

Evolution of Search Engine Optimization and Investigating the Effect of Panda Update into it.

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Abstract— while looking at the journey of The Evolution of SEO. From the early 1990's search consultant to revenue based strategies now, website owners realizes that having highly visible sites in the search engines brought valuable business results. In the past couple of years alone, the idea of gaining higher rank, which brought higher visibility, would drive increased traffic. These connections, tied with search engine technology, dawned to the industry of SEO. As SEO started to become a lucrative business, SEO strategies have changed immeasurably over the past decade. And search personalization, constant changes to the Google algorithm, the rise of social media and the demise of Yahoo have been major game changers. According to MozCon, "SEO" conference held in every July by company MoZ (SEOMoz) states that "The concept of SEO is radically changing, as is the industry as a whole. Thus, Search Engine Optimization no longer exists. In its place is Search Experience Optimization which encompasses a much vaster array of talents". Well it means traditional SEO is dead, as Panda update 28.4 is coming next, Google's going to take over the world again as throughout the evolution lifecycle of SEO.

Index Terms— Content market, horizontal search, link analysis ,on-the-page factors, off-the-page factors, Online PR strategies, PRISM, , Panda Update,Penguin Update, Social Media, vertical search.

1 INTRODUCTION

The Evolution of search engines is of constant change. As evident from history, before we can understand where it's going, we must understand where it's been. SEO used to be simple; it was all about HTML code. But search engines have grown, and SEO has grown with it. Today, search engine algorithms are a complex cocktail of ranking signals: domain authority, links, local signals, social signals, site quality and more. As a result of which the number of online users are increased widely.

It is well known that search engine gains widespread popularity and it is evident from the statistics and figures that showcase the increased number of internet users as now the world's online working is suffering from web mania. According to the Internet world Stats, Internet users estimated for June 30, 2012 the figure given below elaborates the number of Internet users by 2012 and the ratio is increasing by far.

Therefore in the very first section this paper takes a look at some of the major events that have shaped the SEO industry over the past decade according to the Danny Sullivan of Moz-Con [7]. What the question arises today is that, is the evolution of search, trademark Google? And the answer will obviously No, they don't own search. But apparently the answer is Yes, as we see the domination of Google throughout the process of evolution of search right from the Search 2.0 to till date.

This paper takes a look at how search engines have evolved over the past decades and how SEOs had fight to rank their websites in those greatly desired top positions. It also investigates the broad future of search as well as discussing the paradigm shift that Google is pioneering by forcing us to rethink what search in the digital sphere actually means.[12]

So where is search going? How will the rise of mobile push the nature of search to evolve even further? [3].

2 EVOLUTION OF SEARCH: FROM SEARCH 1.0 TO WHAT SEARCH TODAY

2.1 Search 1.0

There was a time when Google was neither the policy maker nor in the scene of searching canvas, which brings us to Search 1.0. Alta Vista, Lycos, and WebCrawler, OpenText, and Magellan these were search engines that existed before Google, went out onto the web and crawled up all the pages, about a dozen pages that existed at the time, and then do searches and try to find how to rank them all up determined by just the words that were out on the page. So if you wanted to rank well, you would put something (game, sitename) on your page 100 times in a row. Then if somebody else wanted to outrank you, they'd put on their page 150 times in a row that thing, because a search engine think relevancy is all about the number of words of the page, and a little bit about the location of those words. The words at the top of the page would count for a little bit more than if they were further on down below. Bottom line is this was pretty easy to spam. They needed to come up with a better signal.

2.2 Search 2.0

They weren't making a lot of money off of search so they really didn't pay attention to it. But Google come up with this idea, and that brought us into Search 2.0. It started looking at things that we refer to as off-the-page ranking factors, as all of the on-the-page stuff was in the complete control of the publisher. There was a time, when Infoseek was used, where a web page can be submitted, and it was instantly added to the index, and well ranked. It can be instantly changed and put it back out again and move up that way. So off-the-page is go and get some recommendations from beyond the publisher and decide what other people think about these web pages, because maybe that's less spam able and would give us better

quality search results.

