IMPACT ON WEBSITE TRAFFIC DUE TO GOOGLE ALGORITHM UPDATE

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ABSTRACT

Search engine optimization is a digital marketing technique that helps you gain website traffic and website rankings. Over the years, SEO has evolved with future needs. However, webmasters have also found various loopholes that help them gain rankings on search engines. Google is well aware of that, which is why it constantly updates its algorithm to filter out the websites that use SEO tactics that are not in compliance with search engine best practices. For this purpose, it is important to understand Google's Algorithm and what it values, so that we can tailor our marketing strategy, and provide value to the users. For this purpose, in this research paper, we understand the factors that the algorithm considers before ranking websites or web pages in the top results. We also take a look at the important algorithm updates that have been rolled out in the past, and how they have impacted website traffic, and rankings.

I. INTRODUCTION

Search engine optimization (SEO) is a process that aims to improve the visibility of a website or a web page in search engine's organic or un-paid search results. In general, the higher a page ranks on the search results page, and more frequently a site appears in the search results list, the more visitors it will receive from the search engine's users(Sonawane, 2015). According to IAMAI report titled 'Internet in India', It is stated that there are a total 692 million active internet users in India, with predictions that India will have 900 million internet users by the year 2025. In the light of this research one can foresee the importance that digital marketing will gain, especially SEO in the future- as there are 145 million searches happening per hour on Google itself (Internet Live Stats, 2022).

According to research conducted in the past, Siteefy states that the number of websites online changes every second. However, during the survey conducted by Netcraft's in July 2022, there are over a billion websites (1,139,467,659 exact number) present over the internet. However, a significant number (over 70% websites) are said to be inactive or spam.

This is why, Google uses a specific algorithm to filter and penalize spam websites from getting indexed. The assign high ranks to websites that provide value to users, and low ranks to websites that do not follow SEO best practices. In case a website is spam, or inactive, then Google removes the website's web page or particular web page from the index(Saberi, 2013). SEO is completely based on search

engine algorithms that crawl, index, and ranks websites on search engine result page. However, Google announces regular updates and modifications in its algorithm, which are sometimes official, whereas sometimes kept hidden. They provide great challenges for digital marketing or SEO specialists. But learning and adapting according to them is equally vital(Joshi, 2018). Hence, it is important to examine and learn about search algorithms in search engine optimization(Saberi, 2013). As there are always some concepts which are hidden and implemented in algorithms, it is important to comprehend what is known, to improve website performance (website traffic), and rankings in a positive manner.(Joshi, 2018). By learning about Google Algorithm, our website can gain website traffic, which can help to spread awareness about product or service, or showcase content to those interested in the brands offerings (M.Megala, 2014).

This research aims to observe the impact of Google Algorithm Update on website performance by monitoring overall, organic, referral, and direct traffic through Google Analytics. Here, it is argued that by understanding these updates and tracking website metrics we can create a better SEO strategy and improve SEO results. Further, the research paper also talks about how using search engines' best practices can help us reduce deviation after an update is completely rolled out. For the purpose of this study, improvements were also made, to see if the website traffic increases after following Google Algorithms' best practices.

II. OBJECTIVES

- To understand the significance of understanding major algorithm updates to digital marketers and SEO experts in suggesting better strategies and improving organic traffic.

III. SCOPE & RESEARCH METHODOLOGY

The website traffic of a test website was monitored through Google Analytics. Improvements were conducted on this website, and observations were made in overall and referral traffic during and after the Google Algorithm update. The scope of this research extends to a few important algorithm updates rolled out by Google.

For this research paper, various secondary sources like the previous research papers were studied to make necessary observations and conclusions. To show the impact on website traffic and rankings, it was important to study the important timelines in algorithm update history and highlight the necessary observations (about the impact) made in other research papers in the past. However, for recent algorithm updates, such as the Page Experience Update rolled out in 2022, and the Broad Core Update rolled out in May 2022, the traffic of a test website was monitored through Google Analytics.

