Fact Check: Search Engines Market Share
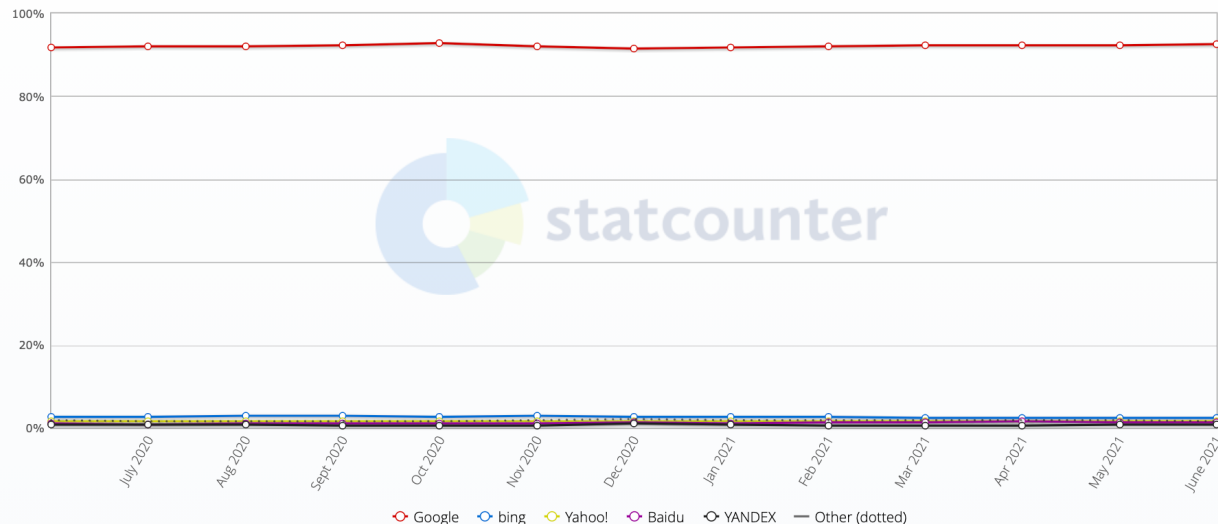
- Google processes over **40,000** search queries every second on average, which translates to over **3.5 billion** searches per day and **1.2 trillion** searches per year worldwide.

Source: www.internetlivestats.com/google-search-statistics/ retrieved August 2020

Fact Check

- 71.33% of searches resulted in a page 1 Google *search results* click.

- Page two and three only get 5.59% of clicks.

- On the first page alone, the first five results account for 67.60% of all the clicks and the results from 6 to 10 account for only 3.73%.

Source: http://www.zerolimitweb.com/organic-vs-ppc-2018-ctr-results-best-practices/ retrieved 2 October 2018

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Organic results

- Listings on a search engine results page (SERP) that appear because of factors such as relevance to the search term and valid search engine optimization (SEO) efforts rather than because of search engine marketing (SEM) or trickery.

Paid

Organic

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Understanding Search Engines

- A service that allows Internet users to **search** for content via the World Wide Web (WWW).

- A user enters keywords or key phrases into a **search engine** and receives a list of Web content results in the form of websites, images, videos or other online data.

Understanding Search Engines

- Three main components:
  - "Spider" or "Crawler" : automated robots/bots
  - Index: organized information from webpages and other publicly available content
  - Search Engine Software : Search Algorithms

Main functions:
1. Crawling

- World Wide Web is a network of unique documents (usually a web page, but sometimes a PDF, JPG, or other file)
- The link structure of the web binds all of the pages together.

Links allow the "crawlers" or "spiders," to reach the many billions of interconnected documents on the web.

Main functions:
2. Indexing

- When crawlers find a webpage, search engine software systems extract the content of the page, keep track of its keywords and other features in the Search index.

- The Google Search index contains hundreds of billions of webpages and is well over 100,000,000 gigabytes in size.

- It's like the index in the back of a book — with an entry for every word seen on every web page indexed.

- When a web page is indexed, it is added to the entries for all of the words it contains.