By the way, Yahoo is not used here, because it's about crawler-based search engines (use automation to go out and find web pages). Yahoo for the longest time - was a directory or a human-based search engine where they listed stuff i.e. went to a website, wrote up a review, and added it. During Search 2.0, Google started using link analysis. **Direct Hit** an off-the-page stuff was also came into existence.

2.3 Search 3.0

We have Search 3.0 eras begun, even though we were using links mentioned in search 2.0 and we were getting better quality results, it fetches so much information in that the signals alone weren't enough. Therefore another way is needed to get more relevancies, and the way the search engines started doing it. Instead of having to search through 100 billion pages, let search through a smaller collection of pages of just focused content. That's called vertical search.

Now in horizontal search, to do a search for things like news, sports, entertainment, shopping, and just throw it all into one big search box. It goes out there, and it tries to come back with all the pages from across the web that it thinks is relevant to whatever you searched for.

That's important to specify about PRISM. It's a spy or an eavesdropping program or a data mining program, depending on who want to use, running by The US government used to filter light, and so if it is doing a search and trying to get information about filtering light, probably don't want to turn to a news search engine because right now the news stuff is full of the PRISM stuff, it won't get all of the other stuff that is not necessarily related.

2.4 Search 4.0

Search 4.0 is a kind of a return to what Yahoo , one of the biggest things that has happened with search engines is that in a very short period, it was completely changed how to sought out information. For thousands of years, in order to know something, asking to a human being is the common way. Even in a library and we would ask a librarian .Therefore the trend is turned to human beings or things that were written by human beings.

Search 4.0 is started looking searching in a more interconnected way using the history that's present there. While searching looking and knowing about your location was the latest feature this reign search engine exhibits.

Another important and most widely accepted feature that search 4.0 introduces was, really exciting the use of social and the idea of links, using them like votes. In order to vote in this kind of system, do like it on Facebook, plus it on Google+, make a recommendation on Yelp, use any one of the number of social systems that effectively enable people to vote much more easily. These social signals are very, very important in the future as to how the search engines will determine what the best pages that are out there are.

Unfortunately, the whole link system is overcrowded with

the assessment and their complexities of figuring out which is a good link, a bad link, a link that will not be followed, a link that must be followed, and so on, and need to work on making all this social stuff better into the future. Whole Search 1 through 4 is discussed above now what is coming after that?

2.5 Search 4.0

Next that will be expected to happen is, Search 5.0 where there's no page at all. There were on-the-page factors, off-the-page factors, which are really off this page but on some other page, this stuff isn't even care that it's a page. There was a blog post, and one can't remember the title of it. But in "Google conversational search," one can find it.

In the conversational search, if you have Chrome and you click on the microphone, you can talk to Google now on your desktop, just like using a phone. You can ask and Google will come along and it will show you results and it will talk back to you. It gives you a little box for him, and it appears and there is a little description they pull from Wikipedia. But you should Google it and use that voice search thing.

To do all of that it has to understand that when you searched, it wasn't just these letters on a web page. It had to understand that it may be a person, that is an entity(person, place, or thing), a noun, but an entity, that there is a thing out there that it can link up to and know about. That is much different than Search 1.0 where, when searching, was really just looking for letters on a page.

3 SEO TO SEARCH STRATEGIES: OLD TRADITIONAL APPROACHES TO ALL NEW ONCE

While traditional SEO practices are still prevalent today, the needs of Digital world such as the use of mobile, smart phones and social media influences widespread the working culture of online world have given rise to a new era of SEO that is much more focused on the overall user experience, and less on the search engine itself. However the table given below in the next section would give a periodical glance of Year ly SEO evolution.

Some of the older SEO techniques focused on site architecture, inorganic links, competitor audits, on-page keyword sculpting and programming. Effective SEO today should focus on diverse keyword portfolios, compelling Meta data, site load speed, and user interface and user experience.

While now moving towards the new approaches the goal is shifted towards "instead of optimizing for search engines, SEOs must now optimize for people". And the following approaches came into existence [10]

- Content marketing is the keystone of today's SEO. Publishing the right content in the right place at the right time makes for relevant marketing helps to attract visitors. It's this type of content Google and the other search engines want to feature in their search engine results pages.
- Social media provides a platform for brands to drive brand awareness and community engagement. The

social sharing helps the search engines determine a brand's relevance.

