

Unit-II: Search Engine Optimization (SEO)

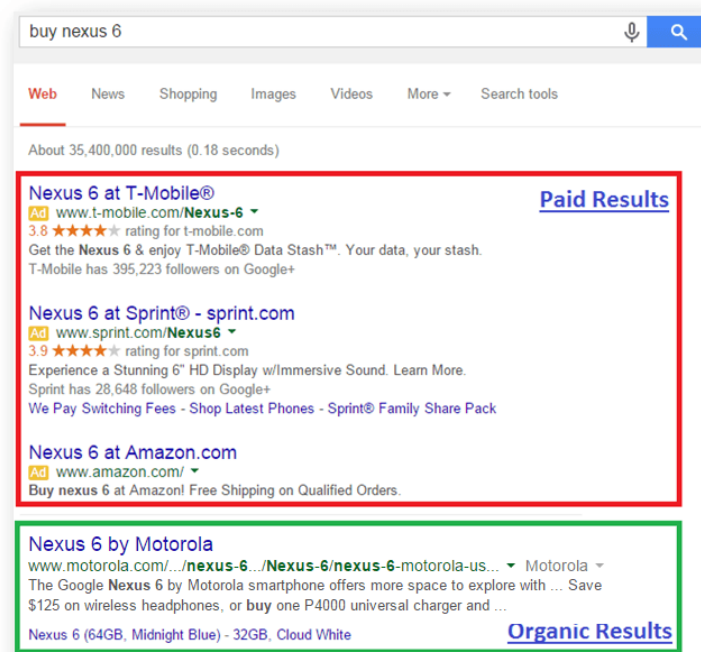
Introduction, writing the SEO content – title, meta tags, image tags, html tags, content writing essentials, Google adwords, Google adsense, Google webmaster tools, on and off page optimization, web crawlers, keyword strategy; SEO friendly website design, hosting & integration.

2.1 Introduction

What is SEO

Search engine optimization (SEO) refers to techniques that help your website rank higher in organic (or “natural”) search results, thus making your website more visible to people who are looking for your product or service via search engines.

SEO is part of the broader topic of Search Engine Marketing (SEM), a term used to describe all marketing strategies for search. SEM entails both **organic** and **paid search**. With **paid search**, you can pay to list your website on a search engine so that your website shows up when someone types in a specific keyword or phrase. Organic and paid listings both appear on the search engine, but they are displayed in different locations on the page.



So, why is it important for your business’ website to be listed on search engines? On Google alone, there are over 694,000 searches conducted every second. Think about that. Every second that your website is not indexed on Google, you are potentially missing out on hundreds, if not thousands of opportunities for someone to visit your website, read

your content, and potentially buy your product or service. Practicing SEO basics, as well as more advanced techniques after those, can drastically improve your web site's ability to rank in the search engines and get found by your potential customers.

How Search Engines Work

Search engines have one objective – to provide you with the most relevant results possible in relation to your search query. If the search engine is successful in providing you with information that meets your needs, then you are a happy searcher. And happy searchers are more likely to come back to the same search engine time and time again because they are getting the results they need.

In order for a search engine to be able to display results when a user types in a query, they need to have an archive of available information to choose from.

Every search engine has proprietary methods for gathering and prioritizing website content. Regardless of the specific tactics or methods used, this process is called **indexing**.

2.2 writing the SEO content

The Purpose of a Search Engine

1. Crawling and Indexing

Through links, search engines' automated robots, called "crawlers," or "spiders" can reach the many billions of interconnected documents. Once the engines find these pages, they decipher the code and store select pieces in massive hard drives, to be recalled later.

2. Retrieving Answers

When you perform a search, search engines scour the billions of stored documents and do two things – first, return those results that are the most relevant to your query, and second, rank those results in order of perceived importance.

Rule of SEO

When building or modifying your website – whether your adding images, restructuring your links, or changing your written content – always base your decisions on improving the user’s experience.

On Page SEO

Basic Practices

- Title Tag
- Meta Keywords
- Meta Description

Usability

- Image Alt Tag
- Files Names
- Media Description

Structure

- URL
- Subdomains
- Navigation

Content

- Anchor Text
- Heading Tags
- Keywords

Basic Practices

Title Tag:

The title tag is the clickable title of a webpage that appears with the result on the SERP (search engine page results page). To set a page title, use the <title> tag in the HTML around your text.

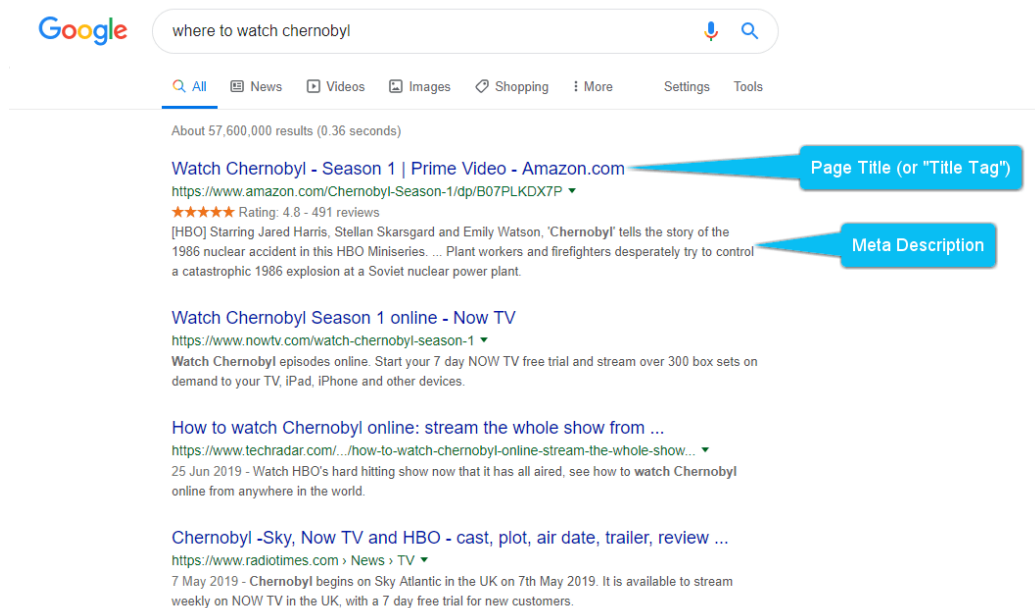
```
<head> <br/> <title>This is My Title</title><br/></head><br/><br/><br/>
```

Make sure the title tag on each page of the site is unique and descriptive. It should be no longer than 65 characters. If possible, place your keywords in the title tag.

Meta Description:

A [meta description](#) is a short snippet, a description tag in HTML, that summarizes a webpage's content. On a search engine results page (SERP), the meta description appears under the [page title](#) and URL

Search engines use the meta description tag to describe your web page. Make sure every page has a unique description. It should be no longer than 160 characters.



Usability

Usability is a reference to how easy it is for a user to accomplish what she wants on a website.

1. Image Alt Text:

A place where you can provide more information about what is in the image and where you can target keywords.

2. File Names:

Search engines look at the filename to see whether it provides clues to the content of the file.

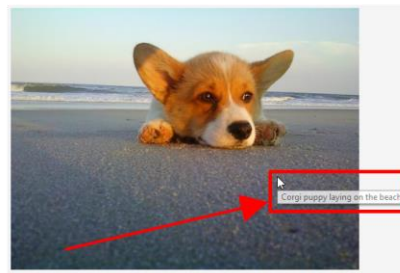
3. Media Description:

A description helps the user and search engines better understand the content contained in your video, animation, etc.

ALT TAG



TITLE TAG



Structure

1. URL's:

Keeping your URL's short and descriptive of your content will improve the user experience and lead to better crawling of your website by search engines. (Currently there is no way to change the URL in OpenText)

2. Subdomains:

A subdomain can look more authoritative to users and provide a reasonable choice to include keywords in the URL. Unfortunately, they have the potential to be treated separately from the primary domain when it comes to trust value.

