Researches conducted among internet users proved that onscreen reading is more unpleasant than paper reading; at the same time, printed content can be read up to three times faster. Besides this innate 'feature' of the human eye – not to prefer onscreen reading, there are also factors like low computer screen resolution and the clumsiness of the scrolling page that lead many readers just to scan onscreen text and print pages for reading. Another relevant aspect is that Web reading is not a passive activity – it implies a lot of concentration and selection capacity on the part of the user.

Broadly speaking, users go from page to page selecting only the most important information or just the information that is easier to spot; they need to be able to make a quick assessment of the page content, get the information they are seeking and go to another page. Also, because Web pages may be accessed directly, they must be more independent than print pages.

Usually, web authors employ hypertext links to create or reinforce concepts: a list of related links can serve as the focus of a site. The problem posed by links has little to do with the web but is rather related to the concept of hypertext.

A collection of links does not have the same effect on the reader and is not as legible as conventional linear text. In the case of linear text, readers have to work harder in seek of needed information. Links also become a

technical problem, because most web pages have a certain rank on search engines due to links. Links are to be used as a reinforcement of, not a substitute for content.

What is worth mentioning when tackling the link issue is that designers are supposed to use relevant link labels, give consistent clickability clues and also differentiate links that have been clicked from those that haven't. At the same time, it is important to keep in mind that on a web page, text links are preferable to graphics for instance, taking into account the fact that they provide more information about the page that is about to be accessed.

1. Link related content

When giving links, the pages that are to be visited should be similar in content. As obvious as it might appear, there are web pages that do not respect this rule.

2. Use relevant link description

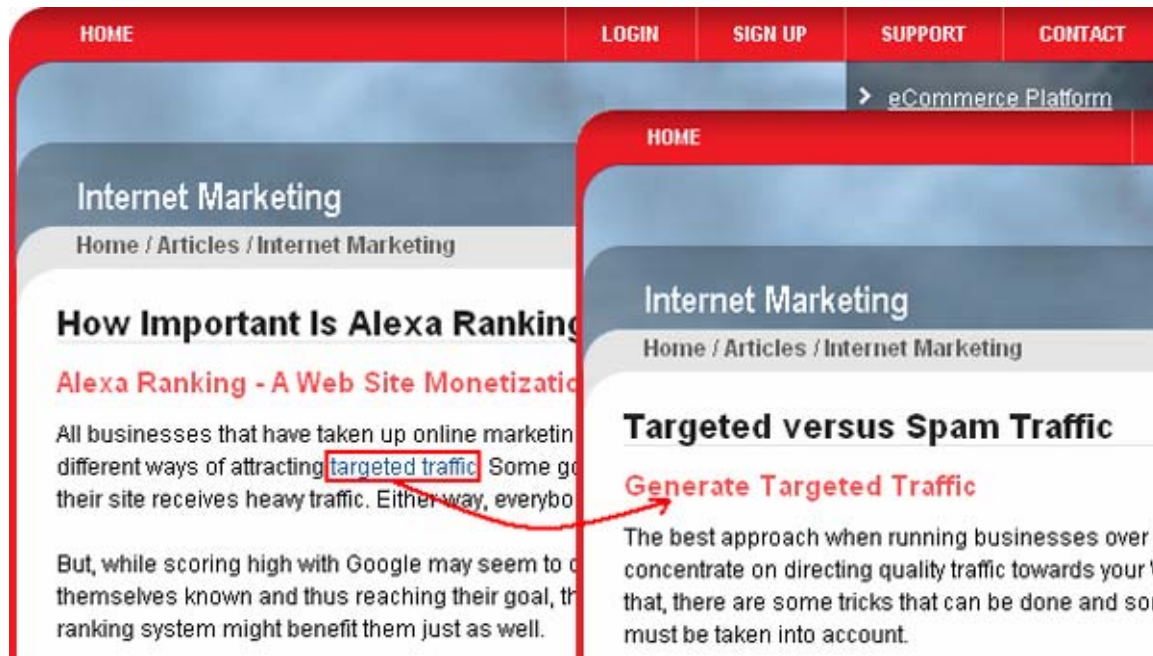
Users' confusion must be avoided at all costs. In this respect, they should be able to look at every link and be able to predict to some extent the destination or the website they are about to visit. A negative example in this case is using the label "*Click here*", which is rather confusing and does not provide any kind of information about the link destination.

