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Introduction
Search Engine Optimization refers to the efforts taken to get a higher ranking for your site in search engine (e.g., Google or Bing) results. This guide is an overview of best practices that you can employ when developing your site and its content in the Cascade content management system, as well as a review of those contributions that Feinberg’s Web Communications staff makes to optimize your content for search.

Why Is SEO Important?
When your site and content is optimized for search, it’s easier for people using search engines to find you. Estimates vary, but 40 to 50 percent of users click on the first entries given in a search engine results page (SERP), so being high on that first page of results should be a priority.

Please Note
• This guide focuses on those things that you can do to improve your organic search engine listings, not paid listings.
• Google has the lion share of search traffic and sets the tone for other engines’ practices. Most of this guide is focused on optimizing for Google.

Background – A Brief History of Google Search
Over recent years, the Google search algorithm has undergone many updates, both major and minor, with the ultimate goal of creating the most relevant, highest quality search results for their users. It has allowed their service to assess web pages in a way that’s more like a human. Here is an overview of some major iterations.
• **Panda (2011):** Looked to better measure content quality and user experience (value of content above the fold); impacted 12% of searches
• **Penguin (2012):** Moved closer to the goal for value, content, user experience; impacted 4% of searches
• **Hummingbird (2013):** Refined Latent Semantic Indexing to assist with contextual search and semantics; wants writers to focus more on value and not over-optimizing; impacted 90% of searches
• **Pigeon/ Secure Socket Layer [SSL] (2014):** Targeted locally relevant results and prioritizing secure sites
• **Mobilegeddon (2015):** Prioritized mobile-friendly sites (like Feinberg); 60% of searches affected

These changes are positive because they get us closer to a state in which there is no way to game the system – you have to put in the work and develop relevant content to get the top ranking. As a user, they make out time spent searching better used.

Step One: SEO Planning
Good SEO content offers useful information presented in an engaging, scannable format. **Scanning** is an important concept to remember when developing web content, as readers scan the material presented – mostly the first two paragraphs (above the fold), subheadings and bullets – to find the information they want.
Your Partners: Web Communications
Web Communications is with you in your planning and execution of your site, as well as there to support you after your site launch. We provide more than a new look and feel. Our service takes SEO into account at every phase of the project.

- **Competitive Analysis:** Understand competition’s content, and what is and isn’t working
- **Usability:** Develop simplified navigation based on your goals and audience needs
- **URLs:** Create URLs that include keywords built from a simplified directory structure
- **Content Construction and Development Assistance:** Provide content strategy, templates and one-on-one assistance to make you web content all it can be
- **Responsive:** All Feinberg sites are built in a responsive template, meaning the site layout will optimize for the device on which the user is viewing (especially important after Google’s Mobilegeddon update)

Your Role: Developing Purposeful Websites
Your role as site owner is to focus your content for your priority audiences and creating pages with clear purpose.

Know Your Audience
Having a good sense of our audience is important to the SEO process. At Feinberg, we prioritize the student and research-related audiences to align with our organizational goals. We are concerned with the patient audiences who may find themselves on our site through search, but we link them to affiliated hospitals and care sites rather than include original patient care content.

Keywords
When you use Google or Bing, you type a word or phrase related to your topic of interest into the search field. For example, if you were a medical student wanting to research cardiology residency opportunities in Chicago, you might enter “cardiology residency Chicago.”

The search engine will then take those “keywords,” match them to the sites and pages that it has evaluated, or indexed, and provide a list of findings.

Choosing Keywords
A good keyword is one for which your target audience is using to find content like yours. An even better keyword is one that’s not only searched for regularly, but also has little competition among other sites.

Long tail keywords (e.g., how to apply to Feinberg medical school) tend to have less search volume than short tail words (e.g., medical school), but they also tend to have less competition in the search engines, thus it can be easier for you to get top rankings for these words. According to Moz.com, long-tail keywords make up 70%
of all searches. They signify a more engaged user, someone who knows what they want.

So, how do we determine the keywords for which we optimize our content? We need to perform a keyword analysis and develop a list through your findings.

**Tips for Developing Keywords Lists**

Here are some steps you can follow for a meaningful, free keyword analysis.

- **Google Analytics**
  If your site is already being analyzed by Google, one of the elements of information you can gather is a list of terms that users are searching to find your information.

- **Guess**
  Develop a list that you can analyze.
  - Write down terms that you think are important
  - Ask your team what words and terms they think are important
  - Eliminate marketing jargon: people don’t take the time type “world-class” or “industry-leading” into a search field; marketing-speak doesn’t have value to search engines

- **Autosuggestion Tool**
  Type a keyword into your search box and a dropdown menu of related long-tail keywords will appear; include appropriate terms into your list of possibilities. Please note that these suggestions are not related to search volume.

- **Google AdWords (adwords.google.com)**
  Once you’ve got your lists of keywords and terms, you can analyze how popular they are from a user perspective. On AdWords, look for the Keyword Planner under the Tools dropdown menu, and add your list of terms into the “Get search volume data and trends” to learn about their performance. You can also add some more basic keyword terms to the “Search for new keywords using a phrase, website or category.”