A. SEO AND WEBSITE TRAFFIC

Research conducted by Buildd.co in the article titled "Myntra's SEO Strategy", shows the revenue generated by Myntra through SEO. By using a popular tool called SEMrush which is used by most SEO experts, Buildd.co saw that Myntra alone steals 43.8M organic website traffic each month. Another source called Similar web showcases the traffic analytics and market share of Nike. Nike gets over 140.6M organic traffic on their website with 45.51% searches made by women, and the remaining 54.49% made by Men on search engines. Analysing Myntra and Nike website showcases the need for SEO, done according to search engine, by considering algorithm factor, and giving heavy importance to user friendliness.

Search engine optimization (SEO) is an activity that deals with optimizing web pages, or website to make them search engine friendly, with an aim to get better website traffic. Here, changes on websites are made (on-page and off-page) to improve quality of rankings and traffic. Getting traffic from users who use search engines to find certain information, product, or a service is important to a website (Ankalkoti, 2017). The importance of search engine optimization in marketing of a company stems from the fact that the upcoming generation is becoming internet savvy, and it relies on search engines like Google for accurate information, online shopping, or hiring services.

ON-PAGE: On-page SEO includes writing valuable content, using relevant keywords, proper keyword placement, and writing an accurate title to each web page.(Ankalkoti, 2017)

OFF-PAGE: Off-page SEO includes improving the referral base of a website by generating backlinks. It may include link building on relevant sites with high DA through guest posting, directory submissions, and more.(Ankalkoti, 2017)

According to Shravan Kumar Upadhayay, 2015, the prime objectives behind using SEO tactics for a business, includes improving rankings of website or web page, increasing website traffic (specifically organic traffic), or generating conversions for a business(Shravan Kumar Upadhayay, 2015) (Conversions may include leads, or achieving any other goals tracked via Google Analytics).

Dr. S. Bhavani in her study and analysis of search engine optimization states that website traffic is the number of visits a particular website gets through their desktop, tablet, or mobile (Dr. S. Bhavani, 2020). Website traffic can be organic, paid, direct, or referral. Organic traffic is when a user searches for a particular keyword and clicks on your website. Direct traffic is received when someone searches for a particular brand through a search engine (branded keyword). When an advertiser pays certain fees for his website to be clicked, that traffic is called paid traffic.

B. ALGORITHM IN THE PAST AND REASON BEHIND ITS UPDATES

According to research carried out in December 2013, some of the traditional SEO practices are still prevalent including inorganic link building (paid links), keyword sculpting, competitor audits, and site architecture. However, effective SEO today must focus on meta tags, page speed load, user experience, and keyword portfolio. This research also emphasized the needs of the digital world such as use of mobile, desktop, as well as tables to access internet, which has given a new era to SEO, whose core attention now is user experience, and less on search engine. (Manish Maheshwari, 2013).

While optimizing search engine, digital marketers found deceptive ways to improve the rankings. These deceptive methods gave pathway for spam websites to gain traffic and hamper the surfers experience on Google. Ankalkoti 2017 noted the black hat SEO tactics (deceptive practices), and Grey Hat SEO Tactics followed by SEO experts to gain traffic and rankings. He noted the following tactics which are considered bad SEO practices that were used to boost website performance in the past.

- Attempting to improve website traffic by using deceptive tactics disapproved by Google.
- Redirecting users to a different page, than the one ranked by search engines.
- Showing a particular version of a page to crawlers, and another version to human visitors (Cloaking SEO Tactic)
- Hiding text with a background colour or within an HTML code or by using a tiny font size
- keyword stuffing (in meta tags) or using keywords unrelated to the website content.
- Keyword stuffing (in page) to raise the keyword count, variety, and density of the page.
- Creating a copy of a popular website with similar content, which redirects surfers to unrelated or malicious websites.
- Buying backlinks of domain DA website, or buying paid guest posts from high DA websites

- Exchanging links with websites to improve the backlink count and rankings (Ankalkoti, 2017).