- Online PR strategies help brands naturally earn links, online media coverage, media relationships, guest articles and syndication. An effective digital PR campaign can help brands earn their marketplace's undivided attention - and the search engines will notice, too.

Searching via Google (or Bing or Yahoo, etc.) has, in the past, meant typing in a question or a topic and getting a list of articles that attempt to answer your specified question. You'd find your answer and then get out of the search engine.

But now the rise of mobile is on boom. According to eMarketer's [9] over 95% of US millennial will own a mobile phone by the end of 2013, and of that 95%, three quarters will have Smartphone[9]. Google know that digital is becoming more and more mobile.

4 THE EVOLUTION OF SEARCH ENGINE OPTIMIZATION

TABLE 1
EVOLUTION OF SEARCH ENGINE OPTIMIZATION.

When	Evolved Techn.	Description
1945	Hypertext	The concept of hypertext and a memory extension actually came to existence in July, when Vannevar Bush's proposed the idea of a virtually limitless, fast, reliable, extensible, associative memory storage and retrieval system capable of making and following links between documents on microfiche and named the photo-electrical-mechanical device as memex.
1960	SMART NLS	Gerard Salton, who died on August 28th of 1995, was the father of modern search technology. His teams at Harvard and Cornell developed the SMART (Salton's Magic Automatic Retriever of Text) informational retrieval system. Included important concepts like the vector space model, Inverse Document Frequency (IDF), Term Frequency (TF), term discrimination values, and relevancy feedback mechanisms. Doug Engelbart prototypes an "oNLine System" (NLS) which does hypertext browsing editing, email, and so on. He invents the mouse for this purpose.
1963	Xanadu	Ted Nelson created Project Xanadu in 1960 and coined the term hypertext in 1963. His goal with Project Xanadu was to create a computer network with a simple user interface that solved many social problems like attribution; much of the inspiration to create the WWW was drawn from Ted's work.
1967	HESys	Andy van Dam and others build the Hy-

	FREES	pertext Editing System and FRESS.
1980	CERN EN-QUIRE	While consulting for CERN June-December of 1980, Tim Berners-Lee writes a notebook program, "Enquire-Within-Upon-Everything", which allows links to be made between arbitrary nodes? Each node had a title, a type, and a list of bidirectional typed links. "ENQUIRE" ran on Norsk Data machines under SINTRAN-III.
1990	Archie	May: The first search engine created was Archie ("archives) in 1990 by Alan Emtage, a student at McGill University in Montreal. Essentially Archie became a database of web filenames which it would match with the user's queries. September: Mike Sendall, Tim's boss, Oks the purchase of a NeXT cube, and allows Tim to go ahead and write a global hypertext system. October: Tim starts work on a hypertext GUI browser editor using the NeXTStep development environment. He makes up "WorldWideWeb" as a name for the program. November: Initial WorldWideWeb program development continues on the NeXT (TBL). This was a "what you see is what you get" (wysiwyg) browser/editor with direct inline creation of links. The first web server was nxoc01.cern.ch, later called info.cern.ch, and the first web page http://nxoc01.cern.ch/hypertext/WWW/TheProject.html Unfortunately CERN no longer supports the historical site December: Line mode browser and WorldWideWeb browser/editor demonstrable. Access is possible to hypertext files, CERNVM "FIND", and Internet news articles.
1991	Veronica & Jughead File Transfer Protocol	Veronica & Jughead With the success of Archie, the University of Nevada System Computing Services group developed Veronica same as Archie, but worked on plain text files. Soon another user interface Jughead appeared with the same purpose as Veronica; both of these were used for files sent via Gopher, which was created as an Archie alternative by Mark McCahill at the University of Minnesota in 1991. File Transfer Protocol There was no World Wide Web at that time people shared data via File Transfer Protocol (FTP) using a FTP server and for retrieving the data using a FTP client. This process worked effectively in small groups, but the data became as much