Repeating links with the same label is to be avoided due to the potential user confusion. At the same time, keywords are preferable – words that could describe your page best and that would help your site being indexed better by search engines.

Closely matched links and destination targets help provide the necessary feedback to users that they have reached the intended page.

Another relevant case is that of embedded links; when employing embedded links, the link text should accurately designate the link's direction. Users have a certain tendency towards ignoring the text surrounding embedded links; therefore, it is recommended that you should not create embedded links that use the surrounding text in order to provide hints about the link's destination.

Example:



Source: <http://www.avangate.com>

In the article excerpt above, you can easily notice that link has a very accurate description and you can realize the destination of the link.

3. Be aware that textual links do have certain main characteristics like: underlining and color.

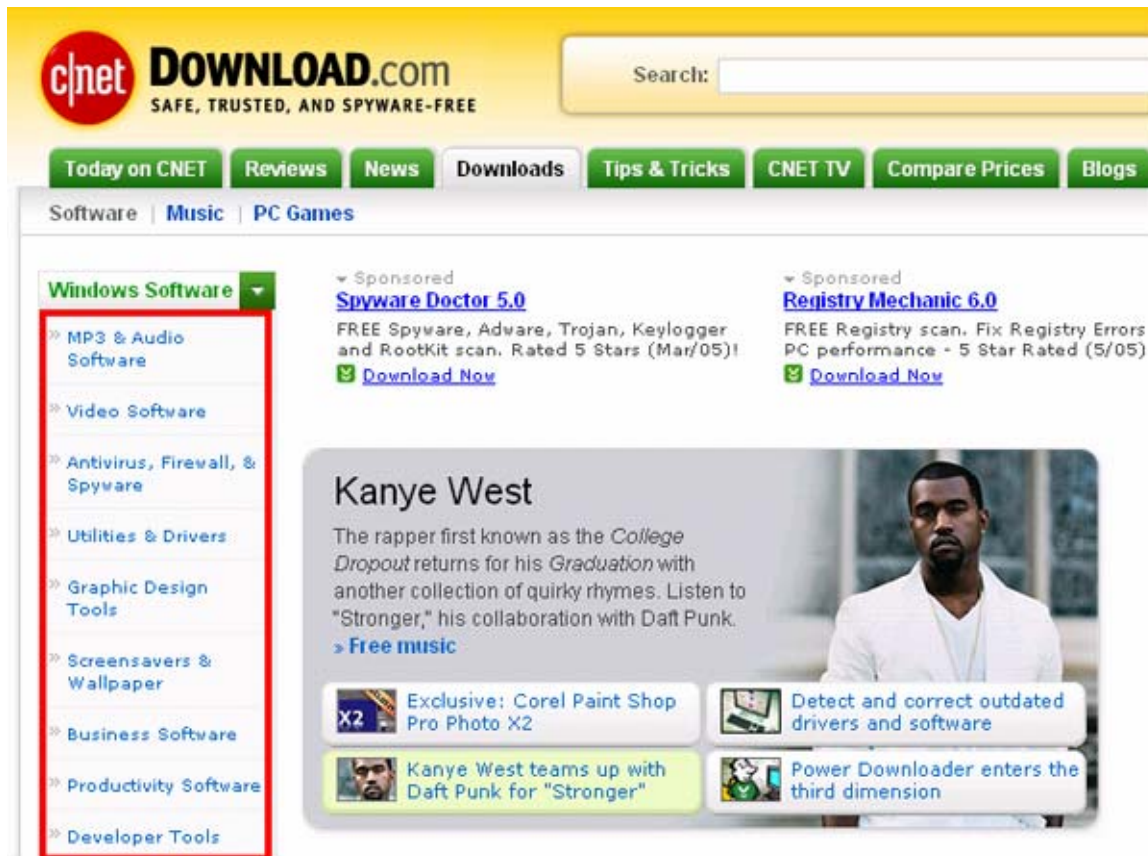
The second trait is not as important as the first one, i.e. underline can be eliminated in some cases like the one when an area functionality is absolutely obvious – for instance, we could think of a site menu where everybody expects a content summary as a presentation. A further illustration of this is that in which the site designer employs colors such as red or green – in these cases underlined text is of vital importance in order for users to perceive text clickability and also, a matter of accessibility for persons with eye-disabilities. Thus, the main advice that could be extracted from this paragraph is that you should provide users with sufficient clickability cues.