These black hat or grey hat SEO tactics started succeeding in improving rankings and website traffic. Along with it, user experience was affected, the result of which was Google announcing a war against artificial link building, and PageRank(Manish Maheshwari, 2013). This is when major changes in algorithm were made, whose updates later became a headache to SEO experts.

Initially, in the year 2000, the very first algorithm update considered counting link votes and then deciding the most relevant pages. This determined the search results for a search query. However, in the later updates- anchor text, backlinks analysis, content duplicity, inbound links, and more were given importance. A few recent updates have an emphasis on user experience on mobile and desktop versions, product reviews, and content on the website.

C. HUMMINGBIRD ALGORITHM UPDATE

Shravan Kumar Upadhayay 2015 conducted in-depth research on Hummingbird Update rolled out in 2013. According to him and most other researchers, Google often informs marketers about specific updates. However, the rest is kept confidential. These updates are only available to explain the functioning of search engines, the rest is what Shravan calls a "black box". This fact is true, and it goes to say how important algorithm is in matching users with websites. Google Algorithm is often updated every day, However the Hummingbird update in 2013 was significant, as it caused a stir among digital marketers and the rest of the industry.

The hummingbird algorithm update rolled out by Google helps the search engine to understand phrases precisely, and match results to complex search queries (Shravan Kumar Upadhayay, 2015). This update emphasized understanding the user's intention behind searching a query, to match them only with relevant results (Shravan Kumar Upadhayay, 2015). Here, a search query could be a question or exploration of a product or service. Before this, Google would match web pages according to keywords. However, this update gave core to semantic words, which enable websites not targeting specific keywords to show up in ranking, if they are relevant to that search query. According to Muhammad Ismail 2014, because of inactive semantic ordering, co-occurring terms, and equivalent words, the Hummingbird algorithm allows a webpage to rank well for a search query regardless of whether the correct keyword phrase is entered by the searcher or not(Muhammad Ismail, 2014).

Impact: This update focused on some 200+ factors that can affect a websites' ranking and traffic. After rolling out of Hummingbird update, the impact on website performance was huge, as almost 90% searches had been affected. It caused major fluctuations and volatility on search engine, which gave search engine experts a challenge to improve their website rankings and traffic back up. However, SEO experts were able to understand this change, and they updated their strategies to include more informative content on their websites (Shravan Kumar Upadhayay, 2015). This enabled them to incorporate semantic keywords on the web page, which is a tactic that has worked for marketers still to this date. This is just an example of how digital marketers, after studying algorithm updates, can make necessary changes to boost website traffic and rankings.

D. PANDA ALGORITHM UPDATE

Google, to not rank websites that use black hat SEO tactics launched panda algorithm update on 24 February 2011. Vishal in his blog post titled "Panda 3.9 Strikes: How to Spot Black-Hat SEO Techniques" speaks about the repercussions of following deceptive practices due to the Panda update. In the blog post, he quotes- "Prior to the Panda 3.9 update, Google issued a warning for site owners who break search engine guidelines to take action sooner rather than later, yet another reminder of how we are all at the mercy of this web giant."

According to Wikipedia, Google Panda Algorithm Update aimed to lower the rank of "low-quality sites" or "thin sites", in particular, "content farms", and return higher-quality sites near the top of the search results." Here, the interpretation of content farm according to Wikipedia's definition means that it is a type of content used by certain websites, generated by freelancers, or similar sources written for search engines, and does not provide value to users.

According to Roohi Ali in a research paper states that the first-ever initiative taken to target content deemed "thin" or "not good enough" was by releasing the panda update by Google. As per the aim, panda algorithm update filters out the rank sites containing thin content, generated through content farms, sites having high ads-to-content ratio, affiliate websites, doorway websites, and other similar quality issues(Ashish Chandra, 2015).