		fragmented as it was collected.
Aug 1991	Tim Berners-Lee & the WWW: WWW NeXTS TEP httpd	Tim Berners-Lee & the WWW CERN (Center European Nuclear Research) was the largest Internet node in Europe, and Berners-Lee saw an opportunity to join hypertext with the Internet. In his words, "I just had to take the hypertext idea and connect it to the TCP and DNS ideas and – the World Wide Web". He used similar ideas to create the World Wide Web, for which he designed and built the first web browser and editor (called WorldWideWeb and developed on NeXTSTEP) and the first Web server called httpd (HyperText Transfer Protocol daemon). The first Web site built was at http://info.cern.ch/ and was first put online on August 6, 1991.
Dec 1991	SLAC	Paul Kunz installs first Web server outside of Europe, at SLAC.
1992	Line mode	Line mode browser release 1.1 available by anonymous FTP. Line mode v 1.2 announced on alt.hypertext, comp.infosystems, comp.mail.multi-media, cern.sting, comp.archives.admin, and mailing lists.
Feb 1993	Excite VLib NCSA	Excite Came from the project Architext, which was started by in February, 1993 by six Stanford undergrad students with the idea of using statistical analysis of word relationships to make searching more efficient. Web Directories: VLib When Tim Berners-Lee set up the web he created the Virtual Library. NCSA release first alpha version of Marc Andreessen's "Mosaic for X".
June 1993	World Wide Web Wanderer	World Wide Web Wanderer Soon the web's first robot came. In June 1993 Matthew Gray introduced the World Wide Web Wanderer to measure the growth of the web and created this bot to count active web servers. He soon upgraded the bot to capture actual URL's. His database known as the Wandex.
Oct 1993	ALI-WEB Robots Exclusion Standard	ALIWEB In October of 1993 Martijn Koster created Archie-Like Indexing of the Web, or ALIWEB in response to the Wanderer. Robots Exclusion Standard Martijn Koster also hosts the web robots page, which created standards for how search engines should index or not index content.

Dec 1993	PWS: Jump Station WWW RBSE	Primitive Web Search By December of 1993, three full fledged bot fed search engines had surfaced on the web: JumpStation, the World Wide Web Worm, and the Repository-Based Software Engineering (RBSE) spider.
Jan 1994	EINet Galaxy	EINet Galaxy The EINet Galaxy web directory was born in Jan 1994. It was organized similar to how web directories are today.
April 1994	Yahoo! Directory	Yahoo! Directory In April 1994 David Filo and Jerry Yang created the Yahoo! Directory as a collection of their favorite web pages. As their number of links grew it reorganize and become a searchable directory and the inclusion rates for listing a commercial site increased.
April 1994	WebCrawler	WebCrawler Brian Pinkerton of the University of Washington released WebCrawler on April 20, 1994. It was the first crawler which indexed entire pages. AOL eventually purchased WebCrawler and ran it on their network
July 1994	Lycos	Lycos Lycos was the next major search development, having been design at Carnegie Mellon University around July of 1994. In October 1994, Lycos ranked first on Netscape's list of search engines by finding the most hits on the word 'surf.'
1994	AltaVista	AltaVista AltaVista debut online came during this same month. AltaVista brought many important features to the web scene. After Yahoo! bought Overture & rolled some of the AltaVista technology into Yahoo! Search, use AltaVista as a testing platform.
1995	Looksmart WiseNut	Looksmart was founded in 1995. They competed with the Yahoo! Directory by frequently increasing their inclusion rates back and forth.
May 1996	Inktomi	Inktomi The Inktomi Corporation came about on May 20, 1996 with its search engine Hotbot. In October of 2001 Danny Sullivan highlights how Inktomi accidentally allowed the public to access their database of spam sites, which listed over 1 million URLs at that time.
Jan 1996	BackRub	By January of 1996, Larry and Sergey had begun collaboration on a search engine called BackRub, named for its unique ability to analyze the "back links" pointing to a given website.
1997		Then in 1997, Excite bought out