3. Navigation:

Ordering your navigation in a logical and concise manner will assist the user (they will find the site easier to use) and search engines award greater ranking based on increased subject relevance.

URL examples

www.westga.edu/its/wireless-login.php

Good URL

www.westga.edu/its/v66613-thjukl.php

Bad URL

Subdomains

http://uwgonline.westga.edu

Good URL

http://university.web.learning.westga.edu

bad URL



Content:

1. Anchor Text:

The actual text placed in a link. If the text is keyword-rich, it will do more for your rankings in the search engines.

2. Heading Tags:

These tags are designed to indicate a headline hierarchy on the webpage. Search engines show a slight preference for keywords appearing in heading tags.

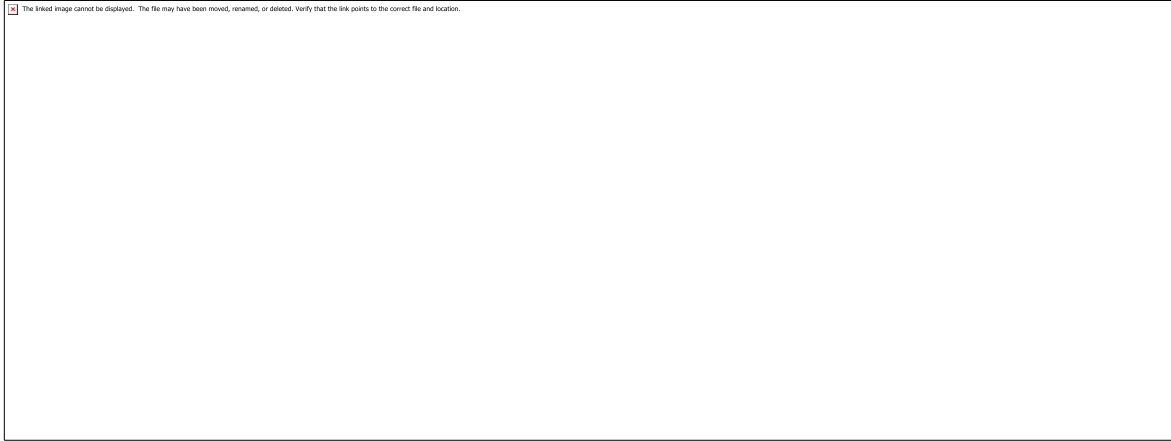
3. Content Keywords:

One of the most important on page SEO practices. When a user performs a query, the more relevant a keyword (or phrase) is to the query, the higher ranking the webpage will be in the search engine's results.

HTML tags

An HTML code is made up of elements, each one of which can either be a tag or a meta tag. If a tag or a meta tag has any additional characteristics, then it is an attribute.

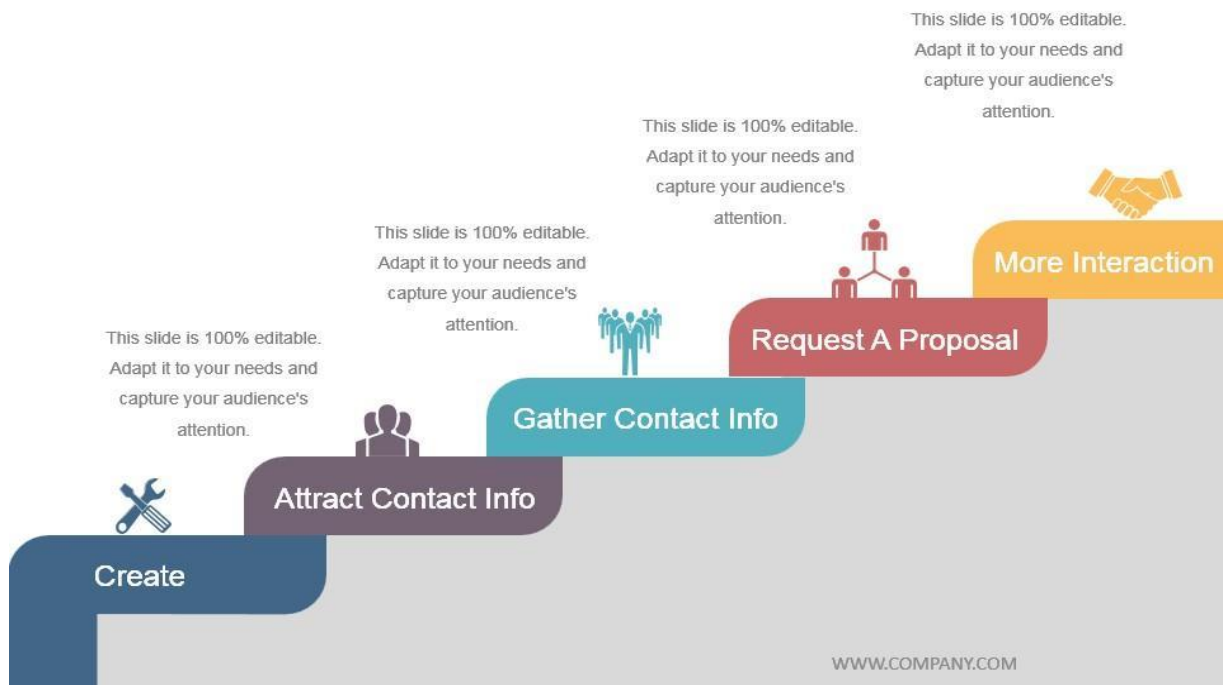
An HTML element is a type of HTML document component that is composed of a tree of simple HTML nodes like text nodes. Such elements allow the HTML document to include certain semantics and formatting. Here's what an HTML element consists of:



2.3 Content writing essentials

- Content writing is the process of planning, writing and editing web content, typically for digital marketing purposes.
- It can include writing blog posts and articles, scripts for videos and podcasts, as well as content for specific platforms, such as tweetstorms on Twitter or text posts on Reddit.
- Content takes many forms, but it only qualifies as content marketing if, according to the Content Marketing Institute, it aims to drive profitable customer action.
- Content writing has been a medium of communication ever since people learned to write and present. It was the major form of conveying any kind of information to the audience before even the internet.

Five Step Content Marketing Model PPT Images Gallery



Why Is Proper Content Writing Important?

However, writing content isn't just important for blog posts.

In fact, content writing is important for all types of different content formats, including:

- Video scripts
- Email newsletters
- Keynote speeches
- Social media posts
- Podcast titles
- White papers
- Web page copy
- Landing pages
- YouTube video descriptions

Where? (The Places to Publish Content)

- The marketing portion of content marketing is "everywhere." Distribute content through email newsletters and social media channels like LinkedIn, YouTube, Twitter and Facebook.
- It should be sent to journalists and influencers, and included in comments on other articles and discussion groups.
- Don't Forget! You must make it easy to share the content; including social sharing buttons on your content is a necessity.

Steps for writing the Content :

Creating an outline is a GREAT first step in the content writing process.

Outlines help your content come out better for two main reasons:

First, outlines force you to put all your thoughts down in an organized way (rather than writing everything off the top of your head). Which really speeds up the writing process.

Second, outlines usually lead to a much better structure for your content. That's because an outline lets you see your content from a "high level" that's impossible to see as you're writing.

Plus, because you have an outline, your final content will hit all of the major points that you set out to before you started writing.

Here are three main strategies that work well:

- Use a previous piece of content that did well: For example, we tend to publish quite a few definitive guides here at Backlinko.
- So when we start working on a new guide, we use a lot of the structure from our existing guides as a base.
- Use a template: Most professional content writers work off of proven templates. Here are 5 content templates you can use to create outlines.