Google went further and beyond by providing a list of 23 bullet points, that answers the question "What counts as a high-quality site?". This blog post helps webmasters "step into Google's mindset", as per Wikipedia. Finally, due to the impact of the Panda update in filtering out spam low-quality sites, it has been incorporated into Google's core algorithm since the year 2015. The last slow roll-out of Panda 4.2 update was in July 18, 2015.

Impact: Panda algorithm update benefited the news websites, and social networking sites, as a surge in the ranking of websites in this industry was reported by CNET. The pure reason behind it was the importance given to helpful content due to this update. On the other hand, many websites containing a large number of advertisements (higher ads-to-content ratio) saw a major drop in traffic and rankings. The impact was reported to be almost 12 percent of all search engine results. (Wikipedia). Furthermore, complaints were filed against scrapers/copyright infringers on Google's webmaster forum, as these infringers were getting better rankings rather than the sites publishing original content. Following this, Google publicly requested data points to aid in the detection of scrapers. (Wikipedia).

According to Roohi Ali in her research on Investing the effect of Panda algorithm into SEO states that SEO is becoming more difficult to plan. High-quality businesses and blogs are gaining better rankings, whereas spammers are falling behind. This trend should continue as Google appears to be winning the war on spam, with regular updates to the

Panda and Penguin algorithms filtering out more and lower quality sites.(Manish Maheshwari, 2013).

The only way SEO experts can update and gain better rankings and traffic is by using high-quality content, and high-quality backlinks (link-building activities) for better survival amidst the regular algorithm updates on Google.

E. BROAD CORE UPDATE IN MAY 2022

Search Engine Journal, a credible website that offers insight into all changes concerning search engines, says that Google announces core updates a few times a year, designed to assess content better, and provide better results. According to Google Search Central Blog, "Core updates are designed to increase the overall relevancy of our search results and make them more helpful and useful for everyone". It was further stated on the blog that broad core updates may bring a drop or gain in traffic to websites. However, specifics about this core update were not announced by Google, which leaves the nature of this update unknown to webmasters.

Impact: Search Engine Journal used SEMrush Sensor data and the Sistrix visibility index to determine which industries were positively and negatively affected by the broad core update in May. Retail brands such as Amazon, eBay, and Etsy benefited from the May Broad Core Update, as did video brands such as YouTube, TikTok (overall gain of 133%), Disney Plus, Hulu, and Twitch. However, Sistrix discovered a general loss for most news and media publishers after analysing 30 news websites. It also had a significant impact on generalists who write about celebrity news, sports results, weather, the economy, and career advice. (Search Engine Journal, 2022).

IV. CONCLUSION

The focus of marketing for a brand is to always stay at the forefront of customers' minds whenever the need for our product generates. The same is true for search engine optimization, where the only difference is that we try to achieve this by staying on the first page of search results.

From the data presented in this research paper, we can see that Google Algorithm helps us to stay on that first page, only if we follow search engine best practices. There are webmasters who use loopholes to gain rankings and traffic, but the chances of gaining results this way have reduced, thanks to Google's Algorithm that keeps updating every day.

Similar to traditional marketing, where we try to keep up with changes in external factors, the same is true in digital marketing. The only difference is that we must keep up with current trends, customer preferences, and algorithm updates. Because the algorithm is frequently tweaked to provide users with relevant results based on their queries, our SEO tactics should be updated to reflect these changes. To prove this, we can see from this study that a change in algorithm can have an effect on our marketing strategy. And we can also see how making improvements following search engine best practices can help us improve it.

Thus, to conclude, we can say that it is quintessential to learn about Google Algorithm, follow its best practices, and stay updated with its current changes. As that is the only way for us to gain an advantage in the industry, and it also helps our brand keep standing, despite the external factors of digital marketing.

V. Acknowledgments

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