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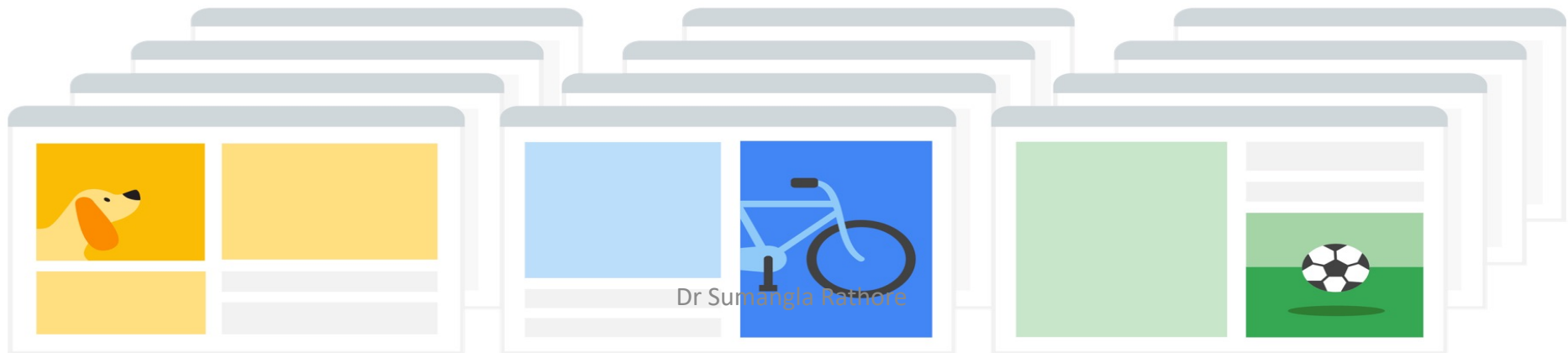
Main functions:
3. Search Algorithms

- ## Analysing keywords:

Interpreting spelling mistakes, natural language understanding.

- ## Matching the search

Whether the pages include relevant content and is in the same language

- ## Ranking useful pages

Google PageRank: freshness of the content, number of times your search terms appear, good user experience, how many users seem to value for similar queries, inward links from other websites

- ## Considering context

location, past search history and Search settings

- ## Returning the best results

a diverse set of information in formats that are most helpful for your type of search.

We get list of sites after typing a word in search bar called _____

- Key Phrase

- Word Entry

The search results are generally presented in a line of results often referred to as _____

A Tag List
B Search Engine Pages
C Category List
D Search Engine Results Pages

- Search Engines are able to search _____ type of information.
- Videos
- Documents
- Images
- All of these

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Search Engines maintain heavy database of keywords and urls known as _____

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Web Crawler is also called as _____.

- Search optimizer
- Link directory
- Web spider
- Web manager

Google's Commonly used Search Algorithms

1. PageRank

Launch date: 1998

How it works: works by counting the number and quality of links to a page to determine a rough estimate of how important the website is.

The underlying assumption is that more important websites are likely to receive more links from other websites.

Google's Commonly used Search Algorithms

2. **Panda**

Launch date: February 24, 2011
How it works: Panda assigns a so-called "quality score" to web pages which is then used as a ranking factor.

Initially, Panda was a filter rather than part of Google's ranking algorithm, but in January 2016, it was officially incorporated into the core algorithm.

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Google's Commonly used Search Algorithms

3. Penguin

Launch date: April 24, 2012
How it works: Google Penguin's objective is to down-rank sites whose links it deems manipulative.

Since late 2016, Penguin has been part of Google's core algorithm.

Google's Commonly used Search Algorithms

4. Hummingbird

Launch date: August 22, 2013

How it works: Hummingbird helps Google better interpret search queries and provide results that match searcher *intent* (as opposed to the individual terms within the query).

While keywords continue to be important, Hummingbird makes it possible for a page to rank for a query even if it doesn't contain the exact words the searcher entered.

This is achieved with the help of natural language processing that relies on latent **semantic indexing**, co-occurring terms and synonyms.

Replace

How to **change** a light bulb

Exchange

Does post office **change** foreign currency

Adjust

How to **change** brightness on a laptop

Google Search Timeline

Google

Did you mean?