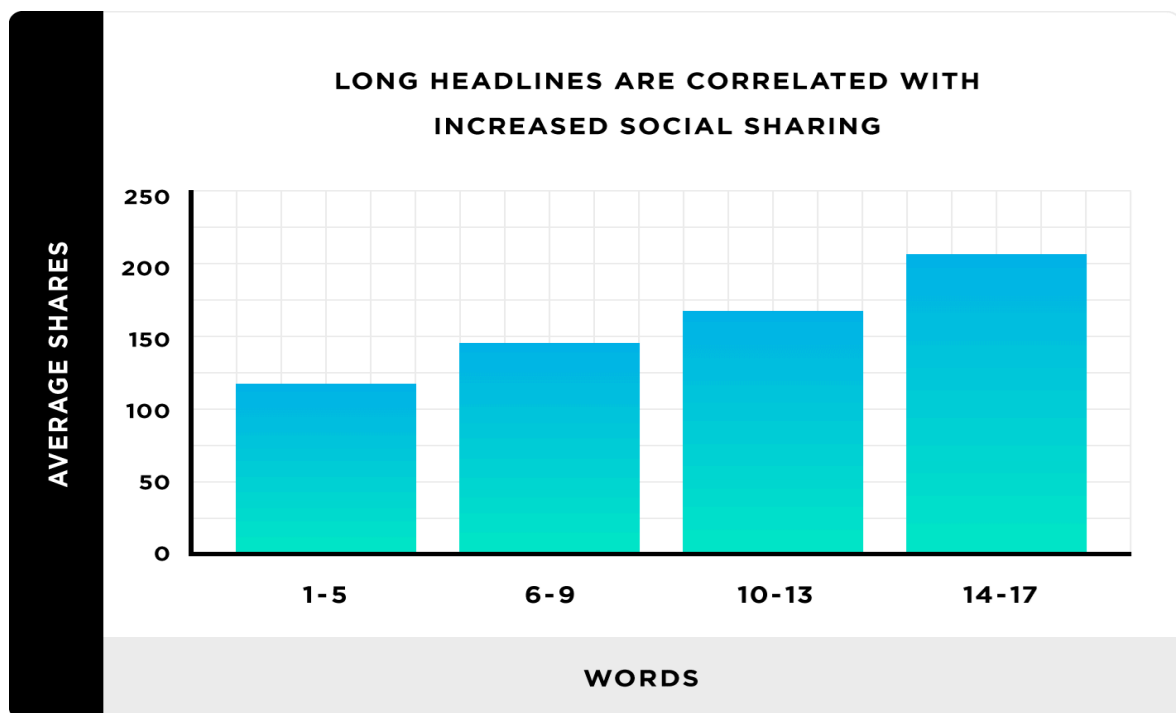
Use top-performing content: Check out BuzzSumo to find popular content that you can use as the basis for your outline.

For example, let's say you're about to write a guest post about the keto diet.

Make It Easy to Consume and Share

Content that's super easy to read and share is of the keys to great content.

You can have a post written by the world's top copywriter. But if that post is hard for people to consume, no one will read it.



Quotable On Social Media

According to a study that we conducted, very few blog posts get shared or linked to.

And to increase the odds that your content ranks in search engines and gets shared on social media, add shareable quotes.

For text-based content, this can be a statement that you highlight in your post.

Make It Actionable

For most niches, your content can't just be entertaining.

And it's not even enough for it to simply be informative.

For your content marketing to work, your content needs to be super **useful**.

Here's how:

Include a step-by-step process: Most content out there is just a list of things you compiled from other people's lists of things. When you organize a set of tips or techniques into steps, your content instantly becomes much easier to take action on. Our SEO audit post is a great example of this. It's not a collection of random tips. This content is a step-by-step action plan that anyone can follow.

Make it Trustworthy

For people to share and link to your content, they need to trust it first.

And while design factors in to how much people trust your content, your writing plays a big role too.

Here are a few tips to make your content more trustworthy.

Use proper grammar: If you want to improve your writing skills, a tool like Hemingway Editor or Grammarly can be a huge help.

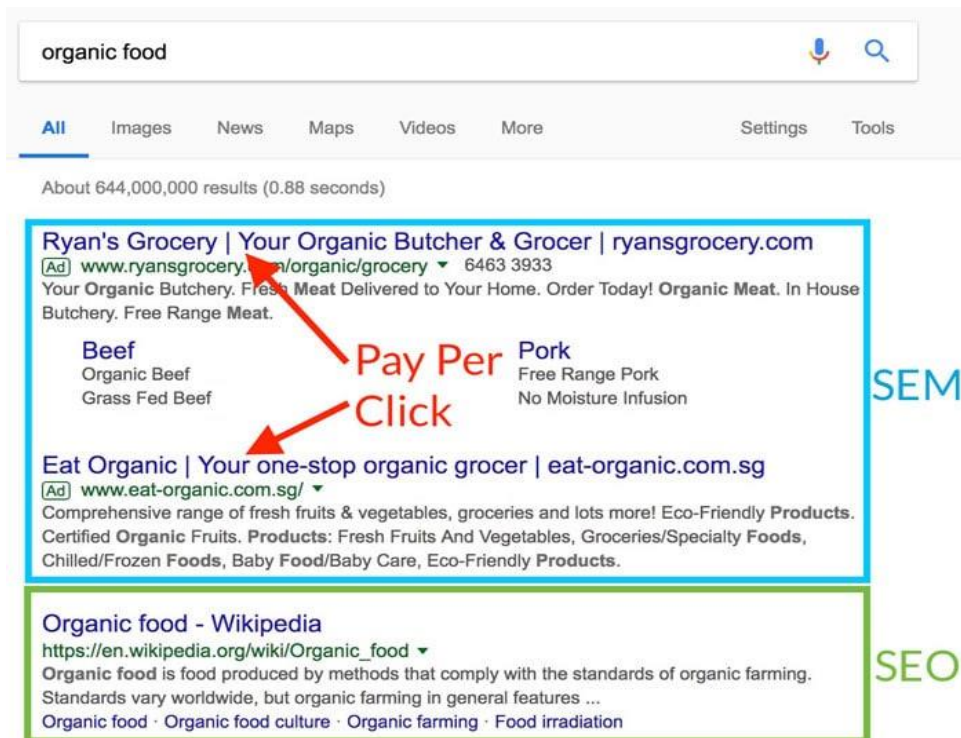
Do your homework: Research and references show that you know what you're talking about.

2.4 Google Adwords

- Google AdWords is a marketing tool developed to assist you in displaying ads to promote your products or services online.
- Google processes hundreds of millions of searches per day, so it makes sense to create simple, effective ads and display them to people who are already searching online for information related to your business.
- Paid search marketing has wide appeal for all types of businesses. The pricing model is competitive and relative to your budget, so if you are starting with a "shoe-string" budget, Google AdWords is still within your reach.
- Put simply, AdWords offers precise targeting and measurability, as well as tremendous reach and it's possible to achieve a high ROI on a large scale.

Why Launch a Google Adwords Campaign?

- At its most basic level, launching a Google Adwords campaign is an effective way to drive traffic from the search engine through to your website.
- It can also play a vital role in increasing the reach of your marketing campaign, especially if it's a short-term marketing campaign as opposed to a long-term one, where SEO and other digital marketing technologies can also play a part.
- Organic SEO doesn't always cut it, either. In fact, for the most competitive keywords, the top three ad spots receive around 40% of all of the clicks on the page.
- Google supports both display advertisements, through its two million display network partner sites, and text advertisements, on its search engine results page. It's estimated that the company has an 18% share of all media advertising, both online and off.



What Are The Benefits Of Google Adwords?

1. Outrank Competitors On The World's Largest Search Engine

- If your target audience can't find your website, they're not going to buy from your business. That's why many businesses turn to Google ads.
- They know that the powerful advertising platform will allow them to pay to climb to the top of search engine results pages (SERPs) for selected keywords.
- This can be valuable for brand awareness and is a particularly common approach for e-commerce stores, who can bid on keywords related to the products they stock and use it as an ongoing source of leads and sales.
- E-commerce businesses can even run Google Shopping ads to reach people who are already looking to make a purchase.