Trying to put the cursor over different parts of the page is time consuming and not quite ‘affordable’ with a view to gain more traffic. A concrete example in this case might the use of images which play a double role – as a

decoration and as a link; this might appear rather forcing for the users to analyze the image and realize its clickability.

At the same time, it's worth keeping in mind that there are certain clickability expectancies regarding different regions of a web page; for instance, items on the center, left, right side have a high probability of being links.

Example:



Source: <http://www.download.com>

4. Underlining text is optional

Usually, underlined text has always been a proof of a hyperlink presence. Nevertheless, this has become optional nowadays; on the other hand, the situation is not vice versa: ordinary text should not be underlined due again to potential user confusion; underlining should be kept for links only.

Jakob Nielsen, "*the king of usability*" (Internet Magazine), elaborates in his famous [Alertbox](#) on the idea of perceived affordance of clickability. The term has been originally used by J. J. Gibson, a psychologist, in order to emphasize the relationship between the actor and surrounding environment. User-engineering proponent Don Norman employed the term affordance in the context of product design, and tried to assess the extent to which the design of an object hints its use. Currently, the term affordance was introduced to the graphical and industrial-design communities. Subsequently, Norman has sought to distinguish between the actual properties of an object and the *appearance of affordance* by adding the adjective 'perceived'.

The perceived affordance of an interface element is determined by a series of factors like:

- > **context**: the environment in which the element exists or acts;
- > **culture**: the coercion imposed by social 'norms' on the individual's perception and use of a object;
- > **instinct**: an unconscious association, often linked to physical characteristics, for example, the size of an object in relation to the human form;
- > **mental projection**: the user's understanding and expectation of an interaction with an object.

5. Use different colors for visited and unvisited links

Links that were clicked must differentiate one way or another from the ones that were not; the best way of doing that is the color contrast; links are supposed to stand out on the computer screen as much as possible; in this respect, bright, vivid colors are preferable – links should differentiate from linear text in any case. Conversely, links that were already clicked should employ a rather pale and 'washed' color. The effect of using different colors but both at the same level of chromatic intensity might result in a failure to establish a concrete content relationship between those links, users won't be able to tell visited from non-visited links.

This so-called 'feature' should have a beneficial effect on users' ease to find information on the site. Be aware that in case there are several links leading to the same page, all the links should change in color.

Example:

Before clicking

Find a **solution**

Popular Newest

Goodbye, Buddy List Shuffle: All-In-One Instant Messaging
Published 2007-06-11

Choosing a Blogging Tool to Fit Your Blogging Style
Published 2007-05-24

How to Make and Annotate Maps with Google My Maps
Published 2007-05-22

How to Take a Picture of Your Screen
Published 2007-04-27

Three Ways to Keep Your Secret Files Hidden
Published 2007-04-23

Goodbye, Buddy List Shuffle: All-In-One Instant Messaging
Do you have three separate buddy lists cluttering your desktop? Do your friends have a half-dozen different identities on multiple instant messaging services? It doesn't have to be that way--here are three great options for ending the "buddy list shuffle."
[more info and screen shots below](#)

TUCOWS SOLUTION

After clicking (as you may observe, there is no chromatic difference after going back to the menu)

Find a **solution**

Popular Newest

Goodbye, Buddy List Shuffle: All-In-One Instant Messaging
Published 2007-06-11

Choosing a Blogging Tool to Fit Your Blogging Style
Published 2007-05-24

How to Make and Annotate Maps with Google My Maps
Published 2007-05-22

How to Take a Picture of Your Screen
Published 2007-04-27

Three Ways to Keep Your Secret Files Hidden
Published 2007-04-23

Source: <http://www.tucows.com>

The example above, taken from a popular site of software downloads is bad example of not making the difference between visited and non-visited links.