		WebCrawler, and AOL began using Excite to power its NetFind. WebCrawler opened the door for many other services to follow suit. Within 1 year of its debuted came Lycos, Infoseek, and OpenText.
April 1997	Ask.com	Ask.com (Formerly Ask Jeeves): In April of 1997 Ask Jeeves was launched as a natural language search engine. Ask Jeeves used human editors to try to match search queries.
1998		In 1998, Google was launched. Sergey tried to shop their PageRank technology, but nobody was interested in buying or licensing their search technology at that time.
1998	Open Directory Project	Open Directory Project In 1998 Rich Skrenta and a small group of friends created the Open Directory Project, which is a directory which anybody can download and use in whole or part. Netscape bought the Open Directory Project in November, 1998.
1998	LII	LII Google offers a librarian newsletter to help librarians and other web editors help make information more accessible and categorize the web. Librarians' Internet Index. LII is a high quality directory aimed at librarians.
1998	Business.com	Business.com Business.com is a directory of business websites.
1999	AOL	In 1999 AOL selected Google as a search partner, and Yahoo! followed suit a year later.
May 1999	AllTheWeb	AllTheWeb AllTheWeb was a search technology platform launched in May of 1999 to showcase Fast's search technologies. They had a sleek user interface with rich advanced search features.
1998	Meta Search Engine, Vertical Search	Meta Search Engines Most meta search engines draw their search results from multiple other search engines, then combine and rerank those results. Vertical Search The major search engines are both Yahoo and MSN have question answering services where humans answer each other's questions for free. Google has a similar offering, but are paid for their work. They are also fighting to become the default video platform on the web, which is a vertical where an upstart named YouTube also has a strong position.
1998	Overture	Overture (Formerly GoTo) Overture, the pioneer in paid search, was

		originally launched by Bill Gross under the name GoTo in 1998. His idea was to arbitrage traffic streams and sells them with a level of accountability.
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5 THE EVOLUTION OF SEO WITH GOOGLE EYE

Sighting into the past it is evident that SEO is having one of the dynamic ecosystems as far as evolution is concerned, and the share is largely due to Google's regular search algorithm updates.

The past, present and future of SEO industry are revolving around Google. Every now and then Google has to change its strategies as to updates its search algorithm because to combat poor quality content and minimize the use and effectiveness of keywords. And due to its widespread influence SEOs have no choice but to evolve and adapt, or risk failure to deliver. And, this trend will likely to be continued.

According to the forward-thinking article by Guillaume Bouchard on Search Engine Watch, he says:

"I want to suggest that Google is straying from being solely a place to search - they're evolving into an area you can explore."

It means Google is forcing us to think about what the term "search" fully encompasses. The Google events that have influenced the SEO industry over the past decade are summarized as under [10]. As the pioneer and the most controversial influencing king of the online searching world is now 10 years old and that is no other than the great Google. It's time to review how SEO for Google evolved over the years. The table given below shows the same [6]:

TABLE 2
 EVOLUTION OF GOOGLE SEO AND ITS EVENTS TIMELINE.

When	Google Events
1995:	Larry Page and Sergey Brin meet at Stanford.
1996:	Larry and Sergey begin collaborating on a search engine called BackRub
1997:	Google.com is registered as a domain on September 15.
April 1998:	Larry launches a monthly "Google Friends Newsletter".
August 1998:	the Google launched its first doodle
September 1998:	Google sets up workspace in a garage on Santa Margarita Ave., Calif.
December 1998:	Google listed as the search engine of choice in the Top 100 Web Sites 1998.
June 1999:	Our first press release announces a \$25 million round from Sequoia Capital.
April 2000:	MentalPlex: Google's ability to read your mind as you visualize, launched.
May 2000:	First 10 language versions, doodle series of Google.com are released .
October 2000:	Google also launched their popular Google AdWords.

