Design Recommendations Extract from John Ferrar's article "Search Behavior Patterns" at http://boxesandarrows.com/view/search-behavior

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The following list is a summary of web page and search engine design recommendations made by John Ferrara in the article, "Search Behavior Patterns." It only addresses recommend steps that can be taken to account for factors affecting user behavior and their patterns of web site usage. It does not address web page metadata because content discovery metadata transcends unique user behavior.

1. Support robust cross-linking on each page to allow easy navigation to close matches.
2. Include hierarchical clues like bread crumb trails, as well as nonhierarchical but associative links.
3. Avoid dead-end pages. Always provide an obvious way back.
4. Allow users to filter the search results by category to reduce the number of results and increase relevancy.
5. Provide a numerical count of the number of results returned, and show the result subset with respect to the total number of results, e.g. Results: 1-10 of 165 results. Display at the top of the search results page.
6. Use "and" as the default operator instead of "or." Using "or" will cause the number of results to increase exponentially as more words are added to the query. The search engine should provide higher recall for linked words, e.g. "brake fluid" or "contemporary life style."
7. Don't truncate the total number of results, like providing a count of 100 when there are actually 250 results.
8. Ensure that document or page titles in the search results can be identified easily. Also ensure the type of document or source is easily identifiable, e.g. PDF, Word, PPT, JPG or HTML.
9. Highlight text that matches the keywords, preferably in a different color than the rest of the text, but in compliance with colorblind color-coding. Blue text is assumed to be a hyperlink.
10. Provide the ability for users to change the number of search results from the search page results.

11. Design the search engine so cryptic file names are not highlighted unless there's no title, subject or abstract metadata for the search result.

12. Optimize search results for the most commonly submitted queries you would expect to discover on your site. Use the search logs to determine the top queries and evaluate the quality of the top search results returned. Then optimize the content and metadata for those pages to improve their internal and external ranking. Test and retest.

13. Add a "Best Bets" sidebar to force relevant matches to appear at the top.

14. Provide tools that assist the user in formulating a query. The tools can be linked to a dictionary, a thesaurus and even a list of unique terms used within the domain, for example, the medical services domain. If a user enters the acronym "MEI" by mistake, instead of "MRI", then the tools should suggest the most likely acronym within that domain.

15. Include lists of popular and successful searches as suggested keywords in a sidebar.

16. Provide an expandable snippet of text for each search result and highlight the keywords. In advanced search engines there may be some control over how the snippet is displayed, for example, with or without metadata.

17. Allow users to open links to other external HTML pages, and internal and external documents, in a new browser. In lieu of opening a new browser provide a page-preview capability, most suitable for previewing documents and not HTML pages.

18. Include a visited link color on the results page. Do not use blue or green. Blue is for hyperlinks and avoid green because a small percentage of the population is colorblind. About 10% of the male population cannot distinguish from red and green and another 1 to 2% cannot perceive the difference between blue and yellow. Less than one percent of women are colorblind. A good web site providing information on software UI development to account for colorblindness is at http://www.stcsig.org/usability/newsletter/9910-color-blindness.html.

19. Make use of saved cookie profiles to store the user's previous queries. This can be used to provide better first-search results.

20. Keep an eye out for future search engine capabilities, such as a capability to identify the sequence in which links were visited and provide the sequence number next to the viewed resource.