6. What to use for textual emphasis?

In order to emphasize an idea, it's better to use bold or italic characters. Underlining text as a way of emphasis is not advisable because of the confusion with hyperlinks that could be created; users could become frustrated - they would not know anymore the difference between links and ordinary text.

7. Colors for text are to be avoided

It is recommended that colors should be used for hyperlinks only. Nevertheless, there are generally recognized and allowed colors for certain words such as red for 'error' or green for 'ok'.

Technically speaking, when referring to document colors, it is advisable that you specify all of the colors (BGCOLOR, TEXT, LINK, VLINK, ALINK), to ensure an enjoyable and legible composition. The main reason reinforcing this idea is that some users may have certain colors set as default, so if you don't specify all the colors of a document, they may end up with an illegible document. In addition, even when using a background image, you should still specify BGCOLOR, because the user may not have the image loading on.

Another advice is that formatting specific settings like colors should be set in a style sheet rather than in the HTML itself (note that when setting colors for the BODY you should still set them for all types of text). This will make it less probable that the colors cause a problem for the user and allow a separation of style from content. It will also result in a reduction of the amount of repetitive tags needed on your pages. Note that it is possible to set colors in both places but you should not to rely on colors set in CSS when setting colors in HTML; provided that the style sheet is not employed, the user won't have to face an illegible combination.

With reference to link color, avoidance of FONT colors unless necessary is highly recommended, since if the user has their colors set to override those of the document, they may be incompatible colors with the FONT color you use and may make the text unreadable.

8. Use larger fonts for primary links

A larger writing is preferable in order to distinguish primary important links from secondary ones.

9. Be sure that links are 'big' enough so that anyone could click on them

As funny as it may seem, some sites do not take into account the fact that their site could be also visited by older people; consequently, text links should be at least 10 pixels in size.

10. Avoid blue for non-text links at all costs

Even though some compromises would be acceptable (like using other colors), using blue is an exception. Blue is a color with the most notable perceived affordance of clickability.

For example, you might see in the attached screenshot, taken from an online software shop that the same color (blue) is used for both product titles and site's sections. While what you see on the left side is clickable (the green circled text), what is used on the right (the red circled text) is not. This is a good example of the confusion that might be created using the same color.

Example:



Source: <http://www.webstoragefile.com/>

11. Don't use 'special effects' when the cursor hovers over a link

As previously clarified, underlined text is the most obvious hint that the user deals with a hyperlink. Still, there are some particular cases when you might not employ underlined text for hyperlinks without major loss in usability. For instance, you could indicate clickability only when the user hovers over a link – let's say that a text gets underlined only after being hovered, as a sign of clickability. Nevertheless, using bold effects is not advisable due to the prospect that the text might realign. On the contrary, other effects like link titles could prove quite successful in creating a useful website (in terms of usability). But in order to have a better understanding of this concept, a further clarification might be needed.

Not until recently, users had a lot of trouble because they weren't aware of the direction of certain links. In order to respond to the users' needs, some browsers included in their features a slight preview of the link direction. The effect of this inclusion was a notable reduction in users' disorientation. These previews are called link titles and come almost naturally nowadays – therefore, you shouldn't miss them when providing a hyperlink; not to mention the fact that they are quite easy to add.

For example, we have the following html code:

```
<A HREF="/affiliates/" TITLE="Join the Avangate Affiliate Program">.
```

When someone will place the cursor on the affiliate section, a popup text will appear with the text "Join Avangate Affiliate Program". As easy as it may appear, note that there are still browsers that do not support link titles.

In any case, when using link titles there are some things that are worth remembering:

- > include the name of the site that the link will lead, provided that it belongs to an external source;
- > insert a short description of the linked page;
- > be aware that the character limit for link titles is 80, although it is not recommended to reach this limit;
- > inform the user about the requirements that need to be met on the destination page or other problems that are to be encountered;
- > do not repeat the text in the anchor;
- > not all links should contain link titles; too many title links might result in a loss of usability due to the heavy context around the anchor;

- > do not just rely on link titles; the anchor and the surrounding text should be formatted properly;
- > note that link titles should just be used as a kind of informative message that should come with a hyperlink;

Example:

This is a good example of correct link title usage.