2. Adwords Ads Build A Larger Audience For Your Business Or Brand

- Another key advantage of search engine advertising is that you can tap into a huge potential audience.
- When a brand first starts out, one of the biggest initial challenges is brand awareness. Back in the day, building a brand was a long, slow process that took time, money and perseverance.

3. Google Ads Are Faster Than SEO

- We've hinted at this elsewhere in this article, but it's more than deserving of a section of its own.
- In fact, this is arguably the biggest advantage of using Google Adwords Express to reach your audience. Launching PPC ads is like turning on a fire-hose in that you'll start to see the results immediately.
- Having an SEO strategy is always a good idea, no matter how large your business is, but SEO takes time and not all businesses have that luxury.



4. Adwords advertising can be scheduled to reach the right people at the right time

- There's a saying that advertising and marketing are all about reaching the right person in the right place with the right message at the right time.
- Different platforms have different strengths.

For example, YouTube advertising can allow you to tap into the awesome power of video, while your remarketing list can help you to reach people who have previously shown purchasing intent.

5. Use A Remarketing List To Reach Your Audience With Specific Pieces Of Content

- We've talked about remarketing (also known as retargeting) quite a lot throughout this post, and there's a good reason for that.
- Remarketing works by allowing you to create a list of people who've visited your brand site and to launch a remarketing campaign to bring them back in. Remarketing can be particularly powerful for ecommerce businesses because they can encourage audience members who visited the site and left to come back and complete their purchase

For example, you can split your audience up based on keywords, Google Analytics data, Facebook data and more. Further, you can develop different types of content for each different audience.

Adwords Are 100% Measurable And Scalable

- Finally, and perhaps most importantly, one of the biggest benefits of running a Google Adwords campaign is that, like most aspects of digital marketing, it's fully measurable.
- This is especially true if you combine it with Google Analytics and other measurement tools. This holds true for everything from campaign microsites to e-commerce stores.
- This is important because while driving traffic to your business website is all well and good, it doesn't achieve anything unless people take an action. You can achieve a high click-through rate and a low bounce rate, but your advertising campaign will run at a loss unless you also achieve a high conversion rate.
- Measuring your click-through rate and conversion rate means that once you're satisfied with your PPC advertising performance, you can scale the ads up to drive even more traffic and to further boost conversions.
- And if your budget is starting to run low, you can scale them down again, too.

2.5 Google adsense

- Google adsense provide a way for publisher to earn money from their online content. Adsense works by matching ads to your site based on their content & visitor
- The ads are created & paid for by advertiser who want to promote their product.
- These advertiser pay different prices for different ads, the amount you earn will vary

Adsense follow these three steps :

1. you make your ad space available
2. The highest paying ads appear on your site
3. You get paid

How AdSense Works

Just as ads appear on google.com, you too can display ads on your site. Advertisers submit and manage their ads to Google by using AdWords while you, the publisher, use AdSense to display these ads on your site.



How do relevant ads display on my site?

Contextual Targeting

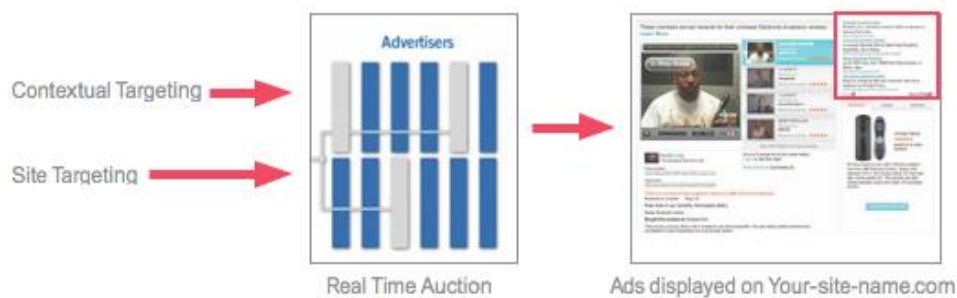
These ads created by advertisers are automatically matched to the content of your site (even if that content changes).

Site Placement Targeting

Advertisers can bid to appear on your site based on demographics, vertical (topic), geographical location, or audience interest.

Real Time Auction

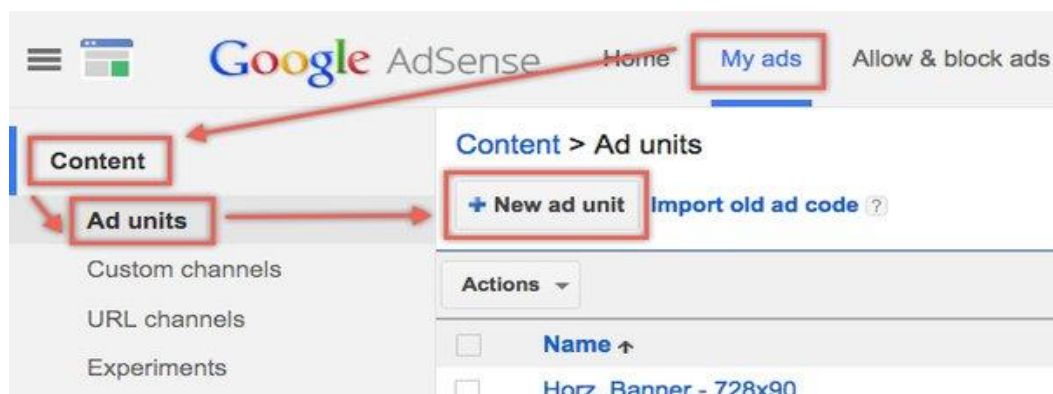
Ads compete in a real-time auction to appear on your pages, and the winning ads will always be those that will generate the most money for you.



Creating Ad Units

Step 1) Select a Product

To begin, sign in and click the “My ads” tab. Confirm the product selected is Content and click New ad unit.



Step 2) Design Your Ad

Now it's time to name and customize your ad unit!

1. **Choose a name for this AdSense unit:**

Provide a descriptive name that you'll recognize so you can easily find this ad unit later if you want to change its settings. This name will appear in your code, but you can remove it from the code if needed. *Example: 300x250, top right, homepage*

2. **Pick your ad size from the drop-down:**

We recommend using larger and wider ad sizes, which tend to perform best. For instance, if you manage a blog, consider a “Skyscraper” for your sidebars, and a “Rectangle” after individual posts.

To see all the size options, please visit the **Ad Formats** page in the **AdSense Help Center**.

3. ***Select ad type:***

This setting defines which types of ads can appear on your pages. We encourage you to choose both text and image/rich media ads, which will allow the widest variety of ads to appear on your pages.

4. ***Set the ad style:***

You can customize the style of your ad units by choosing fonts and colors. We recommend choosing a color scheme that matches the look and feel of your site.

5. ***Add custom channels:***

Custom channels are used to group ad units together to help you track the effectiveness of your ads. For now, let’s skip this optional step – we’ll explain channels in detail later, since they’re a little bit complicated for your first ad unit.

6. ***Set backup ads:***

Backup ads are another advanced option that let you choose what to display on your pages if Google isn’t able to show targeted ads.

7. Click **Save** and get code.

Step 3) Get and Paste Code

1. ***Copy the ad code.***

The pop-up box shows the code for the ad unit you’ve designed.

To copy your code, click anywhere in the “Ad code” box to select its contents. You’ll know the code has been selected when the entire box is highlighted in blue.

2. ***Paste the ad code.***

The next step is to paste the code into your website’s HTML source code. To paste the code and show ads, you need to be able to edit the HTML source code of your pages.