What you want to look for:
  - Keywords with low competition with a good amount of Local Monthly Searches are your goal. Content with this information is something users want, but not many existing sites are providing it.
  - Keywords with no results are an opportunity to learn about what people are searching for related to the topic (the **Keyword Ideas** section of the page), so you can use both types of terms in your content development (ex. cardiology residency may be too specific, but the keyword tool shows more general terms you can use)
  - Keywords with low or no results means that people aren’t searching for content using that combination of words. Before you cross this off the list, play with the terms and see if some combination works (ex. Chicago MD Program has no associated metrics, but MD Programs does, as well as many keyword ideas).
Don’t let the paid search information on this tool scare you. Sign up and use of the keyword tool is free. There are many paid keyword tools or services available if you want to make the investment. But you can develop a strong list of keyword terms on your own with a small investment of time.

**Getting Creative with Keywords**

Search engines consider the environment in which keywords sit. Consider these additional ways of improving search with your content.

- **Secondary keywords**
  Use more specific keywords (e.g. Chicago Cardiology as well as cardiology). The traffic may be less, but it’s likely to be of a higher quality.

- **Keyword stemming**
  Stemming includes adding prefixes, suffixes, and pluralizing your keywords (dog: doggy, dogs). Search engines make these connections.

- **Latent Semantic Indexing (LSI)**
  LSI is the way search engines assess intra-page content relationships. For example, if there is a page about cardiology, you’d expect to see words like “heart” and “cardiovascular.” Search engines like to see those relationships on a page as it suggests that the content is truly relevant to what the user wants.
    
    - Since the roll out of Hummingbird, this has become an even more important part of your SEO list development; take the time to pick apart long-stem keywords and reconstruct them with synonyms. This can help you diversify your content in an organic, readable way that connects with keywords without feeling forced.
Step Two: SEO Execution

Once you have determined your audience and developed your list of analyzed keywords, you can start employing them in your design, content, and code. Looking at how you create a page in Cascade, here are some places where you can use your chosen keywords for maximum impact.

**Part One: Design**

Web Communications developed the current templates to encourage use of keywords and optimize search.

**Title**

Search engines acknowledge the different treatments and rankings that you give content on a given page, and will give more value (and result page prominence) to pages that use keywords in the title line.

- Cascade tags the content in the Title field with the H1 tag.
- Titles should be short (6-7 words) and the keyword should be near the beginning.
• The **Display Name** field in Cascade should also contain keywords, even if it cannot include the full page title. This field populates the navigation and **breadcrumbs**

**Breadcrumbs**

**Breadcrumbs** are the single lines of text that shows the page location in the site hierarchy – built around page titles – and are helpful for search.

- Google sometimes includes breadcrumbs in search results.
- The breadcrumb area, when keywords are used, is an easy way to increase the page’s keyword density.
- Feinberg Web Communications policy is to include breadcrumbs on all pages, except the Feinberg Homepage.
  - Format: Feinberg Home>Department Site Home>Subsection Landing Page Name>Subpage Name>etc.

**Navigation**

The organizational structure that you develop for your site with Web Communications is meant to be both friendly to your user and consistent with other Feinberg sites. A consistent navigation across all sites gets users comfortable with the information structure, and makes content easier to find. Search engines also give greater value to sites that have clear and purposeful information architecture.

**Subheadings**

The design is such that subheadings on the page are given H2 and H3 status in the html. Content with this treatment is more attractive to search engines. Use keywords in subheadings for greater impact.

**Part Two: Content**

We are writing for people first. The same things that catch a visitor’s eye will get a search engine’s attention. Focus your content and keyword usage using these guidelines.

- **Page Title:** This area has been mentioned before, but an informative page title is the beginning of a conversation with a reader.
  - **Weak:** What Do You Want to Learn?
  - **Strong:** Educational Programs in Dermatology

- **First two paragraphs:** This area is most important to the web reader, and very important to the search engine. Get to the point of your page in this area or your reader will lose interest or think he’s not in the right place.

- **Subheadings:** Keywords in subheading (Heading 2 and Heading 3) makes content easier to scan for the reader, and search engines give higher value to keywords when within the heading tags, just as they do with title tags. Headings should inform the reader on page structure(e.g., the heading Application Process, should be followed by complete application information, including key dates, contact information, and a listing of requirements).
• **Descriptive Anchor Text:** When you create a link, the anchor text is the clickable content. *Click here* doesn’t tell us anything about where we are going. Use keywords so users and search engines can follow along.

**Personality**
Readers are looking for facts in your web content. Aim to make page titles, subheadings, links, and page content literal, direct, and succinct. You can be creative, but avoid wit and sarcasm, and keep it professional.

**Keep It Fresh**
Search engines like “fresh” (newly updated) web pages. Updating your pages frequently can help push them to the top of the rankings.

**Links**
Links using descriptive anchor text are important to search. **Internal links** connect pages and content within the same site, and helps search engines navigate related content. **Backlinks** are incoming links coming to your site from an outside source.

