Libraries in Search Engines

Search Engine Optimization (SEO) for Libraries

Florida Library Webinars
Novare Library Services
April 2, 2014

Patrick OBrien+
Semantic Web Research Director
Montana State University Library

Jason Clark
Head of Library Informatics & Computing
Montana State University Library
@jaclark #libseo

A Research Team Effort

Scott Young
Digital Initiatives Librarian at Montana State University

Jason Clark
Head of Library Informatics & Computing at Montana State University Library

Patrick OBrien
Semantic Web Research Director at Montana State University Library

Kenning Arlitsch
Dean of the Library at Montana State University. His book, co-authored with Patrick OBrien is titled Improving the Visibility and Use of Digital Repositories through SEO, and was published in February 2013.

Today's Agenda

- What is Search Engine Optimization (SEO)?
- Why do SEO?
- Black Hat vs. White Hat SEO
- Recommendations
- Key SEO techniques
- Resources
- Questions

What is SEO for Libraries?

The act of creating indexable content for commercial search engines (SE)...

... to increase access, visibility and use of library content and resources ...

...by patrons that value it

Why do SEO?

- ~200 million people in the US use the Internet[1]
  - 81% of U.S. adults
  - 95% of U.S. teens
- The US submits 19+ Billion queries per month to commercial SE[2]
- Google owns 67% of these queries

[1] Pew Research Center. “What Internet users do online: Pew Research Center’s Internet & American Life Project,” 2012. http://pewinternet.org/Trend-Data-(Adults)/Online-Activites-Total.aspx

[2] comScore. “comScore Releases February 2014 U.S. Search Engine Rankings,” February 18, 2014. http://www.comscore.com/Insights/Press_Releases/2014/2/comScore_Releases_January_2014_US_Search_Engine_Rankings

"Search engines continue to dominate, topping the list of electronic sources most used to find online content (93%), followed closely by Wikipedia (88%). The key difference in usage between search engines and Wikipedia is the frequency - 75% of students who use search engines do so daily, compared to 20% of those who use Wikipedia."

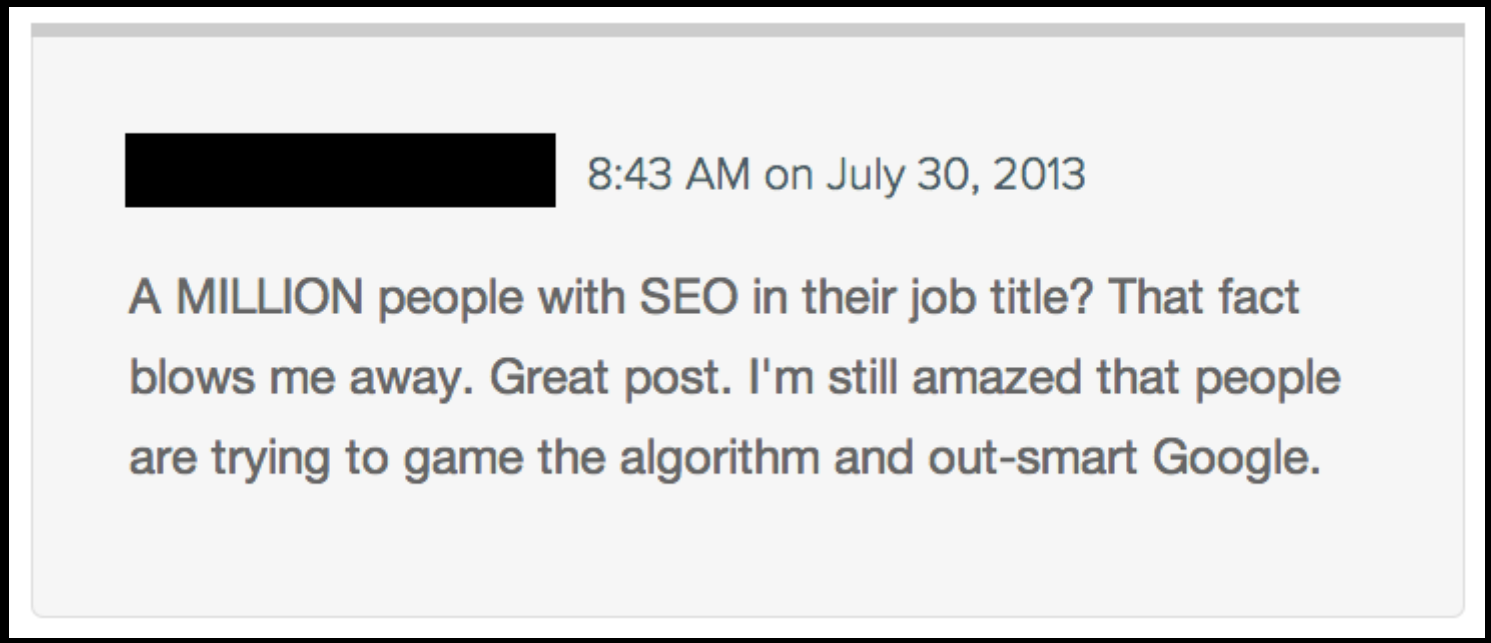
Perceptions of Libraries, 2010: Context and Community: a Report to the OCLC Membership. OCLC, 2011.