Synonyms

Autocomplete

Universal Search

Google Instant

Knowledge Graph

Books

Sports Scores

Patents

Search Tools

Intelligence Features

Products

Flights

Google Search App

Voice Search on Desktop

Google Now

Stock Quotes

Movie Times

News

Weather

Voice Search

Search by Image

Registered google.com

Video

Images

Adwords

Local

97   98   99   00   01   02   03   04   05   06   07   08   09   10   11   12   13

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Google's Commonly used Search Algorithms

5. Pigeon

Launch date: July 24, 2014 (US); December 22, 2014 (UK, Canada, Australia)
How it works: Pigeon affects those searches in which the user's location plays an important part.

Google's Commonly used Search Algorithms

6. Mobile

Launch date: April 21, 2015

How it works: Google's Mobile Update (aka Mobilegeddon) ensures that mobile-friendly pages rank at the top of mobile search, while pages not optimized for mobile are filtered out from the SERPs.

Google's Commonly used Search Algorithms

7. RankBrain

Launch date: October 26, 2015
How it works: RankBrain is part of Google's Hummingbird algorithm.

It is a machine learning system that helps Google understand the meaning behind queries, and serve best-matching search results in response to those queries.

Google calls RankBrain the third most important ranking factor.

It distinguishes the context of new searches by pulling semantically similar keywords/phrases and comparing them with similar past searches to deliver the most relevant results.

It finds patterns and makes sense of relevant data when it analyzes user engagement with web pages in its SERP listings.

Google employs machine learning technology to Voice based Long-Tail search queries.

Google's Commonly used Search Algorithms

8. Possum

Launch date: September 1, 2016
How it works: Ensures that local results vary more depending on the searcher's location: the closer you are to a business's address, the more likely you are to see it among local results.

Google's Commonly used Search Algorithms

9. Fred

Launch date: March 8, 2017
How it works: Fred targets websites that violate Google's webmaster guidelines.

The majority of affected sites are blogs with low-quality posts that appear to be created mostly for the purpose of generating ad revenue.

GOOGLE'S FOCUS ON THE USER EXPERIENCE
UPDATES, ALGORITHMS AND RANKING SYSTEMS

Penguin Update
Venice Update
Page Layout
Schema.org

E-A-T

Concept in Search Quality Guidelines to ensure websites offer users expert and authoritative content that can be trusted

MOBILE FRIENDLY 2.0

Ensuring your web pages are mobile-friendly

Quality Update

MOBILE-FIRST INDEXING

Focusing on the user experience with quality content and avoiding too much irrelevant user-generated content and too many ads

PANDEMIC RESPONSE

Consumer behavior, content and misinformation

Core Quality Update

2011   **2013**   **2015**   **2017**   **2019**   **2021**

2012   **2014**   **2016**   **2018**   **2020**

PANDA

Producing and optimizing unique and compelling content

HUMMINGBIRD

Creating and optimizing content that audiences want

Pigeon Update

Page Layout Refresh

MOBILE UPDATE

Focusing on mobile content and users experience

QUALITY UPDATE

Focusing on the user experience with quality content and avoiding too much irrelevant user-generated content and too many ads

RANKBRAIN

Ensuring content reflects user intent and optimizing for conversational search

FRED
Snippet Length
Quality Updates
User Localization

BROAD CORE UPDATE

Focusing on mobile content and users experience

Mobile Speed
Desktop Carousels

BERT

Improving the understanding of consumer intent through conversational type search themes

Rich Snippet Review

PAGE EXPERIENCE UPDATE AND CORE WEB VITALS (CWV)

Integrating new Core Web Vitals metrics to measure and improve on-page experiences

BRIGHTEDGE

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What is SEO?

The process of affecting the visibility of a website or a web page in a search engine's organic results.

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"Build for users, not for search engines."

There are three types of search queries people generally make:

- **"Do"** Transactional Queries: I want to do something, such as buy a plane ticket or listen to a song.
- **"Know"** Informational Queries: I need information, such as the name of a band or the best restaurant in New York City.
- **"Go"** Navigation Queries: I want to go to a particular place on the Internet, such as Facebook or the homepage of the NFL.

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White Hat vs. Black Hat

- **Black Hat SEO:** focuses on optimizing the website content only for the search engine, not considering humans at all. Result into spammy, irrelevant pages that often get banned very fast.

- **White Hat SEO:** the way to build a sustainable online business while focusing on the human audience as per the search engine's rules.

