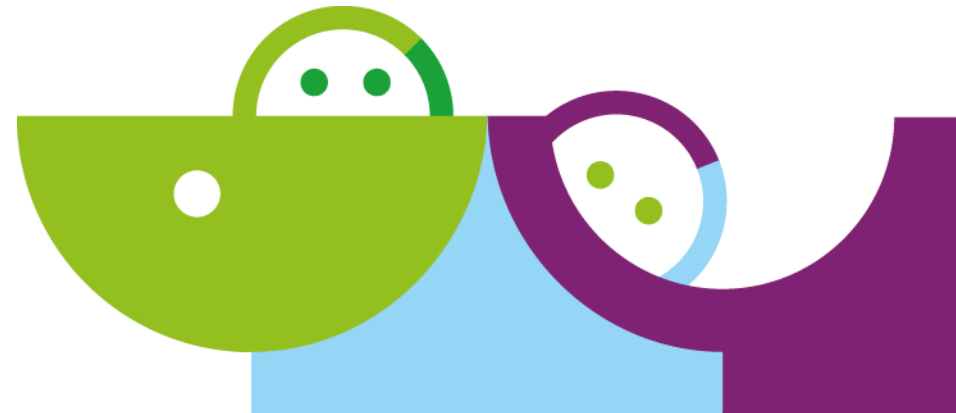


Exceptional Digital Experience and *Search Engine Optimization*

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Please Note

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Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.



What is Search Engine Optimization about?

Crawlability

Web crawlers can access and process the content of your website.

Findability

Users want to find information on the web that matches their query.
Does your web site match their queries?

Relevance & Ranking

What makes your content unique?

Search result list appearance

Made it on the top, but got no clicks.

Mobile support

This is not an option.



Crawlability – The Basics

- **Pages that are not crawled aren't indexed**
- **Good site structure – information organization**
 - Keep information on each of the web pages focused
 - Site structure is determined only through the actual link structure
- **Fast page load times and clean well-formed pages**
- **Use redirect for moved (301) & deleted (410) pages but avoid sneaky redirects**
 - Don't even think about redirecting crawlers only
- **Optionally use robots.txt to control crawling of pages**
- **Sitemaps protocol XML to inform crawler about pages and their update frequency**
- **Canonicalize URL's to avoid duplicates index entries**



Crawlability – How Portal supports you

- **Easy to create & manage good structure**
 - Toolbar (expect more to come)
 - Page WCM content associations
- **Page validation feature to control HTTP status code for obsolete page URL's**
 - Page URL validation feature
<https://ibm.biz/BdXv8b>
 - CF03 WCM path info validation and more control for 404/410
<https://ibm.biz/BdXv8y>
- **Search Sitemap Utility Portlet**
 - Define list of relevant pages and generate Sitemaps compliant XML file
<https://ibm.biz/BdXv8V>
- **Search Crawlers/Indexer follows all GET-URLs of a site**
 - Multiple URL's to same page/content would result in multiple entries in the search index
 - Lower ranking of the individual URL
- **Solution: URL normalization**
 - Default client CC/PP profile to detect crawler agents
 - For crawlers all URLs will be normalize
<https://ibm.biz/BdXmnM>



Findability

- Create interesting and relevant content
- What search terms **users** choose to find information like yours?
- Adjust the keywords on your web pages accordingly
- Flash objects and images can hide essential information from the crawlers
 - Think about a non Flash version of your page
 - Add ALT attribute to pictures
- Make use of Portal's built-in **Portal Search Engine**
 - Crawl the public pages using the standard 'Web site' crawler
 - Check for yourself how well information can be found on your site
- **Active Site Analytics** catches search related information:
zero results returned, frequently used search terms ...
 - http://www-01.ibm.com/support/knowledgecenter/SSHRKX_8.5.0/mp/admin-system/sa_asa_aggr_tags.dita




You are not alone

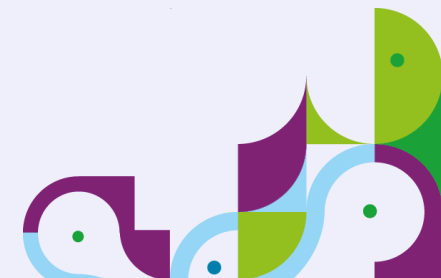
You followed the usual SEO recommendations:

- More than one significant keywords
- Keywords in the 'title'
- Keywords in the headings and in the body
- Friendly URL with significant keywords in the relative path
- Keywords in alternate text for images
- more ...