Ad unit: **yoursite_300x250ATF**
GENERATE TAGS
History

Status: **Active**

Settings
Line Items
Ad exclusions

1 setting(s) overridden

Code ? yoursite_300x250ATF
Name ? yoursite_300x250ATF [edit](#)
Description ? *None* [edit](#)
optional
Sizes ? 300x250 [edit](#)
optional
Target window ? [_blank](#) [edit](#) | [clear override](#)
Reward ? 1 reward
Use Google Ad Manager reward settings instead of the reward settings returned by third-party ad networks when using mediation
[override](#)
Placements ? 0 individual placement(s) [edit](#)
optional
AdSense inventory settings Enabled
[+] Show
[override](#)
Ad unit frequency ? None [edit](#)
caps
Refresh rate ? No refresh [edit](#)
optional

Step 4) Confirm The Ad Shows On Your Site

After you've pasted the code and saved your site, please confirm your ad unit appears on your website.

Channels

Channels are like labels that let you group ad units as you choose – for example, by colors, categories, or pages.

Here are a few types of tracking you can do with channels:

- Track performance of a Leaderboard format on several pages versus a banner format on other pages
- Compare overall ad earnings from your motorcycle pages against earnings from your automobile pages
- A channel to track each of your separate domains, so you can see where your clicks are coming from

There are two types of channels: *URL Channels* and *Custom Channels*

URL Channels track the performance of particular pages in your site.

Custom Channels track any ad units you choose to group together, allowing you to get detailed, customized reports. By pasting channel-specific ad code into your pages, you can track a variety of metrics across a range of URLs. Use custom channels to track the

performance of different ad formats, for example, or to compare different page topics to one another. You can also turn any custom channel into an ad placement on which advertisers can choose to place their ads.

Creating Channels: URL Channels

URL Channels are easy to implement. You don't have to change your ad code to use channels, so you can create channels in your account, then immediately begin tracking performance.

Create a URL Channel

1. Sign into your account
2. Visit the **Performance Reports** tab
3. From the sidebar, choose **URL Channels**
4. Above the table, click **Add URLs to track**
5. In the text box, enter the URL that you would like to track (*For details on how to enter your URL, see the section below on defining a URL*)
6. Click **Add URLs**

The new URL channel will begin tracking data almost immediately.

- To track a single page: enter the full path of the page
 - **Example:** example.com/sample.html

Creating Channels: Custom Channels

Before creating your custom channels, take some time to consider how channels can best be used on your site. Think about which metrics you'd like to track.

Create a Custom Channel

1. Sign into your account
2. Visit the **My ads** tab
3. In the sidebar, click **Custom channels**
4. Click **New custom channel**
5. Enter a name that will help you to quickly identify this channel later in your reports. For example:

- a. *If you have pages about cars and bikes, you can make “car_pages” or “bike_pages” channels to find out which groups of pages is generating more clicks.*

Tracking Earnings & Payment

- You'll see a daily summary of your estimated earnings on your Home page. For more granular reporting, you can track your estimated AdSense earnings on the Performance Reports tab. There is also important information included in the Payments page, which is linked from the Home tab.
- The Payments page tracks the status of previously issued payments, as well as monthly account calculations. You can click the Earnings details link for any month to view your total finalized earnings, as well as any adjustments made to your account. Once your payment has been issued, you'll see it listed on this page as Payment issued. Click on the link to see the payment details.



Performance Reports

The Performance Reports tab is designed to provide more insight into not just how much you're earning, but also what impacts those earnings. It includes graphs so you can view trends and compare important metrics more easily. It also offers ways to segment your statistics.

2.6 Google webmaster tools

- Google Webmaster Tools (also known as Google Search Console), is a powerful platform that website owners can use to monitor how their site interacts with Google.**
- GWT gives you a detailed insight into the health of your website, reporting technical issues such as crawl errors, mobile optimization problems, and security concerns. It's also packed with a bunch of trackable metrics that are invaluable for SEO, providing you with the data you need to improve your website's organic performance.

- It's also completely free and integrates with Google Analytics and Google Ads for **PPC testing**.

Google Webmaster Features and Uses

There are many things that GWT can do. How useful each is will depend on your specific business needs. Below, we're going to discuss some of the most universally beneficial features and uses of the platform.

1. Monitor your website's performance.

GWT provides vital metrics for monitoring your website's performance, including:

Clicks - The number of times that people have clicked on your website through Google's search results. This not only gives you an insight into the effectiveness of your page titles and meta descriptions, but is also a big indicator of how consistent your traffic is.

Impressions - The "**impressions**" metric refers to how many times your website has popped up in Google's search results, which is handy for identifying your ranking keywords. Sorting by page can tell you which pages rank for specific keywords, adding an extra layer of insight into your optimization strategy.

- **Average CTR** - GWT will show you the percentage of people who have seen your website on Google search results and have decided to click through. **Basically, it is your number of clicks impressions x 100, and is definitely a metric that you want to keep a close eye on.** Through GWT, you can identify your highest (and lowest) CTR queries and monitor them over time.

Average position - Your average position highlights where you're ranking on Google SERPs for specific keywords or pages

2. Watch for indexing errors.

GWT lets you see how many of your website's pages have been indexed by Google since the last site crawl.

More importantly, it highlights any indexing errors or warnings and gives you information for analysis. For example, you might have broken code, blocked URLs, or an issue with your site's theme.

3. Submit a sitemap.

Submitting a sitemap to GWT can improve your site's crawlability and reduce the risk of indexing errors.

It's a great tool for large websites because it's easy for Google to miss changes or additions, but new websites can also reap the benefits of being indexed faster.

4. Perform a URL inspection.

The URL inspection tool allows you to analyze specific URLs. You can see a side-by-side comparison of your live URL and the URL that Google has in its index.

This allows you to check for any errors or inconsistencies, and you can also see the date that the page was last crawled.

5. Keep track of your links.

With backlinks still being incredibly important for any **SEO SaaS strategy**, GWT's links section is one of its most valuable tools.

Not only can you view your website's total number of backlinks, but you can see which domains are linking to you and the anchor text that they use to do it.

The internal links section is a good way to analyze your website's structure and ascertain that your cornerstone content contains the highest number of links.

6. Security and manual actions.

GWT will send you email notifications if any of your pages are not compliant with Google's webmaster guidelines.

For example, if Google detects spam, cloaking or purchased links, it will penalize your site and provide further instructions via this tab

2.7 off page optimization

Links

- Link influence on search engines
- Link Value Social Media
- **Social Media Sites**
- Indirect Influence of Social Media

Other

- Sitemap
- DMOZ
- robots.txt
- Google mini

Off Page SEO – Links

Link Influence on search engines

PageRank algorithm

- External links on a webpage can be interpreted as votes.
- Initially, all votes are considered equal.
- Over the course of time, pages which receive more votes become more important.
- More important pages cast more important votes.
- Votes per Page = Page Importance /
Number of Links.

Links

Link Value

1. Anchor Text: Search engines use the anchor text to help it understand what the page receiving the link is about.
2. Relevance: Links that originate from sites/pages on a closely related topic are worth more.
3. Authority: A site with higher authority will pass along more PageRank. However, search engines will not tell you which sites they consider authoritative.
4. Trust: Trust of a websites takes into account whether the linking page or the website is easy or difficult for spammers to infiltrate. The trust level of a site is based on how many clicks away it is from one or more 'seed' sites.