http://www.oclc.org/content/dam/oclc/reports/2010perceptions/2010perceptions_all_singlepage.pdf
http://www.oclc.org/content/dam/oclc/reports/2010perceptions/collegestudents.pdf

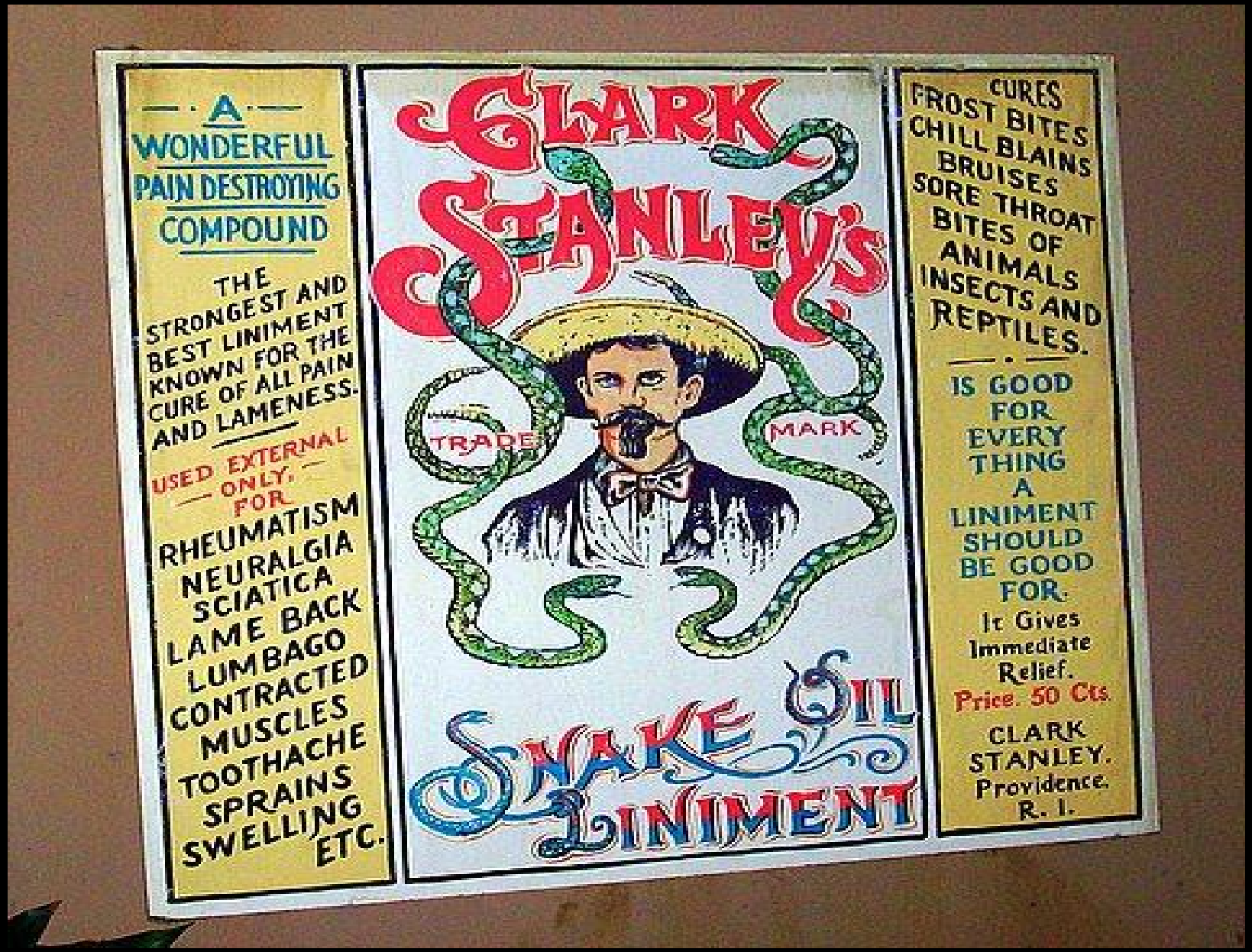
"Discovery happens elsewhere."