... but still your web pages get no top ranking



Photo: Boris Štromar, CC BY 3.0 



Relevance

- **tf-idf** (term frequency - inverse document frequency)

Simplified formula:

$$tfidf(t, d, D) = tf(t, d) \times \log \frac{N}{n_t}$$

A high term frequency in the given document $tf(t, d)$ and a low document frequency of the term n_t in the whole collection of documents N results in a high $tf-idf$.

- Conclusion:
 - Use unique names to make a difference



Relevance

tf-idf example: Search for Lotus

Web Images Maps News Videos More Search tools

About 194,000,000 results (0.42 seconds)

Home 2015 | Lotus Cars

www.lotuscars.com/

The Lotus Evora 400 flagship supercar delivers a pure and focused experience from Lotus, combining high performance with legendary Lotus benchmark ...

[Our Cars](#) - [Evora Range](#) - [Exige Range](#) - [Sports Car Range](#)

Lotus - Wikipedia, the free encyclopedia

en.wikipedia.org/wiki/Lotus

Lotus may refer to: Contents. [hide]. 1 Botany; 2 Motor cars; 3 Music; 4 Places; 5 Religion; 6 Other; 7 See also. Botany[edit]. List of plants known as Lotus, various ...

[Lotus Cars](#) - [List of plants known as lotus](#) - [Nelumbo nucifera](#) - [Lotus \(genus\)](#)

Lotus Cars - Wikipedia, the free encyclopedia

en.wikipedia.org/wiki/Lotus_Cars

Lotus Cars is a British manufacturer of sports and racing cars, famous for its Esprit, Elan, Europa and Elise sports cars and for the highly successful Team Lotus ...

In the news



Force India happy with Lotus 'gift'

[Planet F1](#) - 22 hours ago

However, Lotus probably should have scored more points as Grosjean was running higher ...

[Lotus Formula 1 team baffled by struggle for Canadian GP race pace](#)

[autosport.com](#) - 23 hours ago

[Coming's Lotus NXT Glass To Grow On Declining Panel Prices, Higher Resolution](#)

[Forbes](#) - 1 hour ago

[More news for Lotus](#)

IBM Collaboration Solutions - Lotus software

www.ibm.com/software/lotus

Content authoring, workflow, management, integration and delivery. Integrates with Lotus

Lotus Cars

Car manufacturer

Lotus Cars is a British manufacturer of sports and racing cars, famous for its Esprit, Elan, Europa and Elise sports cars and for the highly successful Team Lotus in Formula One.

[Wikipedia](#)

CEO: [Jean-Marc Gales](#)

Founder: [Colin Chapman](#)

Founded: 1952

Headquarters: [Norwich, Norfolk, United Kingdom](#)



[Feedback](#)

See results about

[Lotus F1](#)

Lotus F1 Team is a British Formula One racing team. The team has competed under the Lotus name ...



[Lotus Software \(Software company\)](#)

Founder: [Mitchell Kapor](#)

Founded: 1982



[Lotus \(Band\)](#)

Members: [Mike Rempel](#), [Mike Greenfield](#), [Chuck Morris](#)

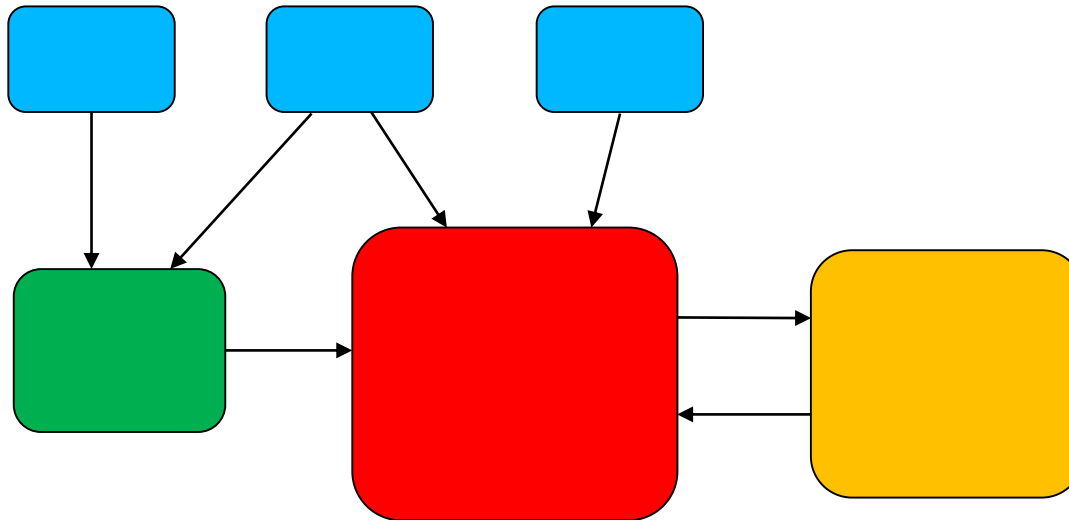
Origin: [Indiana, United States](#)