The image shows two promotional boxes side-by-side. The left box is titled 'Software authors' and the right box is titled 'Affiliates'. The 'Affiliates' box has a red border around its header and the main text. A mouse cursor is pointing to the text 'Sell software on your site and get paid for it!'.

Software authors	Affiliates
<p>Start selling your software worldwide!</p> <ul style="list-style-type: none"> ▪ Attract new customers: advanced marketing and sales tools ▪ Take control of your online sales channel: transparent accounting ▪ Optimize your online sales process: reliability in service ▪ Enjoy comfort and stability: adaptability and responsiveness <p style="text-align: right;">▶ Learn more</p>	<p>Sell software on your site and get paid for it! Join the Avangate Affiliate Program!</p> <ul style="list-style-type: none"> ▪ Free affiliate program: get commissions for any successful sale ▪ Highest margins in the affiliate industry: commissions up to 75%! ▪ Conversion reports and tools: control and transparency ▪ Advanced customization features: match your site look&feel <p style="text-align: right;">▶ Learn more ftware</p>

Source: <http://www.avangate.com>

12. Ensure that the text is big enough and that the links are not too close together

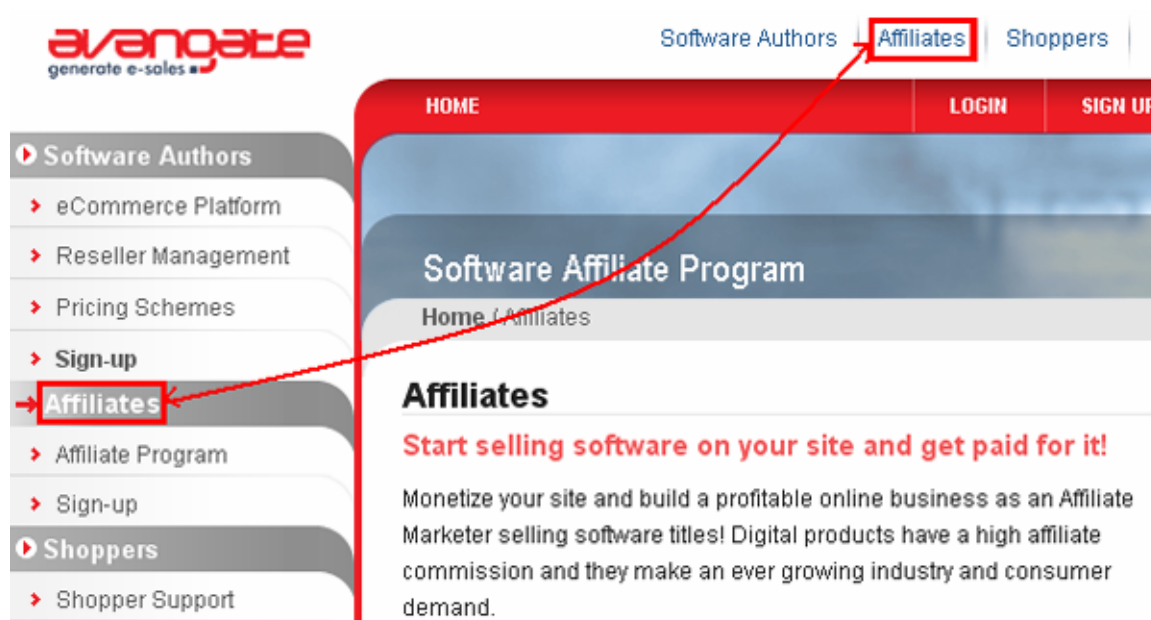
Internet users should reach a certain destination voluntarily, not because of the fact that due to link size they missed to click on the link they wanted. This rule might be skipped in the case of legal information in which people are not so interested. At the same time, this advice should be given due consideration in case some of the people targeted belong to the third age.