- Lorcan Dempsey (in 2007)

Vice President and Chief Strategist
Online Computer Library Center (OCLC)
http://orweblog.oclc.org/archives/001430.html



Black Hat SEO



http://www.flickr.com/photos/22245459@N06/2386354917
https://en.wikipedia.org/wiki/Clark_Stanley

Black Hat SEO = Banned

- Using deceptive redirects
  - "Cloaking"
  - "Shadow" domains
- Multiple "Doorway Pages" with poor content optimized for different keywords
- "Link Schemes" trying to game the SE
- "Hidden" text or links
- Anything "sneaky" or untrustworthy

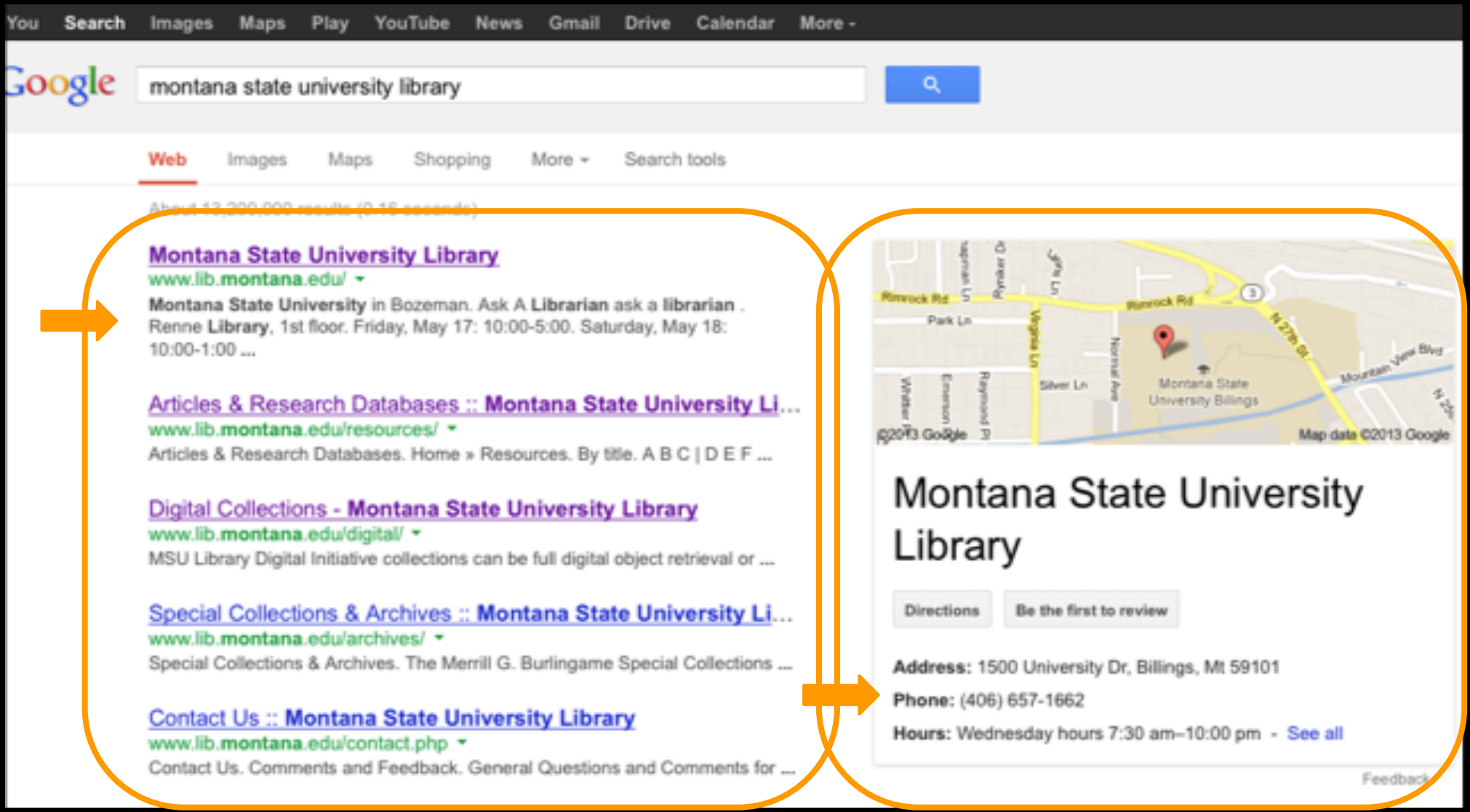
White Hat SEO

- SE approved "Webmaster Guidelines"
- Focus on improving user experience
  - Unique & accurate content
  - User relevant vocabulary & keywords
  - Intuitive site architecture
- Build Stability & Trust

Recommended Library Process

1. Institutionalize SEO
   - Accurate Measurement Tools
   - Strategic Plan
2. Traditional SEO
   - Get Indexed
   - Get Visible
3. Semantic SEO
   - Get Relevant