BLACK HAT

BLACK HAT STRATEGIES

- Duplicate content
- Invisible text and stuffed keywords
- Cloaking or re-directing the user to another site or page
- Links from sites with non-relevant content

WHITE HAT

WHITE HAT STRATEGIES

- Relevant content
- Well-labeled images
- Relevant links and references
- Complete sentences with good spelling and grammar
- Standards-compliant HTML
- Unique and relevant page titles

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Activity

Type atleast 3 search queries on Google using different keyword combinations (e.g. review, directions, best/top, buy).

Analyse the results to observe the following:

- Organisation of search results (main sections)
- Visit the top five results and understand the type of websites shown there

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Search Engine Success Factors

On-Page SEO

- Those that are almost entirely within the publisher's own control. For Example,
  - Content
  - HTML clues
  - Site architecture

Off-Page SEO

- Those that publishers do not directly control.
- Relying on publisher-controlled signals alone don't always yield the best results. For instance, some publishers may try to make themselves seem more relevant than they are in reality.

Violations

- Techniques that search engines deem "spam" or "black hat," which could result in your pages receiving a ranking penalty, or worse, being banned from the search engines entirely.

On-Page SEO

"Content is the king"

General Guidelines to follow:

- **Content research/keyword research:** using right keywords, the actual search terms people are using, so you can produce content that effectively "answers" that query.

- **Content Quality:** offering **real** value, something of substance to visitors that is unique, different and useful

- **Keyword use:** use them naturally on the page.

- **Content freshness:** take advantage of freshness boost by producing relevant content that matches the real-time pulse of their industry.

- **Vertical search:** Images, news, local content

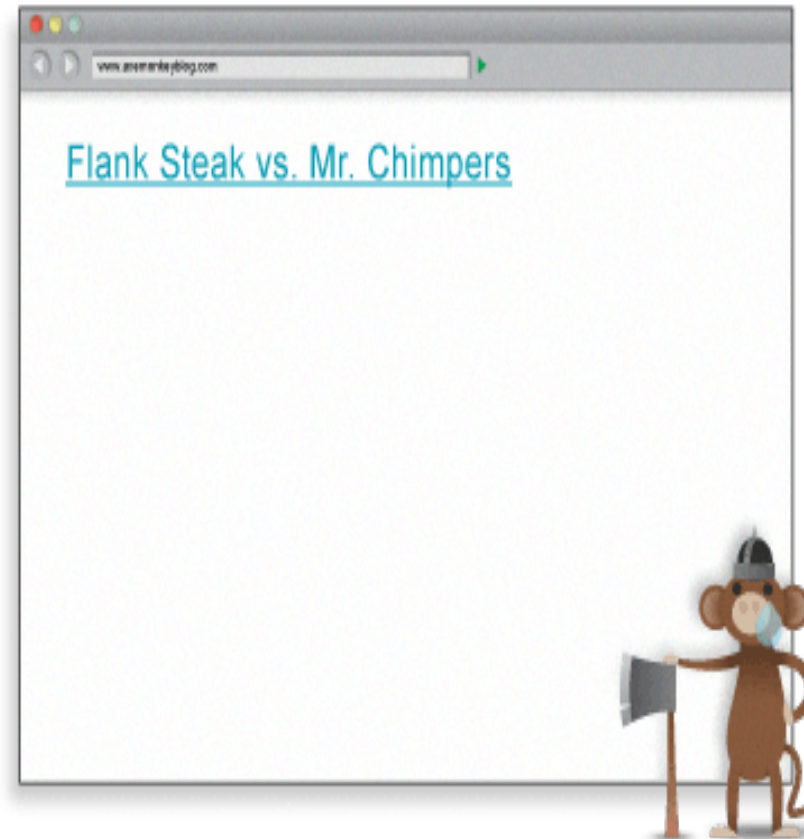https://moz.com/products/pro

On-Page SEO

Technical Aspects:

1. INDEXABLE CONTENT

- Most important content should be in HTML text format.