Benefits of Social Media

Link	Link Influence	Domain Influence	Last Seen ↓
1. N/A www.woodman.ee/en/retailers > www.vivre.ro/	Good	Good	07 Mar 2018
2. https://www.vivre.ro/ www.brdfinance.ro/produxe-si-servicii-carduri-de-credit/cardul-allinclusive-brd-finance > www...	Good	Good	07 Mar 2018
3. N/A www.odgon.ro > www.vivre.ro/user/invite/id/319573	Good	Good	07 Mar 2018
4. 138804. vivre.ro theglobe.net/the_worlds_most_visited_web_pages_138 > www.vivre.ro/	Average	Good	07 Mar 2018
5. 916293. vivre.ro/user/login theglobe.net/the_worlds_most_visited_web_pages_916 > www.vivre.ro/user/login	Average	Good	07 Mar 2018
6. http://www.vivre.ro/ NO FOLLOW www.liviatoloi.ro/2014/03/28/recomand-specialist-marketing-online-caut-job > www.vivre.ro/	Good	Good	07 Mar 2018
7. N/A leaders.ro/programe/explore-liceeni > www.vivre.ro/	Average	Average	07 Mar 2018
8. 916293. vivre.ro/user/login theglobe.net/the_worlds_most_visited_web_pages_916.html > www.vivre.ro/user/login	Average	Good	07 Mar 2018
9. romania www.vivre.eu > www.vivre.ro/	Low	Low	07 Mar 2018
10. vivre www.pagchair.com > www.vivre.ro/	Low	Low	07 Mar 2018

1. It Cost Nothing to Get Started For just a little bit of time and creativity, you can create department and personal pages and keep students informed of new programs.
2. Blogs are Simple to Create You can create targeted content that focuses on your SEO content keywords.
3. Results Can Be Faster Than Traditional Websites You have the opportunity to “go viral” with the content you post using social media.
4. Social Media Posts and Profiles are Included in Search Results All social media posts and profiles are opportunities to get your site noticed by search engines.
- 5.



5. You Can Get Ranked Higher Each time your content is shared, it creates a backlink to your content. This gives you more chances to have PageRank votes passed to your content.
6. There are Lots of Options Variety is the spice of life.
7. Social Media is Easy To Use You don't need to dedicate a lot of time to social media – work on posting quality content and let other users do the work for you by sharing it with their friends.
8. Builds Brand Awareness As you become more visible, as long as you continue to produce quality content, you will soon become an authority figure in your niche.
- 9.Has Unlimited Reach By participating in social media, you will be able to reach users that would have never stumbled upon the university's website.
- 10.Puts Followers to Work for You Let other users share your quality content.
9. Builds Brand Awareness
As you become more visible, as long as you continue to produce quality content, you will soon become an authority figure in your niche.
- 10.Has Unlimited Reach By participating in social media, you will be able to reach users that would have never stumbled upon the university's website.
- 11.Puts Followers to Work for You Let other users share your quality content.

A sitemap is a list of pages of a web site accessible to search engines and users.

Benefits of a Sitemap

1. Helps improve how often and the manner in which search engines crawl your website.
2. Search engines use additional URL's to 'discover' pages they didn't know about.
3. Verification / registration of XML Sitemaps may indicate positive trust / authority signals.
4. A HTML sitemap can further help a user navigate your website.

XML Sitemap

Generated by **YoastSEO**, this is an XML Sitemap, meant for consumption by search engines.

You can find more information about XML sitemaps on sitemaps.org.

This XML Sitemap Index file contains 12 sitemaps.

Sitemap	Last Modified
https://yoast.com/post-sitemap.xml	2015-10-30 15:47
https://yoast.com/page-sitemap.xml	2015-10-24 14:28
https://yoast.com/yoast_plugins-sitemap.xml	2015-10-28 16:39
https://yoast.com/yoast_ebooks-sitemap.xml	2015-10-30 16:42
https://yoast.com/yoast_dev_article-sitemap.xml	2015-10-10 01:56
https://yoast.com/yoast_courses-sitemap.xml	2015-10-27 16:27
https://yoast.com/category-sitemap.xml	2015-10-30 15:47
https://yoast.com/post_tag-sitemap.xml	2015-10-10 01:56
https://yoast.com/yoast_plugin_category-sitemap.xml	2015-10-28 16:39
https://yoast.com/yoast_dev_category-sitemap.xml	2015-10-10 01:56
https://yoast.com/author-sitemap.xml	2013-08-06 10:54
https://yoast.com/video-sitemap.xml	2015-10-27 14:20

FIG : XML SITEMAP

```
sitemapindex xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
<sitemap>
<loc>https://www.woorank.com/sitemap1.gz</loc>
<lastmod>2015-04-11</lastmod>
</sitemap>
<sitemap>
<loc>https://www.woorank.com/sitemap2.gz</loc>
<lastmod>2015-05-21</lastmod>
</sitemap>
<sitemap>
<loc>https://www.woorank.com/sitemap3.gz</loc>
<lastmod>2015-06-09</lastmod>
</sitemap>
<sitemap>
<loc>https://www.woorank.com/sitemap4.gz</loc>
<lastmod>2015-07-15</lastmod>
</sitemap>
<sitemap>
<loc>https://www.woorank.com/sitemap5.gz</loc>
<lastmod>2015-08-12</lastmod>
</sitemap>
<sitemap>
<loc>https://www.woorank.com/sitemap6.gz</loc>
<lastmod>2015-09-01</lastmod>
</sitemap>
<sitemap>
<loc>https://www.woorank.com/sitemap7.gz</loc>
<lastmod>2015-10-07</lastmod>
</sitemap>
</sitemapindex>
```

FIG : HTML SITEMAP

DMOZ – Open Directory Project

“The Open Directory Project is the largest, most comprehensive human-edited directory of the Web. It is constructed and maintained by a vast, global community of volunteer editors.”

robots.txt

This is a file that is located on the root level of our domain.

Benefits of robots.txt

1. Prevents search engines from accessing nonpublic parts of our website.
2. Block search engines from accessing out pages of code.
3. Avoid the indexation of duplicate content on our website, such as “print” or “mobile” versions of webpages.
4. Auto-discover Sitemaps.

Google Mini

Not everyone who enters our website is coming through the front door (homepage).The Google mini appliance helps user’s navigate deeper into our website without having to click their way through to the page they need. Within the Google mini appliance, we have total control over page placement by keyword.

2.8 web crawlers

Web crawling is the process by which we gather pages from the Web, in order to index them and support a search engine. The objective of crawling is to quickly and efficiently gather as many useful web pages as possible, together with the link structure that interconnects them.

Crawling is tracking & gathering URL to prepare for Indexing by giving them a webpage as a starting point. They will trace all valid links on these pages. Not all links are able to crawled due to one or more the following cases :

- The server was down when link crawling
- Link coding is in java script for format know as spidertrap
- link market for exclusion via robot.txt
- link with in the page contain no follow directive
- There are no external link there is the ob sense of sitemap.xml known as orphaned link

Features a crawler must provide

features that web crawlers must provide, followed by features they should provide.

Robustness: The Web contains servers that create spider traps, which are generators of web pages that mislead crawlers into getting stuck fetching an infinite number of pages in a particular domain.

Politeness: Web servers have both implicit and explicit policies regulating the rate at which a crawler can visit them. These politeness policies must be respected.

Features a crawler should provide

Distributed: The crawler should have the ability to execute in a distributed fashion across multiple machines.

Scalable: The crawler architecture should permit scaling up the crawl rate by adding extra machines and bandwidth.

Performance and efficiency: The crawl system should make efficient use of various system resources including processor, storage and network bandwidth.

Quality: Given that a significant fraction of all web pages are of poor utility for serving user query needs, the crawler should be biased towards fetching “useful” pages first.

Freshness: In many applications, the crawler should operate in continuous mode: it should obtain fresh copies of previously fetched pages.

Crawling:

The crawler begins with one or more URLs that constitute a seed set. It picks a URL from this seed set, then fetches the web page at that URL.

The fetched page is then parsed, to extract both the text and the links from the page (each of which points to another URL). The extracted text is fed to a text indexer

The extracted links (URLs) are then added to a URL frontier, which at all times consists of URLs whose corresponding pages have yet to be fetched by the crawler.

Initially, the URL frontier contains the seed set; as pages are fetched, the corresponding URLs are deleted from the URL frontier. The entire process may be viewed as traversing the web graph

In continuous crawling, the URL of a fetched page is added back to the frontier for fetching again in the future.