Google – Baseline May 15 2013



Google – April 2, 2014

Google montana state university library Sign in

Web Images Shopping Maps News More Search tools

About 14,600,000 results (0.35 seconds)

Montana State University MSU Library
www.lib.montana.edu/
Montana State University (**MSU**) **Library** is here to help students, faculty, and the people of Montana with their quest for information and research.
Google+ page · Be the first to review

Renne Library, Bozeman, Mt 59717
(406) 994-3139

About Us
About Us. MSU Library's building, Renne Library, was named ...

Request
Request materials from other libraries using Interlibrary Loan ...

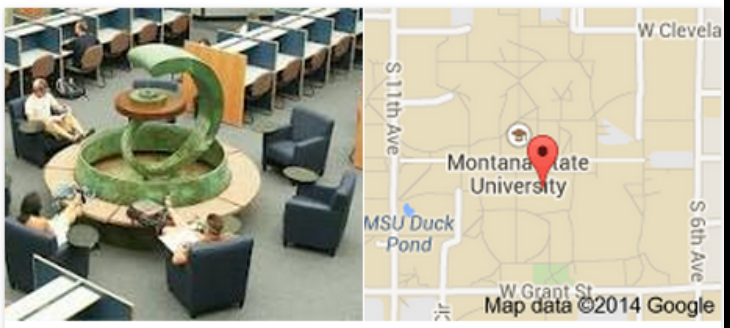
Articles & Research Databa…
By Subject - Popular - Web of Knowledge Combined - ...

Contact Us
Contact Us. Comments and Feedback. Submit your ...

Find
Search the library catalog to find books, movies, maps, and ...

AZ Site Index
A-Z Site Index. Browse by page title: A B C | D E F | G H I | J K L ...

