

Unit-4

- Web Positioning
 - Search Engine Optimization
 - Need of SEO
 - SEO Techniques
 - Optimizing the site
 - Content and the Search Engines
 - Advertising on Search Engines
 - Advantages of SEM
 - SEM Techniques
 - SEO vs SEM
 - Digital Contents
 - Designing Ads
 - SEM Tools (Keyword Spy, PPC Web Spy)





WEB POSITIONING

- Web positioning is based on techniques aimed a website appear in the top positions of search engines like Google, Yahoo, Bing, among others.
- The positioning is done directly on a series of words or phrases which are known as keywords.
- There are two types of results when you search, the first type are paid results is known as advertising and the second type they are organic or natural.
- **Organic web positioning** focuses on content and links.
- First, the content is of great importance to be unique, there is no point on copying content from other websites; and SEO should not only be limited to the content itself, it should take into account other factors such as titles, HTML tags, keywords, etc.
- Second, are the links, mainly directed to the web; in this case it becomes important who points us.

WEB POSITIONING

- Simple steps will set you in the right direction.
 - Develop an understanding of your market
 - Understand what your market is searching for
 - Develop content that meets these needs
 - Develop a link building strategy
 - Build a search engine friendly website

SEO

- SEO stands for “search engine optimization.”
- It is the process of getting traffic from the “free,” “organic,” “editorial” or “natural” search results on search engines.
- All major search engines such as Google, Bing and Yahoo have primary search results, where web pages and other content such as videos or local listings are shown and ranked based on what the search engine considers most relevant to users.

What goes into SEO?

To understand the true meaning of SEO, let's break that definition down and look at the parts:

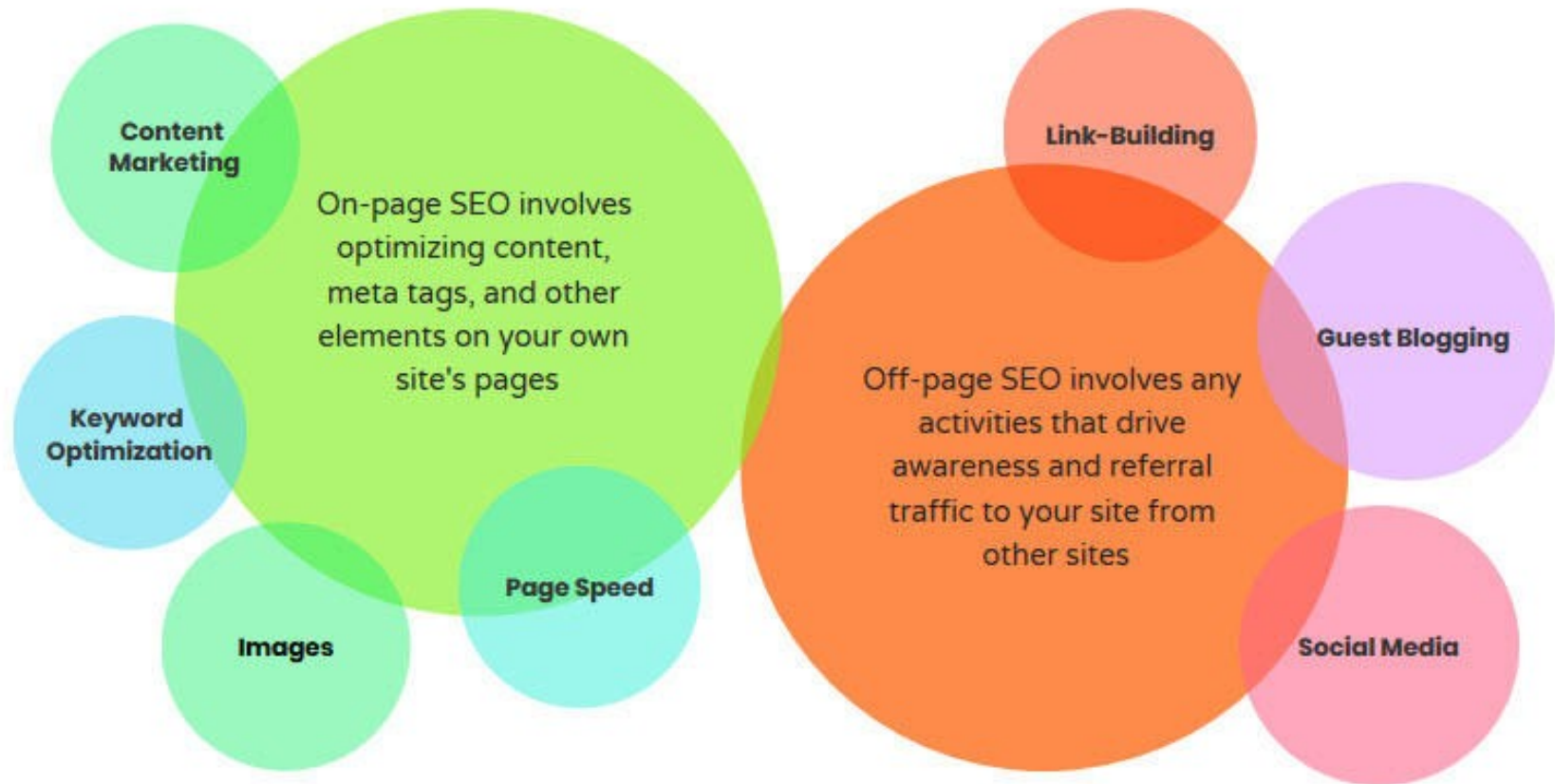
- **Quality of traffic.** You can attract all the visitors in the world, but if they're coming to your site because Google tells them you're a resource for Apple computers when really you're a farmer selling apples, that is not quality traffic. Instead you want to attract visitors who are genuinely interested in products that you offer.
- **Quantity of traffic.** Once you have the right people clicking through from those search engine results pages (SERPs), more traffic is better.
- **Organic results.** Ads make up a significant portion of many SERPs. Organic traffic is any traffic that you don't have to pay for.