Ranking

PageRank

- *Random Surfer Model*
- *More **important** web page receive **more** links from other web pages*
- *The higher a **web page rank**, the higher the **rank** of a **referenced** web page*



Ranking

Interesting to know ...

- **Ranking** is determined by over **200** factors
 - <https://support.google.com/webmasters/answer/70897?hl=en>
 - <http://googlewebmastercentral.blogspot.ch/2011/06/beyond-pagerank-graduating-to.html>
- **Search ranking factors** as described by
 - <http://moz.com/search-ranking-factors>
- Keywords in **description** and **keywords** meta tags not used for ranking
 - <http://googlewebmastercentral.blogspot.co.uk/2009/09/google-does-not-use-keywords-meta-tag.html>
- **Mobile** support boosts your ranking for mobile users
 - <http://googlewebmastercentral.blogspot.co.uk/2015/04/rolling-out-mobile-friendly-update.html>
- **Speed** can matter
 - <http://googlewebmastercentral.blogspot.co.uk/2010/04/using-site-speed-in-web-search-ranking.html>



Obey the rules and consider the tips

Guidelines

- Google
 - <https://support.google.com/webmasters/answer/35769?hl=de>
- Yahoo
 - <https://help.yahoo.com/kb/search/search-content-quality-guidelines-sln2245.html>
- Bing
 - <http://www.bing.com/webmaster/help/webmaster-guidelines-30fba23a>

Tips

- Google – SEO Starter Guide
 - <http://googlewebmastercentral.blogspot.ch/2010/09/seo-starter-guide-updated.html>
- moz.com – Beginners Guide to SEO
 - <http://moz.com/beginners-guide-to-seo>



What MORE can I do?

- The other market leaders
 - Baidu (China),
 - Yandex (Russia),
 - Naver (South Korea)
- Seek relationships with trusted web sites and share information by exchanging links
- Use social media and video platforms
- Have a fast and user friendly website for all devices



Keywords in URLs for search rank?

- **No evidence that keywords in the URL path really improve ranking**
 - Google itself doesn't give any indication
 - Moz.com search rank factor survey puts "partial url matching" on 97 from 108 search rank factors
<https://moz.com/search-ranking-factors>
- **In general keywords should always match content delivered on a page**



Please click me ... the other Relevance

The screenshot shows a Google search interface with the query "search engine optimization". The search results are as follows:

- Search engine optimization - Wikipedia, the free encyclopedia**

en.wikipedia.org/wiki/Search_engine_optimization

Search engine optimization (SEO) is the process of affecting the visibility of a website or a web page in a search engine's "natural" or un-paid ("organic") search ...

SEO (disambiguation) - Search engine marketing - Backlink - Website promotion

Annotation: A red arrow points to this result with the text "Click me!"
- Suchmaschinenoptimierung – Wikipedia**

de.wikipedia.org/wiki/Suchmaschinenoptimierung

In der Regel geht einer Optimierung aus **SEO**-Sicht immer eine OnPage-Optimierung voraus. Der eigentlich für Suchmaschinen konzipierte Meta-Tag Keyword ...
- [PDF] Search Engine Optimization Starter Guide - Google**

www.google.de/webmasters/.../search-engine-optimization-starter-guide....

the topic of **search engine optimization** and wish to improve their sites' interaction with both users and search engines. Although this guide won't tell you any ...
- Search Engine Optimization (SEO) - Webmaster Tools Help**

support.google.com/webmasters/bin/answer.py?hl=en&answer...