More results from montana.edu »



Montana State University Library

Directions

Montana State University Library is the academic library of Montana State University, Montana's land-grant university, in Bozeman, Montana, United States. It is the flagship library for all of Montana State University System's campuses. Wikipedia

Address: Renne Library, Bozeman, Mt 59717

Setup Measurement & Evaluation

1. Associate a single Google Account with your Institution
   (e.g., msuseo@gmail.com)
2. Establish baseline metrics
   a. Google Analytics (gAnalytics)
   b. Google Webmaster Tools (gMaster)
3. Activate Google Services
   a. Google Places for Business (gPlaces)
   b. Google+ (G+)
   c. Google AdWords (gAdWords)

Make Improvements

1. Address gWebmaster "errors"
   a. Ensure content is indexable
   b. Reduce Index noise
2. Claim, consolidate and standardize all listings
   a. gPlaces
   b. Google Maps (gMaps)
   c. G+
3. Improve On-Page Optimization

Creating Indexable Content

- User intuitive hierarchy & site architecture
  - Short URLs containing keywords
  - Simple directory structure
  - Incorporate "Breadcrumbs"
  - Single URL to each page
  - Easy navigation between homepage and any webpage, and back

“Every page should be reachable from at least one static text link.”
https://support.google.com/webmasters/answer/35769

Creating Indexable Content

- Link a human readable HTML sitemap from homepage
- Implement machine-readable XML file(s) to provide SE content **inclusion** direction
  - "sitemap index"
  - "sitemap" file(s)

“Google adheres to Sitemap Protocol 0.9 as defined by sitemaps.org.”
https://support.google.com/webmasters/answer/156184

Reduce “Noise” in the Index

Implement robots.txt

- text file at top level / root of web site
- Provides SE content **exclusion** rules

```
Disallow: /staff/
#allow primary mobile page
Allow: /finding-aids/m/index.php
Allow: /finding-aids/m/$
```

Reduce “Noise” in the Index

- Eliminate duplicate content
- Dynamic pages, search result pages
- Ensure every page is unique

Techniques:

1. robots.txt directives
2. link relations and index directive markup

Reduce “Noise” in the Index

Link relations and index directive markup

- HTML page <head> markup that provides canonicalization and index exclusion rules

```
<link rel="canonical" href="http://arc.lib.montana.
edu/finding-aids/item/23" />

<a rel="nofollow" href="http://www..lib.montana.
edu/login.html">User Login</a>

<meta name="robots" content="nofollow,noindex" />
```

Claim, consolidate and standardize listings

1. Search gMaps and G+ for all variations
   a. Name of library
   b. Name of library building
   c. All library phone numbers
2. Login gPlaces with Institutional Google Account
3. Search gPlaces & claim ownership of all variations from step 1

Claim, consolidate and standardize listings

4. Identify gPlaces variation with G+ "pre-approved custom URL"
5. Consolidate under gPlaces variation with G+ "pre-approved custom URL"
6. Complete and standardize consolidated gPlaces and G+ profiles
    a. Name
    b. Address
    c. Phone Number(s)

Improve On-Page Optimization

1. Keyword phrase analysis
   a. Patron relevant
   b. Low to Moderate competition
   c. High volume
2. Write / rewrite Web page
   a. HTML <title>
   b. <description> metatag
3. Ensure
   a. all links contain descriptive "Anchor Text"
   b. Use <H1>, <H2> HTML tags to "outline" the page around the topic (i.e. <title>)
   c. Text is natural, easy-to-read and relevant to the page outline

Keyword Phrase Analysis

1. Use the vocabulary of your patrons
2. Which keyword phrase?
    a. institutional repository
    b. academic research
    c. research papers
    d. open access library

Keyword Phrase Analysis

- Use Google AdWords

Search terms	Avg. monthly searches	Competition	Suggested bid
research papers	3,600	High	$3.53
academic research	880	Low	$1.40
institutional repository	210	Low	$0.00
open access library	110	Low	$0.00

Keyword Phrase Analysis

- Check Singular vs Plural

Search terms	Avg. monthly searches	Competition	Suggested bid
research paper	14,800	Medium	$3.13
research papers	3,600	High	$3.53

Writing Titles and Descriptions

Writing web copy for the robot and the human

```
<title></title>

<meta name=”description” />
```

Writing Titles and Descriptions

<title>

"Keyword Phrase Topic - Context"

Example:

“Staff Directory - Contact Information - Montana State University (MSU) Library”