13. Be sure to make important content accessible from more than one link

Setting several ways to access the same information will certainly help users to find what they need. Different users might attempt different ways to find information, depending on their own interpretations of a problem and on the layout of a page. Some users find important links easily when they have a certain label, while others may recognize the link best with an alternative name.

A concrete example you might see in the image attached: the software author section is placed in two parts of the site so that the visitors won't miss it. By clicking any of them, users will see the same information.

Example:



Source: <http://www.avangate.com>

14. Employ text links rather than image links

By and large and as mentioned before, text links do have a greater perceived affordance of clickability. Text links usually have a faster download speed, are preferred by users, and should change colors after being selected. Even judging from a technical point of view, it is usually easier to place a link's destination in text, rather than using an image.

In many situations, users demonstrated considerable confusion concerning whether or not certain images were clickable. This was applicable even for images that contained words. Users could not tell if the images were clickable without placing the cursor over them ('minesweeping'). Just placing the cursor over a non-clickable icon is simply a waste of time. In terms of accessibility, one cannot forget about people who use other browsers than the most commonly used or about those who have graphical options turned down; consequently, in these examples, one could obviously realize that textual hyperlinks are by far more accessible.

15. Employ sensible link lengths

Hyperlinks should be long enough to be understood by users and short enough to minimize wrapping. It is advisable that links do not have a greater length than one line. As far as this issue is concerned, studies showed that when users scan prose text, links of nine to ten words do have best performance. One thing to keep in mind is that it is not always possible to control the way links will look to all users because of various browser settings and screen resolutions.

Example:

In the following image, you'll easily notice the presence of a link that contains too many words

In The News

- Debra Lafave
- Martha Stewart
- Maria Sharapova
- Michael Jackson
- Kobe Bryant
- Phil Spector
- Scott Peterson
- TrumpWatch
- Robert Sorrells
- Lori Hacking
- Tabloid Archives

Spears bodyguard rebuffed in court

Spector case goes to jury

Glamour Shots: Susan Hayward

Today's Tabloid News
For Tuesday, September 18

The latest breaking news - from the sources you trust!
We're among the top 50 websites in the world for Breaking News!

- Outrage Over Selection of 13-Year-Old to Be Face of Fashion Show.** The girl chosen as the face of an Australian fashion event says she fits into women's clothes, so she should be allowed to model them — even though she just turned 13. Prime Minister John Howard has led a chorus of criticism of the choice of Maddison Gabriel, who was 12 when she was named the face of the inaugural Gold Coast Fashion Week. [MORE...](#)

Discuss (0)

Source: <http://www.tabloidcolumn.com/>

16. Try to warn visitors in case they leave the page!

It is best for internet users to be able to realize when they are going to leave the site and head for another. Generally, users expect, when given a link, to head for a new page that belongs to the same site. In case this does not happen, they will become confused. So, the bottom line is that, when building a site, people should take into consideration the prospect of giving visitors warnings when they would leave a certain site.

Example:

In the attached illustration, you might observe at the end of every link given a kind of exit disclaimer which is actually a picture (gif), placed at the end of the links. The role of these links is to prepare the visitor to some extent for leaving the page.

Promoting a Video

- The keyword for the success of any online marketing video is "**submitting**". The best choices are video hosting sites like [YouTube](#), [Yahoo! Videos](#) or [Google Videos](#). The main advantages are that your videos will be hosted for free and they will not take up any of your site's bandwidth.
- **Share your videos.** If you really want to make yourself known, allow users to be able to link to your videos. Viral marketing videos are the best way to make companies (and, subsequently, their products/services) known across quite vast internet user communities. They carry a company's name across the Web at far greater speeds than any other marketing tool in existence.
- Don't forget to add such phrases as "**Tell a friend**" or "**Visit our Web site**" at the end of your video.

[YouTube](#), [Yahoo! Videos](#), or [Google Videos](#)

Source: <http://www.avangate.com>

17. Ensure users can see from just a sight which regions of the site are clickable

If any part of an image is clickable on a site, visitors should be able to see without pointing the mouse on certain regions of the page that those 'spots' are clickable. For example, in a map of the Netherlands, if individual parts are clickable, sufficient hints should be given to indicate the clickable regions.