SEO Techniques



Optimizing the Site

ON-PAGE SEO *VS.* OFF-PAGE SEO



Steps for optimizing the site

1. Make your website useful for your specific audience
2. Grow your organic traffic
3. Capitalize on existing traffic
4. Force your website to work harder
5. Give your audience what they want and expect

Types of SEO

- SEO is the process of optimizing a website (making a website easy to understand by search engines and users) to increase the organic traffic.
- The search engines like Google have issued some guidelines that one has to follow while optimizing a site.
- If the SEO is done in accordance with the guidelines, it is called **White Hat SEO**, and if it is done without following the guidelines, it is called **Black Hat SEO**.

White Hat SEO

- It refers to the SEO techniques which are in accordance with the SEO guidelines set by the search engines.
- It means it uses approved search engine optimization techniques to improve the ranking of a site on **search engine results pages (SERP)**.
- Unlike Black Hat SEO, it mainly focuses on the human audience as opposed to a search engine.
- People who are looking for long-term investment on their websites rely on white hat SEO techniques.
- **Examples** of White Hat SEO include quality content, internal linking, link building, site optimization, social media marketing, Google Ads, etc.

Black Hat SEO

- It refers to the SEO techniques which are with thenot in accordance SEO guidelines set by the search engines.
- These techniques exploit the weaknesses in search engines to get higher rankings for websites on the search engine results pages (SERP).
- It mainly focuses on search engines and not on the human audience. People who are looking for a quick financial return on their website rather than a long term investment use black hat SEO techniques.
- Sometimes, it may give quick results, but only for short duration, and over time it will have the opposite effect, e.g., it may downgrade your ranking and get you blacklisted by search engines.
- **Examples** of Black Hat SEO include keyword stuffing, duplicate content, cloaking, hiding content, thin content, doorway pages, link sachems, etc

How Search Engines Works?

- **The work of the search engine is divided into three stages, i.e.,**
 - Crawling
 - Indexing
 - Retrieval(Ranking)

Crawling

- This is the first step in which a search engine uses web crawlers to find out the webpages on the World Wide Web.
- **A web crawler is a program used by Google to make an index.**
- It is designed for crawling, which is a process in which the crawler browses the web and stores the information about the webpages visited by it in the form of an index.
- So, the search engines have the web crawlers or spiders to perform crawling, and the task of crawler is to visit a web page, read it, and follow the links to other web pages of the site.
- Each time the crawler visits a webpage, it makes a copy of the page and adds its URL to the index.
- After adding the URL, it regularly visits the sites like every month or two to look for updates or changes.

Indexing

- In this stage, the copies of webpages made by the crawler during crawling are returned to the search engine and stored in a data centre.
- Using these copies, the crawler creates the index of the search engine.
- Each of the webpages that you see on search engine listings is crawled and added to the index by the web crawler.
- our website should be in the index only then it will appear in the search engine pages.
- We can say that the index is like a huge book which contains a copy of each web page found by the crawler. If any webpage changes, the crawler updates the book with new content.

Retrieval

- This is the final stage in which the search engine provides the most useful and relevant answers in a particular order in response to a search query submitted by the user.
- Search engines use algorithms to improve the search results so that only genuine information could reach the users, e.g.,
- **PageRank is a popular algorithm** used by search engines.
- It shifts through the pages recorded in the index and shows those webpages on the first page of the results that it thinks are the best.

Website Design SEO Guidelines

- 1) Choose the best keywords
- 2) Original/unique content
- 3) Have enough words
- 4) Optimum keyword density
- 5) Short paragraphs
- 6) Bullets and numbering
- 7) Relevant linking
- 8) Proof read content

Advertising on Search Engines

- Search engine advertising (also known as search advertising, Internet search advertising, or online search advertising) allows you to directly display your paid ads among the search results on various search engines, like Google, Bing, and Yahoo

Search Engine Marketing (SEM)

- Search engine marketing, or SEM, is one of the most effective ways to grow your business in an increasingly competitive marketplace. With millions of businesses out there all vying for the same eyeballs, it's never been more important to advertise online, and search engine marketing is the most effective way to promote your products and grow your business.