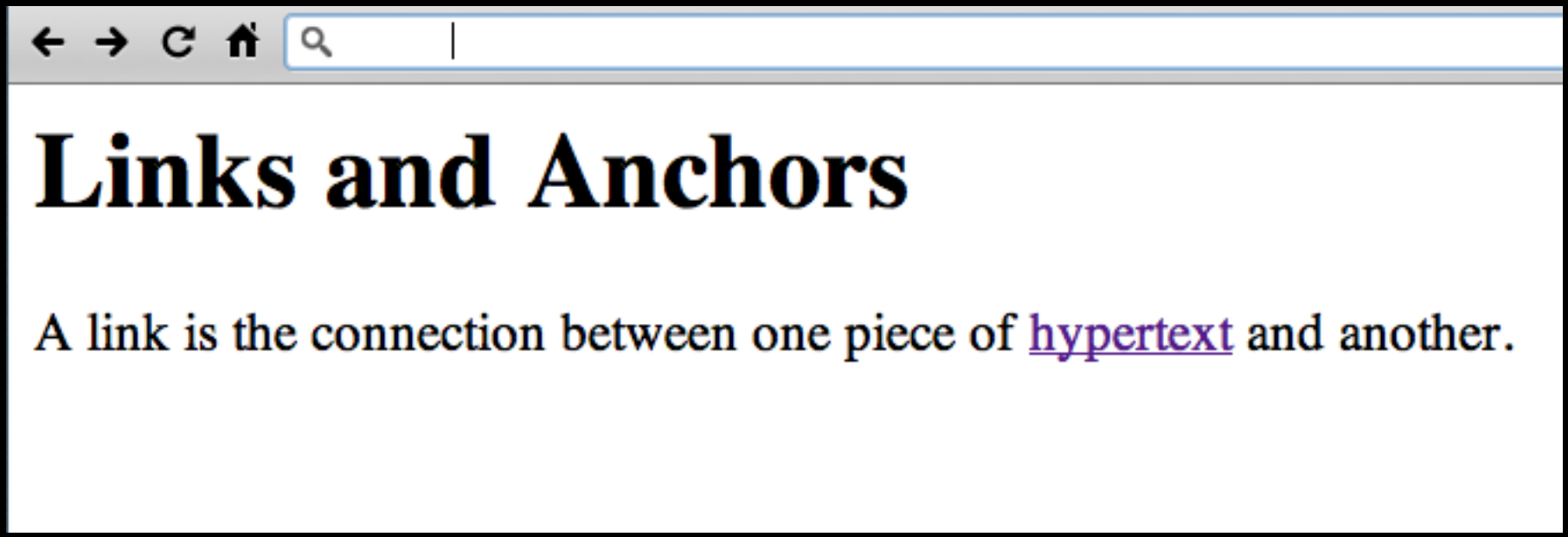
Writing Titles and Descriptions

<description>

a short, declarative sentence that incorporates a reversal of the page's <title> keyword phrase topic and context

Example:

"Montana State University (MSU) Library staff directory and employee contact information that includes library departments, roles, job titles, and phone numbers."




```
1 <title>Hypertext Links</title>
2 <h1>Links and Anchors</h1>
3 A link is the connection between one piece of
4 <a href=WhatIs.html>hypertext</a> and another.
```

http://www.w3.org/History/19921103-hypertext/hypertext/WWW/Link.html

Introducing Semantic Markup

- HTML5 semantic tags and microdata that helps classify page types and types of content on the page

“If Google understands the content on your pages, we can create rich snippets—detailed information intended to help users with specific queries.”
https://support.google.com/webmasters/answer/99170?hl=en&ref_topic=1088472

Digital Historical Photograph Collection - Montana State University Library

Item: **Women posing on college locomotive engine**

Title: Women posing on college locomotive engine
Creator: unknown
Date: unknown
Description: Women posing on a college locomotive engine.
Notes:
Physical Description: Photo print - Black and White
Subjects: Locomotive
Keywords: locomotive
Photograph ID: parc-000432

Higher quality/resolution
Persistent link
Bookmark and Share
Get embed code
<a title="Women posing on college locomo

Back to MSU Photos Homepage

© Copyright 2001-2013 Montana State University Library

BM (Before Microdata)