The picture shown below, as simple as it might seem, is clickable, not entirely, but clickable. The fact that not every region represented on the map is clickable is another downside leading to user confusion.

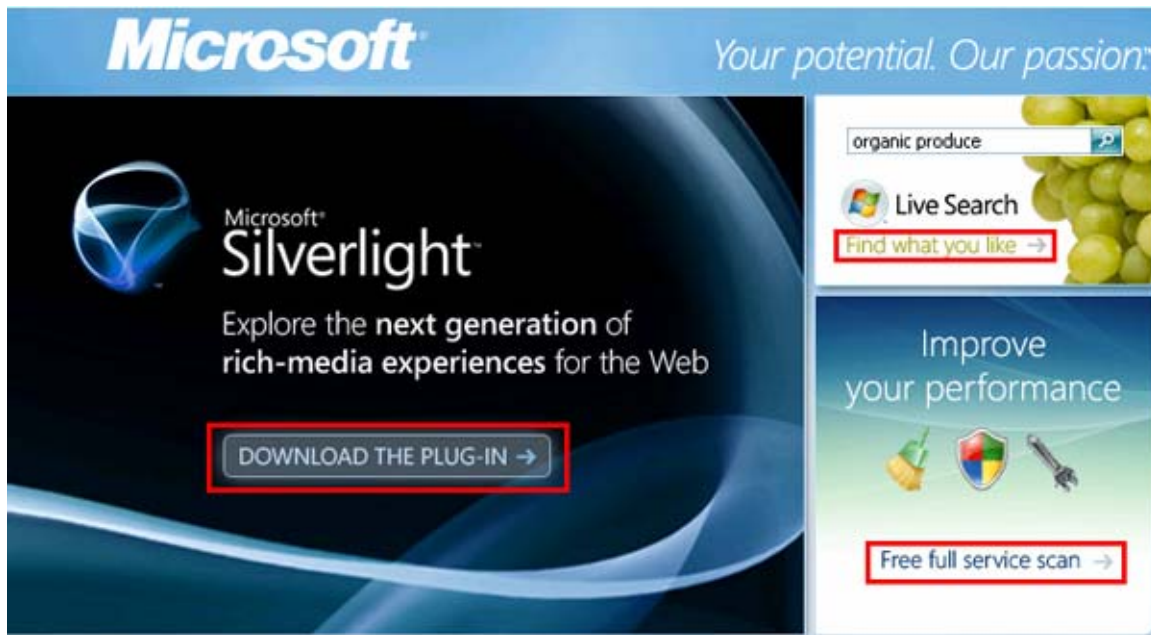
Example:



Source: <http://www.worldatlas.com/>

In contrast, Microsoft's site is a site where everybody could easily perceive which parts could be clicked and which could not. Besides graphic elements, there are also certain hints like the arrows or direct invitations to click('Get it now', 'Download the release candidate'), which are indicative of being clickable.

Example:



Source: <http://www.microsoft.com>

18. Provide links on your website to helpful information

It would improve navigation on your web site, if you were to give hyperlinks to further definitions, explanations or descriptions. So the main purpose of these links would be to clarify certain concepts so that less experienced users can successfully use the web site.

The best example in this respect would be wikipedia.org or other "encyclopedia"-sites with a rather pseudo-academic content. The goal of the links present there is to provide visitors with further information or to clarify certain concepts.

Example:

County of Holland

[edit]

Holland arose as a county of the [Holy Roman Empire](#) in the 9th century. The [Counts of Holland](#) were also counts of [Hainaut](#), [Flanders](#) and [Zealand](#) for several periods in the 13th-15th century. In this time a part of [Frisia](#), [West Friesland](#), was conquered and as a result most provincial institutions would for centuries bear the epithet "of Holland and West Frisia", such as the [States of Holland and West Frisia](#). Partly because of the cultural antithesis between the regions, Holland was divided along the IJ between a Southern Quarter (*Zuiderkwartier*) and a Northern Quarter (*Noorderkwartier*). In 1432 Holland became part of the [Burgundian Netherlands](#) and since 1477 of the [Habsburg Seventeen Provinces](#). In the 16th century the region became densely [urbanised](#), with the majority of the population living in cities. Within the Burgundian Netherlands, it was the dominant province in the north; the political influence of Holland largely determined the extent of Burgundian dominion in that area.