Backlinks are especially valuable, as the search engine reads it as an endorsement of your content’s credibility. Easy ways to introduce back linking to your Feinberg site include:

- Blogs
- Feinberg [News Center](#) (built in Wordpress)
- Lab sites
- [Social Media](#) (Facebook, Twitter)
- Sites dedicated to events, projects or conferences where faculty members speak (this may take a little faculty training on the site manager’s part, or creation of boilerplate information about the site that faculty can provide along with their bio)

**Linkbait**
Linkbait is informative, interesting content that outside users link to because they find it valuable. It’s back linking that can expand your reach and improve your value to search engines. Possible candidates for linkbait in the Feinberg world:

- Compelling images and infographics
- Interesting stories about research findings
- Provocative headlines express the writers excitement for the work or subject matter (while incorporating keywords)

Of course, you can’t control how others will react to your content. But you can look for opportunities to infuse your content with a personality, which can position it to go further than your site. Approach your content with the mindset than everything on your site should be linkbait-worthy in its quality, and it will only serve you.

**Content Pitfalls**

- **Keyword Stuffing:** Heavy keyword loading into a page can look like advertising to search engines. You want to use keywords frequently, but it
should not make up more than 4 percent of the content on your page. If your keywords make up more than that 4 percent, the writing is probably clumsy.

- **Bolding:** Search engines are more likely to consider this advertising instead of helpful, informative content. Use meaningful subheadings with keywords instead.

**Part Three: Code**

Let’s return to the Cascade page view. Many page elements that seem to have little to no impact on the reader can be used to improve SEO. The following elements can be used when building a page in Cascade to make it SEO-friendly.

**Description**

Some search engines (including Google) use this meta description display a summary of the listings on the search results page; well written, informative descriptions can make the user choose your listing.

- Make the description action-oriented, brief and descriptive (e.g., Discover what makes Feinberg’s Cardiology Residency Program unique; hear from current residents.).
- Keep your description to 150 characters.

**Keywords – META tags**

In the keywords field, you can put META tag information. Search engines don’t value this content anymore, but it can be used as an organizing tool for multiple content managers, informing multiple editors for what terms a page or site is being optimized.
URL
Web communications assists departments in developing URLs based off the simple organizational structure of the site content. Search engines reward simple URLs that use key words.

• The title of the page will often inform the information in the URL assigned to the page (so if you include key words in the title, it will be included in the URL).
• Hyphens between the words in an URL increase readability and help with SEO rankings. This applies both to hyphens in domain names and in the rest of the URL.

Non-text Elements
Search engines depend on words for indexing pages, so follow these best practices for non-text content elements.

Images
Graphics and images should be used for illustration and decoration, not navigation. Give your images meaningful names prior to uploading them into Cascade (e.g., proper names, event names and dates).

Documents
Give your PDFs and Word documents descriptive titles prior to uploading them in Cascade.

Please note: When assigning names to these assets, use dashes (-) in between words.

Step Three: A Matter of Trust
Relevancy is Google’s promise to its users. Their user’s trust is their priority. With that knowledge, your job is to develop content that Google users can trust: well written, current, accurate and error free.

But if you create a new site including content that meets all this criteria, it doesn’t necessarily mean you’ll rocket to the top of the SERP. Age (you need to have a trustworthy name... which northwestern.edu provides, and you need your site indexed as soon as possible – which Communications assists with) and authority (links to your site from blogs, etc.) also play a role in how your site performs. Trust is something you earn and maintain through a deep commitment to your site.

Step Four: Moving Forward
Search engine optimization, like the web, is a living thing, and you will have to continue to regularly tend to the content after its initial publication. Continue to develop content that is informative, succinct, and scannable, and you will attract the attention (search engine and human) that you desire.
**Beyond Your Site – Social Media and SEO**

Social Media (e.g., Flickr, Facebook, YouTube, Google+) is a great way to develop your online presence and those desired in-bound links. When developing your content for social media channels, remember some universal tips:

- **Use Your Words:** optimize your file names (videos and images) and descriptive titles using your keyword list.
- **Make connections:** Web Communications can assist you in adding social media icons to your site; we sure to connect your social media accounts back to your Feinberg site.
- **Tag it:** using relevant, meaningful tags are another way to connect your content to search; use them in:
  - Images (Facebook, Flickr)
  - Tweets: hashtags in tweets help Twitter searchers find content they want; connect your tweets to the university and subject matter using helpful hashtags:
    - #northwestern: the university hashtag, but still specific enough to be meaningful
    - #NUFeinbergMed: the medical school’s twitter handle is @NUFeinbergMed
    - #NUmatchday: Connect your participation to university events (such as Match Day)
    - #[disease]: this will probably bring your keywords into play; call attention to new research being done in your department by tagging your tweet with the impacted disease or condition
    - #[awareness]: awareness days or events for various conditions or diseases are an opportunity to inform the public about the research done at Feinberg; search Twitter for hashtags that tie to the work done within your department

For SEO tips specific to the social media channel, visit the page dedicated to the channel under [Feinberg’s Social Media Guidelines](#). For assistance on assessing your need and developing your social media presence, contact Nicole Mladic at 312-503-2314.
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