The screenshot shows a Google search for "camping equipment". The search bar at the top contains the text "camping equipment" and a magnifying glass icon. Below the search bar, navigation tabs for "Web", "Maps", "Shopping", "Images", "Videos", "More", and "Search tools" are visible. The results page indicates "About 4,080,000 results (0.59 seconds)".

Organic Search Results:

- Camping Equipment Sale - SierraTradingPost.com**
www.sierratradingpost.com/ Save Up To 70% on Camping Equipment. Love The Deals. Live The Adventure. Brands: Arc'teryx, Bills Khakis, Burton, Columbia Sportswear, ... Rated Excellent in Customer Service - Stella Service
- Outdoor Camping Gear - Kohls.com**
www.kohls.com/Camping&Outdoor Shop Camping & Outdoor Gear. Kohl's®: Orders Over \$75 Ship Free! Brands: AeroBed, Airbac, Big Agnes, Camelbak, ... 100 Derby St, Hingham, MA - (781) 749-0763
- Camping Gear - Tents, Sleeping Bags & Camping Supplies ...**
www.cabelas.com/category/Camping/104795280.uts Cabela's Shop camping gear at Cabela's, featuring all your camping equipment including tents, sleeping bags, outdoor cooking, survival and navigation equipment. New & Top Rated Camping Gear - Tents - Camping Sale
- Camping & Hiking Gear at REI: Tents, Backpacks, Stoves ...**
www.rei.com/h/camping-and-hiking REI But we don't just sell camping equipment—we help you put it to use. Check out our dozens of camping and hiking articles and videos online, camping-skills ...

Sponsored Results (Shopping Ads):

Shop for camping equipment on Google			
Oztent JV Signature Edi... \$1,500.00 Alpha Expedi...	Stansport 2 Person Camp... \$127.99 Target	Camp Chef Outdoor Cam... \$229.00 OutdoorCook... ★★★★★ (21)	III Series Simpson Roo... \$242.67 CARID.com
Cabela's cabela s outfit... \$969.99 Cabela's Special offer	Kamprite Double Tent... \$223.03 Rakuten.com	Kodiak Canvas Tent 6010 10... \$499.00 competitivee...	Kodiak Canvas Cabin Tent wi... \$699.99 Cabela's Special offer

Search Engine Marketing

- Search engine marketing is the practice of marketing a business using paid advertisements that appear on **search engine results pages (or SERPs)**.
- Advertisers bid on keywords that users of services such as Google and Bing might enter when looking for certain products or services, which gives the advertiser the opportunity for their ads to appear alongside results for those search queries.
- These ads, often known by the term **pay-per-click ads**, come in a variety of formats. Some are small, text-based ads, whereas others, such as product listing ads are more visual, product-based advertisements that allow consumers to see important information at-a-glance, such as price and reviews.

How does search engine advertising work?

- Search engine advertising operates using an auction-based system, in which advertisers bid on certain keywords relevant to their product or service. It should be mentioned, however, that bids and clicks are different.

Max Bid \times Quality Score = Ad Rank \rightarrow Position

Advertiser 1	\$2.00	10	★★★★★ ★★★★★	20	\rightarrow 1
Advertiser 2	\$4.00	4	★★★☆☆ ☆☆☆☆☆	16	\rightarrow 2
Advertiser 3	\$6.00	2	★★☆☆☆ ☆☆☆☆☆	12	\rightarrow 3

Quality Score

- Quality Score indicates how well your ad meets the needs and search intent of your target audience, and is used by the search engine to provide searchers with the most useful results possible.
- To calculate Quality Score, SEM platforms look at a variety of factors



Advantages of SEM








Advantages of SEM

- Increase the more traffic
- Long term positioning
- Targeted traffic
- Cost effective









SEO

-  You don't need to pay for the website clicks
-  It will take a time
-  Long-term benefits
-  Prefer for the low budgeted agencies
-  Search engine show results as per their rules
-  You can't target a specific country or region
-  Ex. Creating backlinks on high-quality websites, Meta optimization

SEM

-  You have to pay for the website clicks
-  Immediate result
-  Short-term benefits
-  Prefer for the Big budgeted agencies
-  You can use responsive ads and many other Ad features
-  You can target a specific country or region
-  Ex. PPC Advertising, Google Ads

SEM Tools

- Search engine marketing tools help marketers manage and optimize paid search ads. SEM tools allow users to research keywords, set a budget, run paid ad campaigns, act on intelligent bidding recommendations, automate bidding and copy generation, and analyze and forecast results.
- The goal of search engine marketing tools is to bring a target audience to your website, particularly for keywords where you are not likely to be the top organic result.
- The most widely used SEM software include those offered by search engines themselves, such as **Google AdWords and Bing Ads.**

SEM Tools

- **Google Ads**
- **Bing Ads**
- **Google Marketing Platforms**
- **Marin Software**
- **WordStream Advisor**
- **Acquisio**

Open source SEM Tools

Top 10 Open Source SIEM Tools

- SIEMonster
- OSSEC
- Snort
- The ELK Stack
- OSSIM
- Sagan
- Prelude
- Wazuh
- MozDef
- Apache Metron