Mar 20, 2013 – Check out our **Search Engine Optimization** Starter Guide!If you're in a hurry, here's the one-page version. **SEO** is an acronym for "search ...

Annotation: A red arrow points to this result with the text "Click me please!"
- News for search engine optimization**

SEO Gorilla Placement Named Second Best Ecommerce **SEO** Company by topseos.com for May 2013

San Francisco Chronicle - 15 hours ago

The independent authority on Search vendors, topseos.com, has named Gorilla Placement the best ecommerce **SEO** company for May 2013.

Annotation: A red arrow points to this result with a checkered flag emoji.
- What Is SEO / Search Engine Optimization? - Search Engine Land**

searchengineland.com/guide/what-is-seo

SEO stands for "search engine optimization." It is the process of getting traffic from the "free," "organic," "editorial" or "natural" listings on search e.

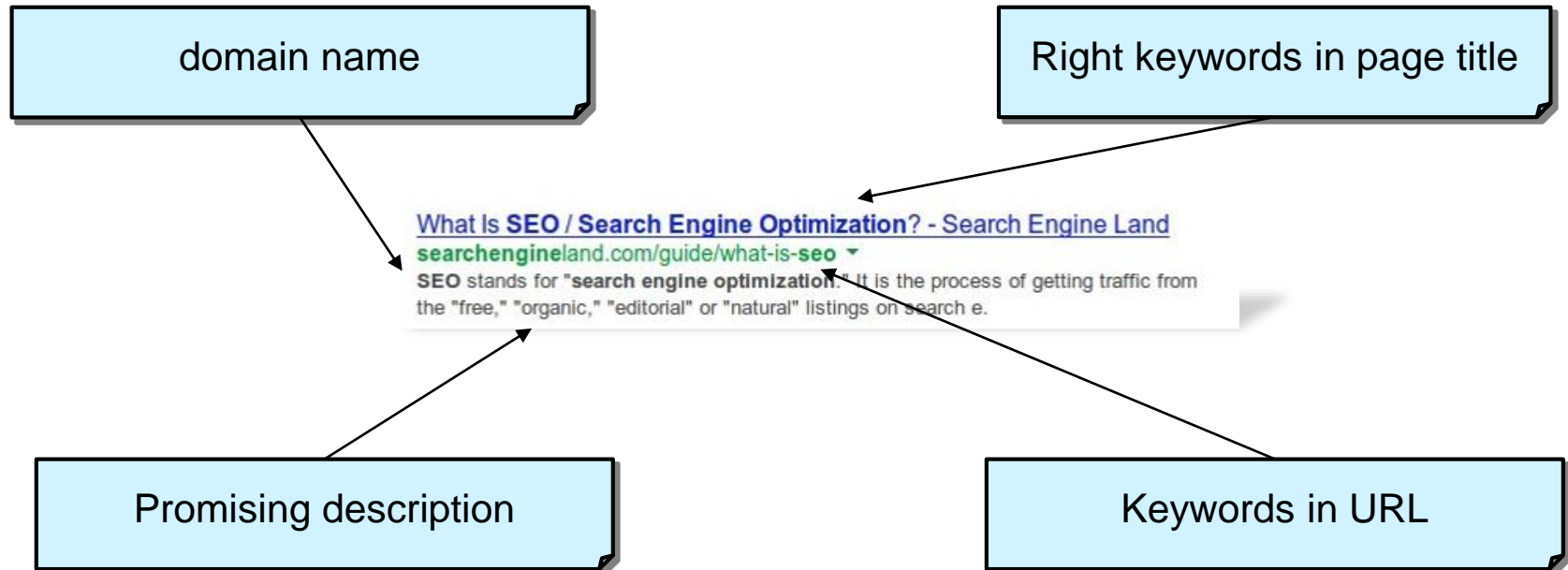
Click me!

Click me please!



