Site Design Considerations for Search Engine Optimization

Site Design
- No frames
- No Flash intro
    - If absolutely required, make sure that the Flash intro page includes an HTML link to the proper home page
- If using third-party scripts, make sure that they don't include <noscript> sections with links back to the script developer's Web site

Navigation
- Text links work the best
- Alternatively, individual images with links are OK
- Image maps are **not OK** – search engine crawlers will not follow the links
- Implement a site map that has links to **every key topical page in the site**
    - A text link to the site map must be on the home page
- No Flash navigation
- If JavaScript navigation, must provide "alternate navigation" that crawlers will see
    - A text link from the home page to the site map, which in turn links to all other key pages.
- Crawlers will not follow links that are accessible by selecting items in a drop-down box
- Crawlers will not follow links that require the submission of a form
- Desirable to have keywords in page URLs. Examples:
    - /keyword1/keyword2/pagename.asp
    - /keyword-phrase.asp

Page Design
- **ALL PAGES SHOULD HAVE MEANINGFUL, UNIQUE <TITLE> TAGS**
- Use H1, H2, and H3 for headings and subheadings, leveraging style sheets to control the look and feel
- Get main body content as "high up" in the HTML as possible
    - Put all large chunks of JavaScript in an external file
    - Set up tables so that the main content cell appears before the navigation etc. cells
- Keywords should appear in
    - Page Titles (with the keywords appearing as close to the beginning of the title as possible)
    - Page descriptions
    - Image ALT properties, as long as they're related to the picture
    - Initial paragraphs are more important than latter paragraphs
- Keywords can be **bolded** and *emphasized* (not excessively, though) to give them extra weight
- Keywords should appear in <u>link text</u> within the site
- Use HTML validator on each page

Dynamic Pages
- If using dynamic pages, make the site map such that it does not use query strings and make sure that the site map is linked from the home page with a simple text link (e.g., in the footer)
    - /sitemap.asp?template=1 [WRONG]
    - /sitemap.asp [CORRECT]
- If the site includes database-driven pages, the database design should accommodate the ability to set TITLE, META DESCRIPTION, META KEYWORDS, and image ALT tags for each page. Depending on the template design, it may also be necessary to have database fields for H1, H2, etc. headings in specific template locations.

- There should be no session variables (session IDs) visible in the URLs. All session-based data should be POSTed to pages, not passed in URLs.
- Use URLs without query strings if possible. This is accomplished via URL rewrites (.htaccess) on Linux and with server-level rewrite components available for IIS.
- If query strings are required, strive to keep the number of variables to two or less while keeping the overall URL length as short as possible.

Transition Strategy
- Need a strategy for making sure that during the transition period (just after publishing the new site) that links to the old pages get handled properly. Search engines will have the old page URLs in their indexes for a month or possibly more. Do not send visitors who click on those links to vanilla 404 error pages. This will make them think that the site is completely gone. One option is to put redirect pages in place for all of the old pages. A less effective but simpler option is to customize the 404 error page to indicate that the site was redesigned, providing links to key areas of the new site, and include a site search (if applicable).
- Alternative (more comprehensive) strategy is to 301 redirect each significant old site Web page to the most appropriate new site page. This gives the searcher the best user experience since their click on an old page URL brings them to a comparable new site page. This can be done in the .htaccess file (Linux) or from the IIS console. Alternatively for ASP this can be done via a Response.Redirect in the ASP code of the old page or via customization of the 404 handler page.
- If the site is being transitioned to a new domain name an HTTP 301 redirect (permanently moved) should be used for the old domain. This transfers the inbound link strength of the old domain to the new one.
- NOTE: using a <META> refresh for redirecting is not the same as a 301. Search engines may penalize your rankings if you use a <META> refresh redirect.

Duplicate Content
- Search engines will penalize duplicate content sites. Duplicate content exists any time that the same page content is address by two different URLs.
- Alternate domain names can cause duplicate content. Alternate domain names should 301 redirect to the main domain name so that only one set of URLs for the content exists. If alternate domain names simply resolve to the same content pages a duplicate content penalty is likely.
  - o **IMPORTANT:** the non-"www" version of the domain name should be 301 redirected to the www version (or vice versa – it's just important to pick one or the other).
    - **Example:**
      mydomain.com/anything should redirect to www.mydomain.com/anything

- The format for page links should be consistent throughout the site. Some dynamic platforms allow for URL aliasing, which can create a situation where the same page is linked to using two different URL formats:

      /products/default.asp?prodID=99
      /products/widgets/prodID/99/default.asp

  Search engines will treat each unique URL as a separate page, thus creating duplicate content if the situation above exists.

Analytics & Results Measurement

- Often times, forms submissions are implemented by having the page, e.g., "form.asp," POST the form data back to itself. This presents a problem tracking these submissions in the Web logs because both the initial page view and the submission show in the logs as a hit on "form.asp," with nothing to distinguish them. By adding a tracking parameter to the page URL this problem can be resolved and accurate data regarding form submissions can be collected. This modification occurs in the opening <form> tag and does not alter the page display in any way:

  BEFORE adding the tracking parameter
  ```
  <form action ="form.asp" method ="post" id>
  ```

  AFTER adding the tracking parameter
  ```
  <form action ="form.asp?state=submit" method ="post" id>
  ```

- Links that take visitors offsite should be tracked if clicking on the link represents a key action. Because clicks on external links do not get tracked in your site's logs (the request goes to the destination server), a mechanism is needed to create a local, loggable event when the click happens.
  - A redirect page can be used, effectively routing the click through a local page first (the redirect page) which automatically sends the visitor to the proper destination site. This has the downside that the destination site is not credited with an inbound link to their site, which is helpful for their search rankings.
  - A second method uses a JavaScript handler to be added to the link that causes a hit on a local page. An example of this is located here:

    www.weidmanconsulting.com/exit-tracking/exit-tracking-javascript.zip

- A mechanism for delivering non-required persistent cookies to visitors is desirable. This allows for more accurate return visitor measurement.
- If it is **absolutely necessary** to distinguish clicks on the same destination page from links placed in different locations on the same page, a tracking parameter can be placed on the destination page URL. Example:

  The home page has a link in the top navigation to the "About Us" page and a second link to the "About Us" page in the body text. The links could be implemented using:

  ```
  href="/aboutus.php?from=topnav"
  href="/aboutus.php?from=homepagebody"
  ```

  Both clicks result in the same "About Us" page display, but they can be tracked separately by an analytics tool.

  But this also creates a duplicate content scenario, so it's not recommended.