Before proceeding to this detailed description, we reiterate for readers who may attempt to build crawlers of some basic properties any non-professional crawler should satisfy:

1. Only one connection should be open to any given host at a time.
2. A waiting time of a few seconds should occur between successive requests to a host.
3. Politeness restrictions

Crawler architecture

- The URL frontier, containing URLs yet to be fetched in the current crawl
- A DNS resolution module that determines the web server from which to fetch the page specified by a URL.
- A fetch module that uses the http protocol to retrieve the web page at a URL.
- A parsing module that extracts the text and set of links from a fetched web page.
- A duplicate elimination module that determines whether an extracted link is already in the URL frontier or has recently been fetched.

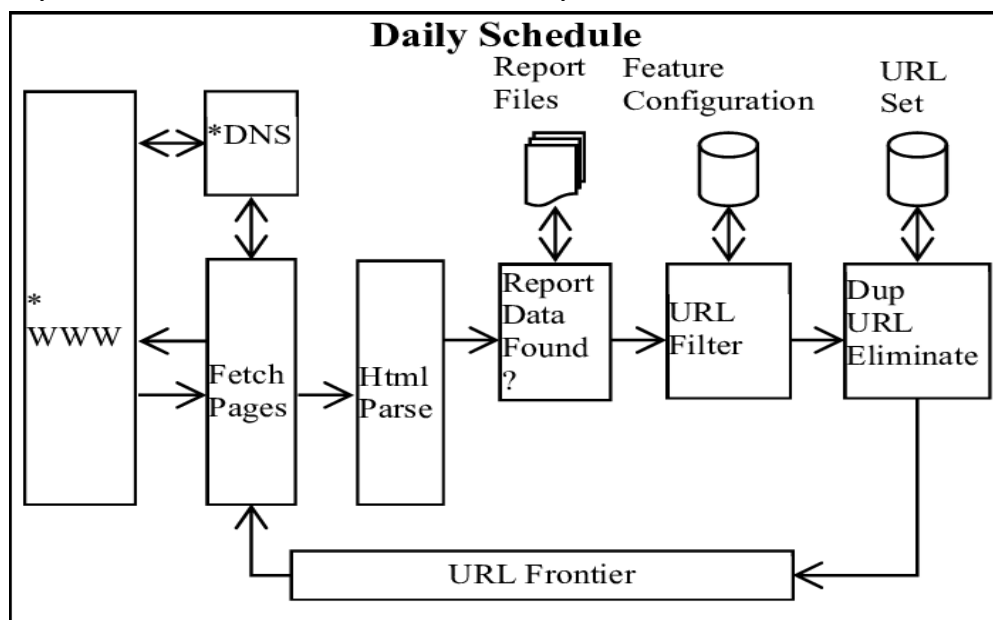


FIG :The basic crawler architecture

Crawling is performed by anywhere from one to potentially hundreds of threads, each of which loops through the logical cycle in Figure

These threads may be run in a single process, or be partitioned among multiple processes running at different nodes of a distributed system.

The progress of a single URL through the cycle of being fetched, passing through various checks and filters, then finally (for continuous crawling) being returned to the URL frontier.

A crawler thread begins by taking a URL from the frontier and fetching the web page at that URL, generally using the http protocol. The fetched page is then written into a temporary store, where a number of operations are performed on it.

Next, the page is parsed and the text as well as the links in it are extracted. The text (with any tag information – e.g., terms in boldface) is passed on to the indexer.

Link information including anchor text is also passed on to the indexer for use in ranking in ways that are described

In addition, each extracted link goes through a series of tests to determine whether the link should be added to the URL frontier.

The robots.txt file must be fetched from a website in order to test whether the URL under consideration passes the robot restrictions, and can therefore be added to the URL frontier. cache can be used to obtain a recently fetched copy of the file for the host.

Next, a URL should be normalized in the following sense: often the HTML encoding of a link from a web page p indicates the target of that link relative to the page p.

page en.wikipedia.org/wiki/Main_Page:points to the URL
http://en.wikipedia.org/wiki/Wikipedia:General_disclaimer.

Distributing the crawler

The threads in a crawler could run under different processes, each at a different node of a distributed crawling system. Such distribution is essential for scaling;

it can also be of use in a geographically distributed crawler system where each node crawls hosts “near” it. Partitioning the hosts being crawled amongst the crawler nodes can be done by a hash function, or by some more specifically tailored policy.

1. Unlike the URL frontier and the duplicate elimination module, document fingerprints/shingles cannot be partitioned based on host name. There is nothing preventing the same (or highly similar) content from appearing on different web servers.

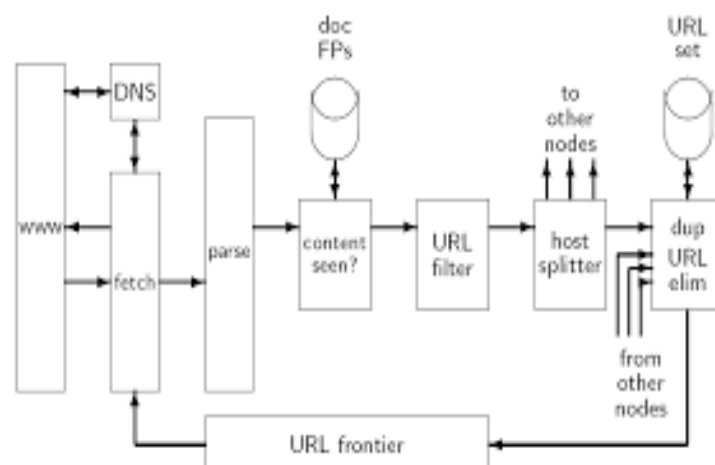


FIG : Distributing the basic crawl architecture.

2. There is very little locality in the stream of document fingerprints/shingles.
3. Documents change over time and so, in the context of continuous crawling, we must be able to delete their outdated fingerprints/shingles

DNS resolution

Each web server (and indeed any host connected to the internet) has a unique IP address: a sequence of four bytes generally represented as four integers separated by dots; for instance 207.142.131.248 is the numerical IP address associated with the host `www.wikipedia.org`.

Given a URL such as `www.wikipedia.org` in textual form, translating it to an IP address is a process known as DNS resolution or DNS lookup; here DNS stands for Domain Name Service. During DNS resolution, the program that wishes to perform this translation (in our case, a component of the web crawler) contacts a DNS SERVER, a DNS server that returns the translated IP address.

DNS resolution is a well-known bottleneck in web crawling. Due to the distributed nature of the Domain Name Service, DNS resolution may entail multiple requests and round-trips across the internet, requiring seconds and sometimes even longer.

Our goal of fetching several hundred documents a second. A standard remedy is to introduce caching: URLs for which we have recently performed DNS lookups are likely to be found in the DNS cache, avoiding the need to go to the DNS servers on the internet.

There is another important difficulty in DNS resolution; the lookup implementations in standard libraries (likely to be used by anyone developing a crawler) are generally synchronous.

Domain Name Service, other crawler threads at that node are blocked until the first request is completed.

The URL frontier

The URL frontier at a node is given a URL by its crawl process (or by the host splitter of another crawl process). It maintains the URLs in the frontier and regurgitates them in some order whenever a crawler thread seeks a URL.

Two important considerations govern the order in which URLs are returned by the frontier.

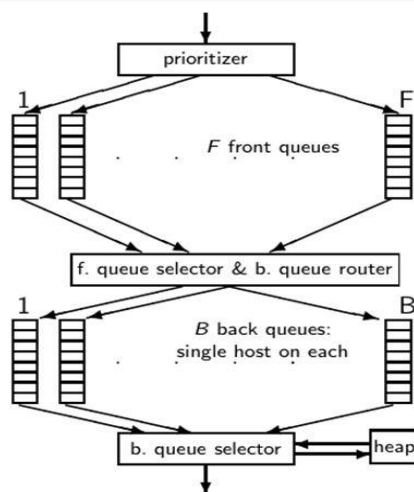
First, high-quality pages that change frequently should be prioritized for frequent crawling. Thus, the priority of a page should be a function of both its change

rate and its quality (using some reasonable quality estimate). The combination is necessary because a large number of spam pages change completely on every fetch.