Source: <http://www.wikipedia.org>

19. The problem posed by reserved characters

This is a rather technical problem: certain characters are reserved and need encoding in a hexadecimal format in order to be used as URLs. Some browsers may show these characters properly anyway, but this is not indicative of the fact that these characters should be used without encoding in any browser. For instance, spaces are seen as special characters and consequently, they should be encoded.

The current tendency of almost all browsers is that they correct almost automatically links errors such as the one previously mentioned; still, older versions of browsers should not still be forgotten. By and large, it is recommended that you should avoid the use of characters that may require encoding. Keep in mind that any character other than a letter or a number, or characters like *\$-()+!., should be encoded in a hexadecimal format.

At the same time, another problem that might cause some trouble is that of URL case sensitivity. It is recommended that you make them case sensitive from the beginning to avoid changing them when you move from one server to another.

20. Create a logical link order

Don't forget that this could turn into a major downside for your site if this rule is missed. You should keep in mind that grouping related links in a certain section is of vital importance.

It seems that when visiting a web page, most screen reader users expect at least the main site navigation menu presenting the main sections of the web page before the content of the page. There is little evidence to support the idea that screen reader users would rather have the content presented first.

It is highly desirable however, to present the content of the page before extraneous information, such as advertisements and related links, as well as the page footer.

Not all of your visitors will enter your site via the home page. Therefore, the presence of site controls (means to find different locations on the site) on every page could be quite valuable for users. General search functions or home page links and phone numbers should be present on every page.

Deep link usability tips

> Make your site simple!

Always have elements on the homepage such as: company name or logo in the upper left corner, site search on the upper right side, breadcrumbs listed horizontally, link to the homepage and so on. With a view to reduce potential confusion, do place related content in the same section or make pages easily visible. You don't need to show all the pages on your site – similar pages on a certain topic will be enough.

> Present visitors the entire site!

If your site has a heavy directory structure, leave links that user can follow - this is the best way to show the user where they are, and how they arrived there. Again, do not provide users with unrelated content.

> Don't assume the user followed the same way you did to get to a page!

Conclusively, user testing in advance would be quite advisable in order to predict internet users' behavior on your site; they will certainly take different paths to find the data they are seeking. Remember to have always links to the top visited pages in a content group.

The bottom line is that visitors should not get lost on your site; they need to see clear paths in order to spot the most important information on your site.

The main idea concerning hyperlink design that should be given due consideration, is the interrelation between three time states – past, present and future, that is, internet users always need to know where they were, where they currently are and where they are heading. When visitors do have the knowledge of the previous web places where they were and they also know their present location, they are aware better of their future direction and they will develop specific expectations regarding hyperlinks.

Due to internet development, certain conventions and rules had enough time to form and to educate in some way or another, internet users. Presently, hyperlink design has gained a well deserved importance; still, there are still sites that do not employ the generally accepted conventions.

J. Nielsen cites some researches that indicate the problems of internet users when visiting web pages that employ the same color for the visited and unvisited links: they go to the same site repeatedly, they are not capable of making the difference between two similar links, they get lost easier and they give up faster when searching for something.

Changing link color for the visited and the unvisited links could be seen as a kind of short-term memory help for visitors: they do not have to keep in mind which sites were visited and which not – process which is rather difficult because of the great number of the visited links and also, because of the this rather human genetic defect. Changing link colors is one of the most problematic matters in identifying usability issues on users; internet users will never complain about link colors. Still, it is a fact that link colors can provoke navigational confusion and make the users move in circles, eventually leading to site abandonment.

Not only will the usage of different colors for visited and unvisited links make your site easier to navigate but it will also increase user satisfaction.

Conclusion

All in all, the most important conclusion that could be reached is that we should get rid of confusion provoking elements and try to adopt as far possible the generally link design conventions.

Standards ensure that users:

- > are aware of how some features will look in the interface;
- > don't get confused because of unknown design elements;
- > don't miss important features;
- > know what to expect;
- > know how to operate different features;
- > are aware of different features' locations.

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