Improve Search Result Click Rate

- Search result entry is your business card
- Optimize the number of clicks you get per impression of your site in search result



Friendly URLs for SEO

- **It's still a good idea to use friendly URLs with keywords that match page content**
 - Keywords that match query are highlighted in search result
 - To improve users confidence that page actually contains what users look for
 - URLs can be remembered easily
 - Serves as link text for URLs copied and pasted without setting an anchor text
- **What about the length of a URL?**
 - Crawler/Indexer can follow long URLs without trouble
 - Put important keywords in first 60-70 characters

[IBM - Exceptional Digital Experience \(formerly Exceptional ...
www.ibm.com/software/collaboration/digitalexperience/](#) ▼

IBM Exceptional Digital Experience (formerly Exceptional Web Experience) solutions, including IBM Customer Experience Suite and IBM Employee Suite, en.
[IBM Digital Experience Solutions](#) - [IBM Digital Experience - Downloads](#) - [What's New](#)

[IBM Digital experience](#)

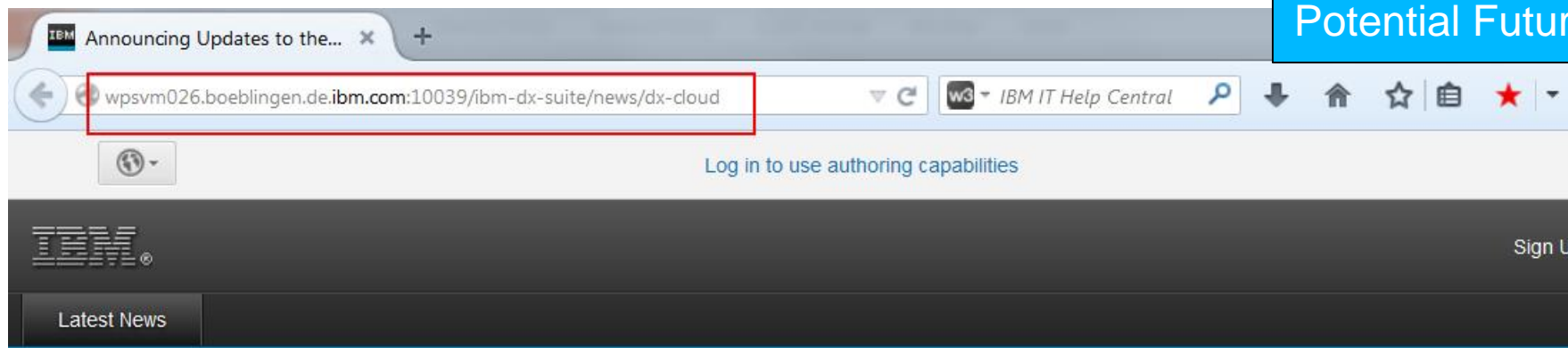
[www.ibm.com/software/products/en/category/digital-experience](#) ▼

Watch this video for a comprehensive overview of how an exceptional digital experience can benefit users across your internal organization, including your ...



Stateless friendly URLs – Yes we can!

Potential Future



Truly friendly URLs for content driven pages

- **Assign friendly names on all pages along the path**
- **Make sure your theme contains the <base> tag in head of the page**
 - <https://ibm.biz/BdXmXV>
- **Change your theme to generate friendly URLs without state info**
 - <https://ibm.biz/BdXmXW>
- **Use web content pages with WCM associations**
 - <https://ibm.biz/BdXmHF>
- **Use friendly URL generation plugin for Web Content Viewer Portlet**
 - <https://ibm.biz/BdXmHi>



... and the easy way?

Shorten Site URLs for Search Engine Optimization

Potential Future

1 Answer Questions
In progress

2 Customize Values

3 Configure

Answer questions about your environment so that the wizard can determine which fields you must complete. Then, you can run the configuration, save your settings, or download the instruction and script files to run later. If you saved your settings from a previous session, you can upload the settings now. [Learn More](#)

[Upload Saved Selections](#)

System Information

URL Settings

Do you want your portal URL to contain navigational state information:

- Yes
- No

?

Do you want to modify your context root:

- Yes
- No

?