Dec 2000:	Google Toolbar is released.		devices was launched.
Feb 2001:	Add search and browse features and launch it as Google Groups .	June 2008:	Google Map Maker launches.
July 2001:	Google Images launched.	July 2008	First downloadable iPhone app, enabling quicker mobile searching
Dec 2001:	Google launches its first Zeitgeist.	Aug 2008:	Google Suggest (later called Autocomplete) arrives on Google.com
Feb 2002:	First Google product for enterprises is released: the Google Search Appliance	Sep 2008:	Google Chrome becomes available for download.
Apr 2002:	Release the first set of Google APIs, enabling developers	Nov 2008:	Release Google Flu Trends, an indicator of flu activity.
May 2002:	Release Google Labs.	Feb 2009:	Launch Voice Search on Android
Sep 2002:	Google launched its Google News	Mar 2009:	Release Google Voice , Google Ventures
Dec 2002:	Google Froogle (for online shopping) was released.	Sep 2009:	Introduce the DoubleClick Ad Exchange
Feb 2003:	Google launches its Google AdSense and Hilltop algorithm.	Oct 2009:	Google Maps Navigation
Apr 2003:	launch Google Grants – the nonprofit edition of AdWords	Jan 2010:	Google Crisis Response formed , a team that responds to global disasters
Dec 2003:	launch Google Print (now known as Google Books).	May 2010:	Google TV is built on Android & Chrome.
Jan 2004:	launch Orkut , in its heyday the most important social network	Sep 2010:	Google Instant shows
Mar 2004:	Google launched Google Local(business listings, maps, and directions)	Dec 2010:	Google and Bing admit to using social signals. YouTube launches trueview.
Apr 2004:	Google launched Gmail and Official Google blog.	Feb 2011:	Google launches its Panda update , which targets poorly written content that pollutes organic search engine results. This was the first successful attempt to understand content quality algorithmically.Google Art Project is launched.
Oct 2004:	Google Book Search and Google Earth was released.	Mar 2011:	New +1 button for social publicity.
Nov 2004:	Google Scholar was launched.	May 2011:	First Chromebooks with Samsung & Acer
Dec 2004:	establish Google.org	July 2011:	AdWords Express is launched.
Feb 2005:	Google Maps was launched.	June 2011:	Google+ social media platform and Author Rank was released.
Mar 2005:	Google Analytics was released.	Aug 2011:	Offline access to Gmail, Calendar and Docs for people using Chrome
Apr 2005:	Google Maps comes to mobile phones	Nov 2011:	Google releases Caffeine update “Freshness,” which gives higher priority to newer, more relevant content. Although the original Caffeine update was launched in 2010, it simply crawled available content in search results faster, and did not significantly affect the SEO industry.
June 2005:	Google Mobile Web Search , Google Maps API are released	Feb 2012:	Chrome launches on Android
Aug 2005:	Google Talk launched. Google files patent for Agent Rank.	Mar 2012:	Android Market becomes Google Play.
Sep 2005:	Google Blog Search was released.	Apr 2012:	Google unveils its Penguin update , which targets site-wide links as well as links from low-quality websites. It focuses on quality references rather than counting the number of links. Google Drive launched.
Nov 2005:	Google Base was released.	May 2012:	Hangouts On Air and Knowledge Graph in Search become available
Dec 2005:	Gmail for mobile.	June 2012:	Announce Google Now.
Jan 2006:	Google Video and Radio ads were released.	Oct 2012:	Google Crisis Response with Public Alerts.
Mar 2006:	Office Productivity Software, Google Finance was released.	Nov 2012:	Google Fiber ultra-high speed Internet access.
Apr 2006:	Google Calendar, Google Translate was released.	Dec 2012:	YouTube Space LA is a new facility run by the Next Lab was available now.
May 2006:	Google Trendz launched.	Feb 2013:	Introduces enhanced campaigns, which updates AdWords.
June 2006:	Google Checkout, Google Wallet was released.	Apr 2013:	Release of Google Now for iPhone and iPad.
Aug 2006:	Google Apps Premier Edition,		
Sept 2006:	Google News Archive Search released.		
Oct 2006:	Google bought YouTube. Launches Apps for Education and Apps like Docs & Spreadsheets		
Apr 2007:	the Gmail Paper Archive and TiSP (Toilet Internet Service Provider)		
May 2007:	Google Universal Search was released.		
Sept 2007:	New application for making slide presentations to Google Docs.		
Nov 2007:	Android – the first open platform for mobile		

May 2013:	Imagery of the Earth , Photos, Hangouts.
June 2013:	Funded by Google, NL investigates the energy impact of cloud computing.
July 2013:	Updated Google Maps app for Smartphone and tablets.
Sep 2013:	Android passes 1 billion device activations.

Google's corporate history background, starting from when Larry met Sergey at Stanford in 1995. By January of 1996, they had begun collaboration on a search engine called BackRub, named for its unique ability to analyze the "back links" pointing to a given website. Larry took on the task of creating a new kind of server environment that used low-end PCs instead of big expensive machines. A year later, their unique approach to link analysis was earning BackRub a growing reputation. BackRub ranked pages using citation notation, a concept which is popular in academic circles. On the web, links act as citations. In the PageRank algorithm links count as votes. Your ability to rank and the strength of your ability to vote for others depends upon your authority: how many people link to you and how trustworthy those links are.