- Images, Flash files, Java applets, and other non-text content are often ignored or devalued by search engine crawlers.
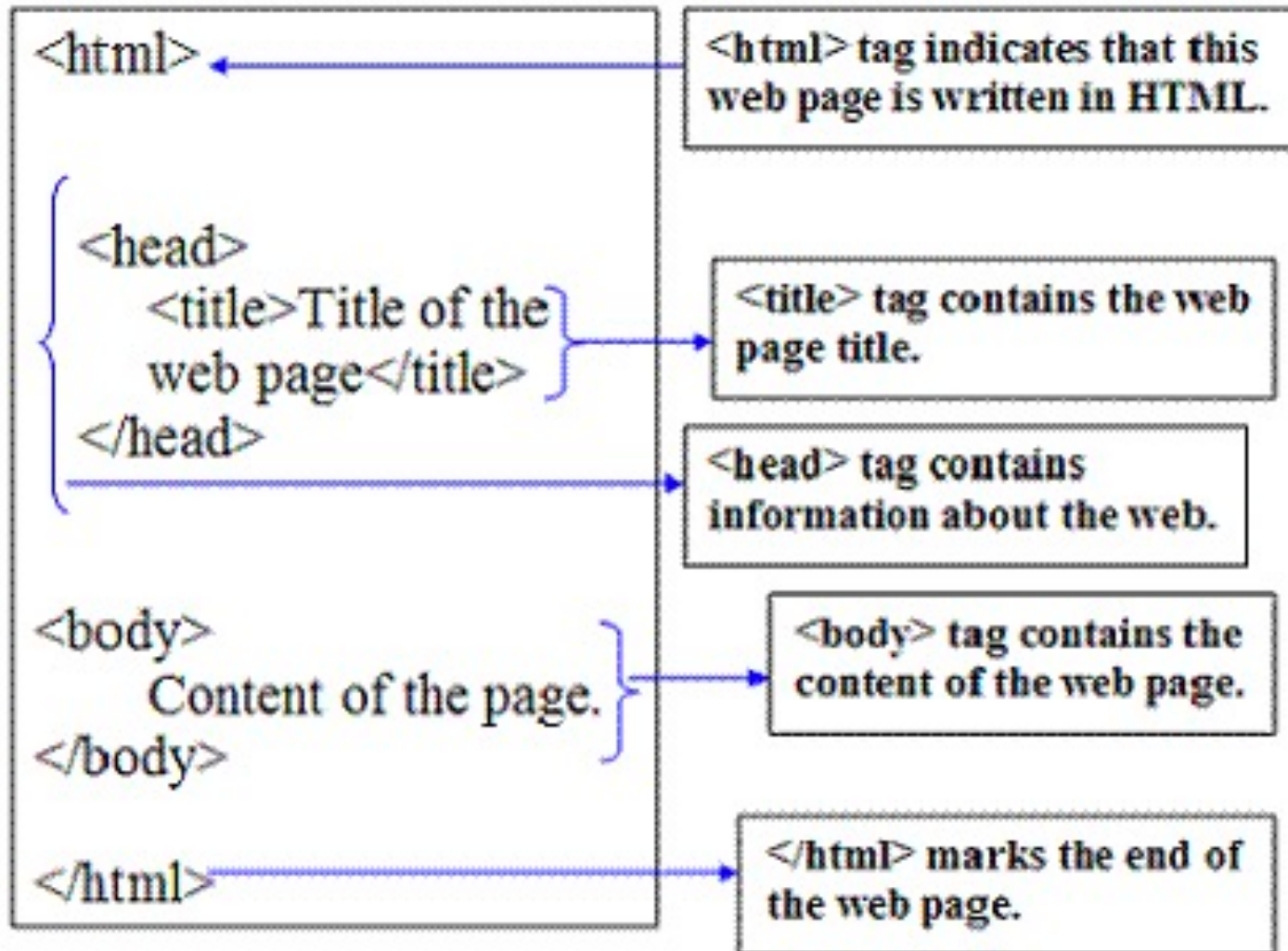
See your site as the search engines do