Digital Historical Photograph Collection - Montana State University Library

Item: **Women posing on college locomotive engine**

Title: Women posing on college locomotive engine
Creator: unknown
Date: unknown
Description: Women posing on a college locomotive engine.
Notes:
Physical Description: Photo print - Black and White
Subjects: Locomotive
Keywords: locomotive
Photograph ID: parc-000432

Higher quality/resolution
Persistent link
Bookmark and Share
Get embed code
<a title="Women posing on college locomo

Back to MSU Photos Homepage

© Copyright 2001-2013 Montana State University Library

AM (After Microdata)

```
<div id="main">
<meta content="http://arc.lib.montana.edu/msu-photos/objects/thumb-parc-000432.jpg"
/>
...
<h2 class="mainHeading">Item: <strong>Women posing on college locomotive
engine</strong></h2>
<ul class="item">
<li>
<ul class="metadata">
<li class="object">
<a title="zoom &amp;amp; scan view - Women posing on college locomotive engine" href="
/msu-photos/viewer.php?id=432" alt="Women posing on college locomotive engine"><img
src="/msu-photos/objects/parc-000432.jpg" alt="Women posing on college locomotive
engine" />
<span>&#43; zoom</span>
</a>
</li>
<li class="describe">
<p><strong>Title:</strong> Women posing on college locomotive engine</p>
<p><strong>Creator:</strong> unknown</p>
<p><strong>Date:</strong> 1931-05-15</p>
<p><strong>Description:</strong> Women posing on a college locomotive engine.</p>
...
<p><strong>Physical Description:</strong> Photo print - Black and White</p>
...
<p><strong>Keywords:</strong> locomotive</p>
<p><strong>Photograph ID:</strong> parc-000432</p>
</li>
</ul><!-- end metadata <ul> -->
</li>
</ul><!-- end item <ul> -->
</div>
```

```
<div id="main" vocab="http://schema.org/" typeof="ItemPage" >
<meta property="thumbnailUrl" content="http://arc.lib.montana.edu/msu-
photos/objects/thumb-parc-000432.jpg" />
...
<h2 class="mainHeading">Item: <strong><span property=" name">Women posing on college
locomotive engine</span></strong></h2>
<ul class="item">
<li>
<ul class="metadata">
<li class="object">
<a title="zoom &amp;amp; scan view - Women posing on college locomotive engine" href="/msu-
photos/viewer.php?id=432" alt="Women posing on college locomotive engine"><img
property="about image primaryImageOfPage" src="/msu-photos/objects/parc-000432.jpg" alt="
Women posing on college locomotive engine" />
<span>&amp;#43; zoom</span>
</a>
</li>
<li class="describe" vocab="http://schema.org/" typeof="Photograph">
<p><strong>Title:</strong> <span property= "name">Women posing on college locomotive
engine</span></p>
<p><strong>Creator:</strong> <span property=" author">unknown</span></p>
<p><strong>Date:</strong> <span property= "dateCreated">1931-05-15</span></p>
<p><strong>Description:</strong> <span property= "description">Women posing on a college
locomotive engine.</span></p>
...
<p><strong>Physical Description:</strong> <span property= "genre">Photo print - Black and
White</span></p>
...
<p><strong>Keywords:</strong> <span property= "keywords">locomotive</span></p>
<p><strong>Photograph ID:</strong> parc-000432</p>
</li>
</ul><!-- end metadata <ul> -->
</li>
</ul><!-- end item <ul> -->
</div>
```

Schema.org

A lingua franca for web classification and markup

Google, Bing, Yahoo, Yandex

SEO in Libraries

- Arlitsch, Kenning, and Patrick S. O'Brien. Improving the Visibility and Use of Digital Repositories Through Seo: A Lita Guide. Chicago: ALA TechSource, 2013. Print.
- Arlitsch, Kenning, and Patrick S. O'Brien. "Invisible institutional repositories: Addressing the low indexing ratios of IRs in Google Scholar." Library Hi Tech 30.1 (2012): 60-81.
- Onaifo, Daniel, and Diane Rasmussen. "Increasing libraries' content findability on the web with search engine optimization." Library Hi Tech 31.1 (2013): 87-108.

pinboard.in tag

pinboard.in/u:jasonclark/t:libseo/

Questions?