The second consideration is politeness: we must avoid repeated fetch requests to a host within a short time span. The likelihood of this is exacerbated because of a form of locality of reference:

The two major sub-modules are a set of F front queues in the upper portion of the figure, and a set of B back queues in the lower part; all of these are FIFO queues. The front queues implement the prioritization, while the back queues implement politeness.

Mercator URL frontier



- URLs flow in from the top into the frontier.
- Front queues manage prioritization.
- Back queues enforce politeness.

32

FIG : The URL frontier

2.9 keyword strategy

Keyword strategies are essential to developing winning search engine marketing campaigns. Your keyword strategy should involve selecting high-performing keywords that drive relevant traffic to your business. Choosing the right keywords for advertising can make all the difference in your campaigns, determining how well your advertisements rank on Google and other search engine platforms.

When looking to increase traffic on your site or blog, using relevant keywords should be step one. A strong keyword strategy is important for SEO because it increases both site visibility and traffic.

How Do Keywords Relate To Digital Marketing?

When a potential consumer goes to a search engine like Google to look for something, they type in words or phrases to guide their search. These are keywords: the key terms website users enter to find what they are looking for.

This is why it is so important to research keywords to see what will work well for your organization.

Keywords need to be:

- Something users will search for.
- Relevant to your brand.
- Terms that can be seamlessly integrated into all your online content.

Once you know which keywords to focus on, you can begin to use them strategically throughout your digital marketing content.

Different Types Of Keywords For Digital Marketing

There are three main types of keywords: short-tail (also called head), middle-tail (also called body) and long-tail. **Blogging Wizard** does a nice job of explaining each term:

- **Short-tail keywords** usually consist of one or two words (e.g., "WordPress themes"). These keywords are broad and generic but often ambiguous, with a high search volume.
- **Middle-tail keywords** usually consist of three or four words (e.g., "WordPress themes for blog"). They are more specific than short-tail keywords but have lower search volume.
- **Long-tail keywords** usually consist of four or more words (e.g., "free responsive WordPress themes for blog"). These are more detailed and very specific, but the search volume is even lower.

Keyword Research

You have now reached the final step of creating a keyword strategy: keyword research.

Quality keyword research is as essential as doing market research for marketing strategy. By the same token, forming a keyword strategy for B2B marketing and SEO needs heavy research as well. When doing keyword research, there are three important factors to remember:

1. Localized Search Volume

Localized Search Volume tells you how many people are searching for a certain phrase.

There are four factors to localized search volume:

- relevance
- specificity
- popularity

- competitiveness

Bottom line, relevant keywords should match your site's products, services, and content. For B2B marketers, the four factors make developing keyword strategy much easier.

2. Keyword Competitiveness

Keyword competitiveness lets you know which keywords often show up on other websites. This usually means that your keyword strategy concept exists on other sites. For B2B marketing and SEO, keyword competitiveness is a little different. Since keywords and themes are more specific, there's a lower chance of other sites using the same keywords. Of course, remember that most B2B companies write about similar issues and concepts.

Keyword Competition tools can make things much easier on your keyword strategy. Some tools include the Adwords Keyword Planner (you can tailor this for B2B) and MozBar. Google Adwords help you discover and compare new keywords.

3. Ranking Competition

Finally, to complete keyword research, you must analyze your keyword's ranking competition. Ranking competition helps you find out how powerful your competitors are. Some tools to help with this stage include:

- MozRank
- PageRank Checker

2.10 SEO friendly website design, Hosting & Integration

SEO website design layout a website framework & details to higher in search engine results. SEO friendly website allow you to gain more relevant traffic from search engine & keep user for longer, thus converting them into customer. Well optimized websites also enable long-term organic growth for the company without the need for continuous investment like advertising.

The design of a website is one of the most important key success factor & it does not only affect the user experience , but also SEO campaign

Developing quality content is important but its not the only part of your strategy that must be optimized. Displaying the content properly & having a solid hierarchy & easy navigation is the key for an effective web pretense.



FIG : SEO website design

Guidelines for SEO friendly website design

- Group the content by relevance & use descriptive menu items to help user find easily the information that they are looking for
- Use Text link is footer to support navigation. Text link is very useful both for the user & search engine
- Use bread crumb navigation to allow user keep track of their location within your website & help search engine understand your website structure
- Consider each page as a landing page providing all the information to the user inform him. Where he is & what to see next
- Don't change the template of your website in every category. It makes navigation in your website more difficult for the average user
- Avoid horizontal scroll. It is not user friendly

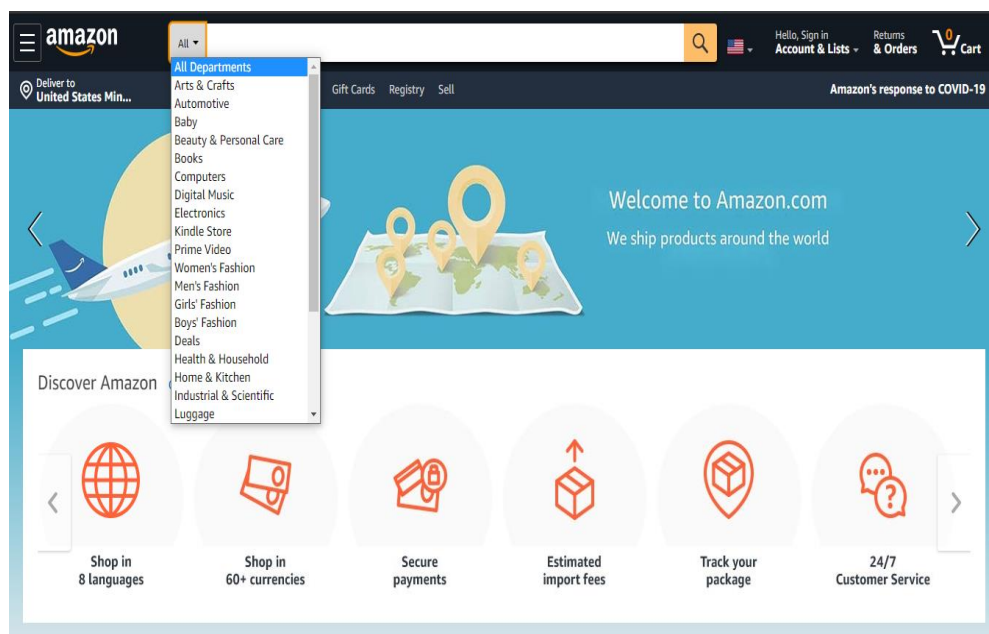
- avoid pop-up & unnecessary use of blurring image as they are annoying for most user
- Make the content shareable by incorporating in your design & social media button
- make your reserve space for ad banner & don't forget to use the standard ad sizes
- Avoid using flash for navigation
- Make sure that the design fit to the standard screen resolution . Typically you should design the website for 1024*768 screens

Which principles can't be missing from this combination ?

Learn the fundamental & essential element to create an attractive website for the both persona & search engine

1. Navigation & site structure

It can be said that a website is organized in a similar way. We separate products or content into categories and subcategories while following a hierarchy. They are available in menus, so that the user can browse according to what they are looking for.



2. Content layout

It is already well-known that SEO content quality is one of the most important factors for Google's algorithm. So, value the information that your site has to offer.

3. Responsiveness

A [responsive design](#)—having the ability to adapt to the screen size of the user’s device—is indispensable, especially with the growing use of mobile internet in the world. To illustrate this, mobile is already the main means of internet access in many countries across the world.

4. Use of images

The visual appeal of a website is crucial to generate a connection between the visitor and the brand. In this sense, images are important allies to improve the appearance and complement the text content present on the page.