Connect to the portal server to validate settings:

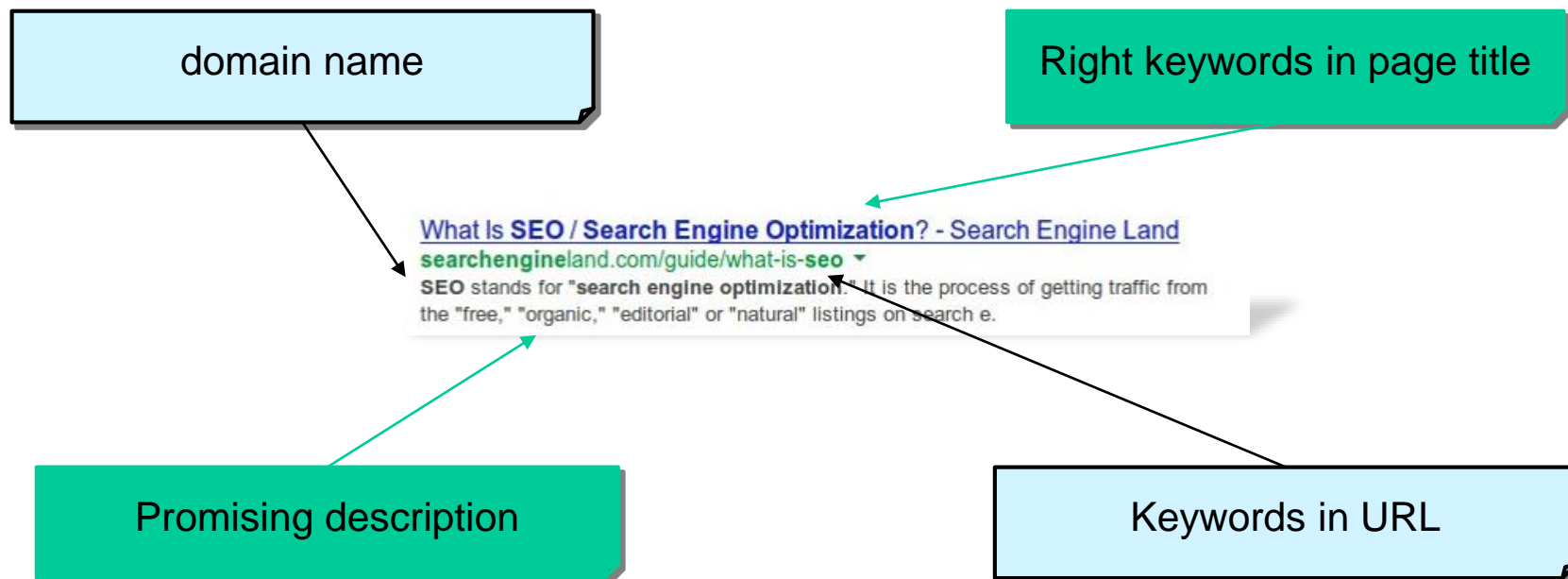
- Yes
- No

?



Improve Search Result Click Rate

- Search result entry is your business card
- Optimize the number of clicks you get per impression of your site in search result



Meta Data and other Page Header Tags

- *Title* tag is important because it's used by search engine to deliver first impression a user gets of a web page in the search result list
- *Description* meta tag might be valuable as google sometimes uses it in favor of the summary generated from page content
- **Note:** these and any other descriptive meta tags are irrelevant in any way (except maybe 'title') for determining that web page's rank score
- *Robots* meta tag can be used to block indexing of irrelevant pages
 - `<meta name="robots" content="noindex">`
- Use link rel="canonical" tag to set preferred URL for page to avoid score distribution
 - Required for links from other sites as in this case URL normalization feature mentioned isn't sufficient



Deliver Page Header Tags with Portal

- **Drive header info using Portal**

- Title tag written by default using page title
- Add description meta tag using page description
`<meta name="description" content="<c:out value='${wp.localizedDescription}'/>"/>`

- **Add header tags driven by WCM content**

- Set the title and meta information dynamically based on web content rendered on page

<https://ibm.biz/BdXmnW>

- **Set canonical URL for page**

- Add link tag to your theme
`<link rel="canonical" href="<c:out value='${wp.selectionModel.selected.urlGeneration.keepNavigationalState.forceAbsolute.normalize}'/>" />`
- Parameters in URL can be controlled via XSLT

<https://ibm.biz/BdXmnM>



Mobile is not an option

- Google prefers mobile websites if the user device is mobile
 - <http://googlewebmastercentral.blogspot.co.uk/2015/04/rolling-out-mobile-friendly-update.html>
- Mobile devices refers to **smartphones** not tablets
 - typically running Android, iOS or Windows Phone
- Test your website
 - <https://www.google.com/webmasters/tools/mobile-friendly/>



Mobile-Friendly Test 8+1

<http://ctcrocks.ibmcollabcloud.com/wps/portal/>

Awesome! This page is mobile-friendly.