What Humans See

What Search Engines See

this means that search engines cannot index any of the text content for this website

```
<html>                          <html> tag indicates that this
                                web page is written in HTML.

    <head>
        <title>Title of the     <title> tag contains the web
        web page</title>        page title.
    </head>
                                <head> tag contains
                                information about the web.

    <body>                      <body> tag contains the
        Content of the page.    content of the web page.
    </body>


</html>                         </html> marks the end of
                                the web page.
```
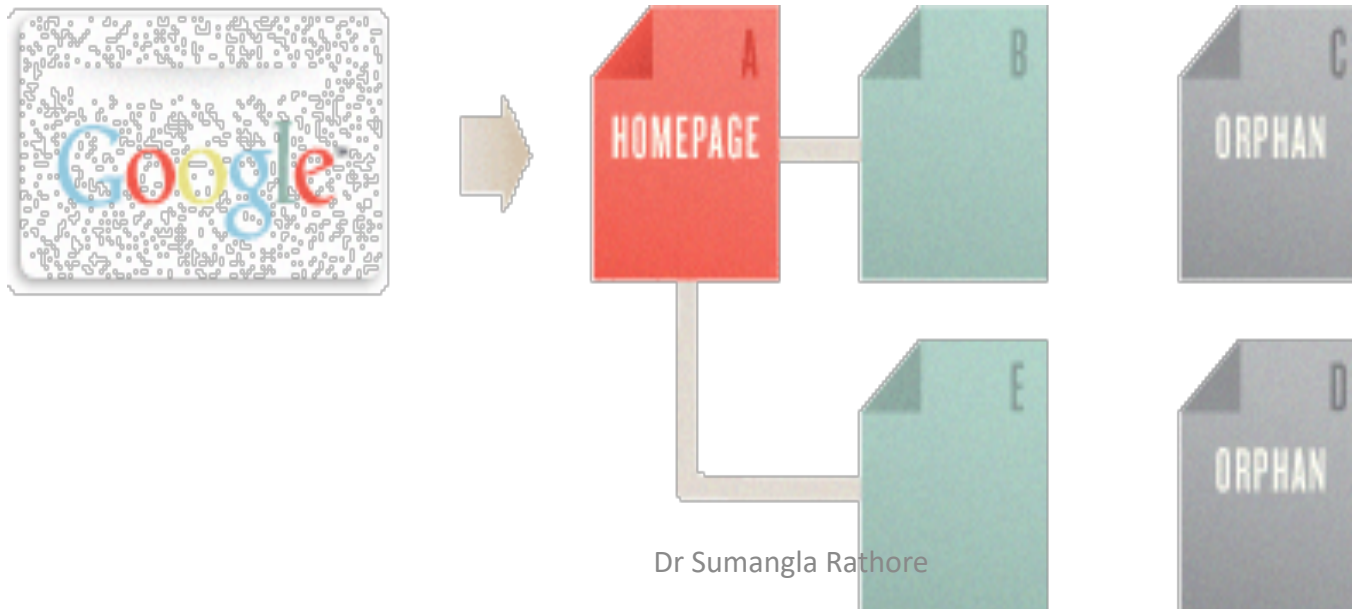
On-Page SEO
Technical Aspects:

2. CRAWLABLE LINK STRUCTURES

- One that lets the crawlers browse the pathways of a website.
- It is vital to them finding all of the pages on a website.

On-Page SEO
Technical Aspects:

3. KEYWORD USAGE AND TARGETING

a. *Use of the keyword phrase in Title Tag*

- A title tag is an HTML element that specifies the title of a web page.

- Title tags are displayed on search engine results pages (SERPs) as the clickable headline for a given result.

- The title tag of a web page is meant to be an accurate and concise description of a page's content.

- Optimal format:

    Primary Keyword - Secondary Keyword | Brand Name

On-Page SEO
Technical Aspects:

3. KEYWORD USAGE AND TARGETING

a. *Use of the keyword phrase in Title Tag*

- Be mindful of length

- Place important keywords close to the front

- Include branding

- Consider readability and emotional impact

On-Page SEO
Technical Aspects:

3. KEYWORD USAGE AND TARGETING

b. Use of the keyword phrase in other places

a. Once prominently near the **top of the page**.

b. At least two or three times, including variations, in the **body text** on the page.

c. At least once in the **alt attribute of an image** on the page. This not only helps with web search, but also image search, which can occasionally bring valuable traffic.

d. Once in the **URL.**

e. At least once in the **meta description** tag - the snippet of text used by the search engines.