How Googlebot sees this page



How to tell search engines you are mobile

- **Responsive Web Design**

Same URL, same HTML source and CSS. Your page will adapt to all devices.

- Add to the head section of your web page

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

- **Dynamic serving**

Same URL, different HTML source and CSS. Server responds to user agent

- Tell Google about it using the 'Vary HTTP header'

```
HTTP/1.1 200 OK
Content-Type: text/html
Vary: User-Agent
Content-Length: 5710
```

- **Mobile specific URLs**










For instance: **m.example.com**

- When redirecting, present the same content to Googlebot as to the mobile user
- Make crawlers aware:
 - On the desktop page, add a special link rel="alternate" tag pointing to the corresponding mobile URL
 - On the mobile page, add a link rel="canonical" tag pointing to the corresponding desktop URL



What mobile configuration to select?

Responsive web design is Google's recommended design pattern

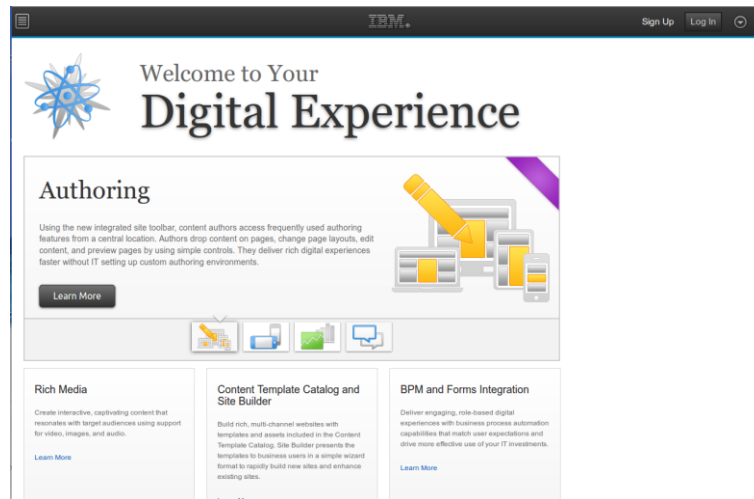
Configuration	Does my URL stay the same?	Does my HTML stay the same?	Supported by WebSphere Portal?
Responsive Web Design			
Dynamic Serving			
Separate URLs			

*) Not supported out of the box, but technically feasible using Portal and WCM

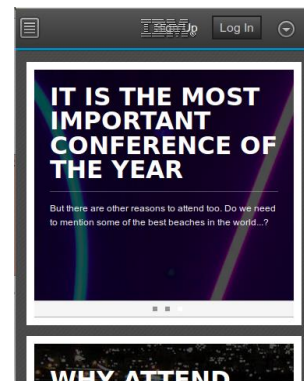
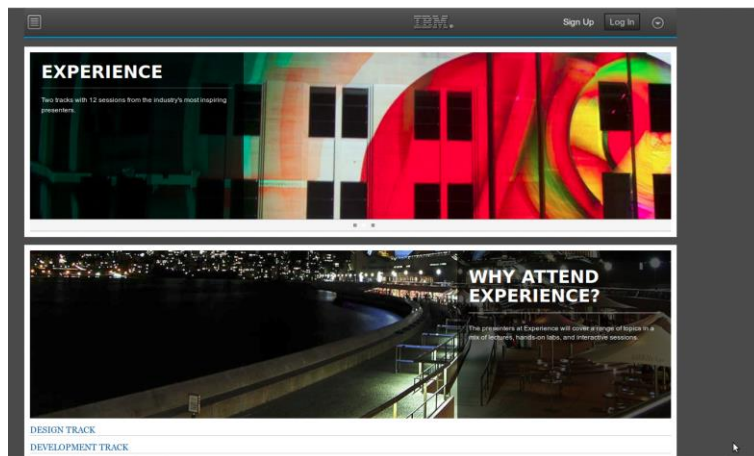


WebSphere Portal V8+ w. default theme & CTC

Desktop



Mobile



Thank you!

Questions and Answers