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On-Page SEO
Technical Aspects:

4. OTHER WEBSITE ATTRIBUTES

a. Mobile Friendliness

b. Site Speed

c. Descriptive URLs

d. HTTPs/Secure site

Off-Page SEO

1. LINK BUILDING

Links were the first major "Off-the-page" ranking factor used by search engines and still remain most important external signal.

a. Link Quality ("Link Neighborhood")

  – Understanding co-citations and good neighborhood

b. Link text/anchor text

c. Number of links

Off-Page SEO

1. LINK BUILDING

Types of Links

a. Natural Editorial Links

Links that are given naturally by sites and pages that want to link to your content or company.

b. Manual Outreach links

Creating links by emailing bloggers for links, submitting sites to directories, or paying for listings of any kind.

c. Self-created non-editorial links

Hundreds of thousands of websites offer any visitor the opportunity to create links through guest book signings, forum signatures, blog comments, or user profiles.

Off-Page SEO

1. LINK BUILDING

Common Link Building Strategies

a. Get your partners and customers to link to you

b. Build a company blog; make it a valuable, informative, and entertaining resource

c. Create content that inspires viral sharing and natural linking

d. Be newsworthy

Off-Page SEO

2. ENGAGEMENT

a. How long do users stay on your page?

b. Did they search, click through to your listing, but then immediately "bounce" back to the results to try something else?

c. "Time on site" metric or "long click": are people sending a relatively long time reviewing your content, in relation to similar content on other sites?

d. Social gestures such as comments, shares and "likes"

Off-Page SEO

3. HISTORY

a. How your website has behaved over time.

b. Any history of violations or penalties

c. A good overall track record plays an important role

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Off-Page SEO
4. PERSONALISATION

a. Country

b. Locality

c. Personal history

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Off-Page SEO

5. SOCIAL MEDIA

a. Indirect effect: Content that gets socially shared can affect links or gain engagement, which are direct ranking factors.

    a. Social reputation

    b. Social Shares

Exercise

- Search for keyword "buy antique furniture"
- Find a business among the top results
- Search for this business by directly using the brand name
- Identify the external links and other off-page SEO methods discussed today which have been applied to this website

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Violation

a. Thin or Shallow Content:

Google's Panda targets what is described as "thin" or "shallow" content or content that is lacking in substance.

b. Cloaking:

Rigging your site so that search engines are shown a completely different version from the one humans see

c. Keyword Abuse:

"stuffing" keywords into text, URLs, meta tags, and links

d. Piracy

e. Too many Ads

f. Keyword Cannibalization

Targeting of the same keyword, term or phrase on multiple pages of your website

g. Duplicate content

h. Canonicalization

When two or more duplicate versions of a webpage appear on different URLs.

i. Buying Links

Search Engine Tools

- Google Search Console
- Bing Webmaster Tools

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Measuring and Tracking performance

- [Google Analytics](#)
- Foxmetrics
- Matomo
- Chartbeat
- Zap
- Open Web Analytics
- Adobe Analytics
- Clicky
- ....

Source: https://www.computerworlduk.com/galleries/data/best-web-analytics-tools-alternatives-google-analytics-3628473/

Assignment

Think of any business or your favourite brand

- Think about the keywords customers will use to search for the service or product the business offers. Use tools like [Google's Keyword Planner](#) and [Answer the Public](#).

- Go to the business's website home page. Are the most important keywords used naturally in the content?

Assignment

Start reviewing the SEO performance for that business by completing the following tasks:

- Take the web address (URL) for the business, add 'site:' at the front (e.g. site:www.yourwebsite.com), then search for it in a search engine search. This will show you all the pages that search engine has indexed for that site. Note the top five pages listed in the search results.

- Review each of the top five page against SEO best practice guidelines for:
  - Page title (e.g. is the title longer than 55 characters? Are the characters legible?)
  - Keywords (e.g. are the keywords on the title relevant?)
  - Content (e.g. is there enough content on each page?)

- Based on your review, suggest improvements for these pages according to SEO best practice guidelines. For example: is there enough relevant content on each page? Does it contain relevant keywords without being spammy? What keywords is the content focused on?

- Also check the off-page SEO for this website by looking at the top backlinks using any free backlink checker tool

References

- www.moz.com

- www.searchengineland.com

- https://www.google.com/search/howsearchworks/

- www.internetlivestats.com