6 THE ROLE AND EFFECTS OF GOOGLE UPDATES IN SEO ECOSYSTEM EVOLUTION

6.1 Over all Google Updates till now

Each year, Google changes its search algorithm so many times. While most of these changes are minor, every few months Google rolls out a "major" algorithmic update that affects search results in significant ways. For search marketers, knowing the dates of these Google updates can help explain changes in rankings and organic website traffic. Here, we've listed the major algorithmic changes or updates that made the biggest impacts on SEO Industry.

TABLE 3
GOOGLE'S UPDATES DURING EVOLUTION OF SEO.

Update	Year	Explanations
Florida Update	2003	Webmaster Communication Since the Florida update in 2003 Google has looked much deeper into linguistics and link filtering. Google's search results are generally the hardest search results for the average webmaster to manipulate.
Vince Update	2009	Increasing the Rate of Algorithmic Change. In 2009 Google did an update named the "Vince" update, which placed weight on search query chains, and had the net effect of promoting larger branded websites.
Panda Update	2011	In 2011 Google rolled out their Panda algorithm in an attempt to make it harder to pour low quality content into well linked sites, by allowing the weaker pages to pull down the sites as a whole. Panda targeted low quality sites with thin content, scraped text etc. Site wide penalties were introduced, instead of just the page being penalized.

Penguin Update	2012	In 2012 Google announced the Penguin update aimed at making search spamming harder. In 2012 they also rolled out tighter anchor text filters, an algorithm to penalize ad heavy sites, and launched a ranking factor based on how many valid requests there are against a site. This has caused many SEO professionals to chase after servicing large corporate clients, as talent tends to follow the money.
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As Google announced war against artificial link building, and pagerank, SEOs started looking at things they could do on site to increase the ranking power of their key pages. The key was that if your website has a certain amount of pagerank to pass around your site, then you could creatively use the no-follow attribute to control the flow of pagerank around your site. Certainly you wouldn't want to be passing pagerank to pages like your privacy policy, returns etc. That was until Google changed the algorithm in 2009, so that the total pagerank was divided between all links, regardless of whether they had the no follow tag or not.

The techniques of link exchanging and some of the black hat methods of SEO, such as link farms etc, was already prevailed in building backlinks of article marketing. Unfortunately, this started to be abused and low quality articles were being introduced in mass for the sole purpose of gaining links. The search results were also filling up with duplicate versions of the same article, which were constipating results. Therefore, the first step Google took to counter this was around 2004, when they started to filter out duplicate content. Effectively, only the original source of the content would rank (or sometimes the one with the highest pagerank). This was a logical step as in Google's eyes as once it had provided access to the information there was no requirement to list the same content again.

Collateral damage was caused to a great deal of ecommerce sites at the time of these updates. As original content was now required to rank a page, the horrible practice of article spinning become commonplace. The first Panda update was introduced and Spun articles started to litter the web and once again Google's results were compromised.

For the last couple of years two of the Google algorithm updates have struck fear into the hearts of webmasters the world over and the way it effect the web contents and strategies are important.

- Panda (2011) - mainly effects low quality sites with thin content, scraped text etc. Site wide penalties were introduced, instead of just the page being penalized.
- Penguin (2012) -mainly effects spam SEO tactics and unnatural linking.

These updates have been the topic of great debate in the SEO community. As they filtered out lots of spam sites and scrapers, but many reputable sites which had not recognized the importance of unique content were also affected. Rankings were

decimated with webmasters reporting drops of up to 90% in search engine traffic.

The Penguin update flipped traditional ideas of link building on their head. Until that point the general idea would be to use your keywords as anchor text wherever possible, however, after Penguin this is seen as unnatural linking and will probably trigger a penalty. Diversity in anchor text is now seen as key with keywords making up a small percentage of links and more focus on branded terms (the name of the site) and generic text 'click here', 'this site' etc, which until this point had been avoided by SEOs and thought of as wasted opportunities. This is a good thing and goes back to the citation model of linking.

Google with these update provided a better feel to search and the SEO breath fresh as the spam's, scraps, and duplicate contents are restricted to an extent. It provides an opportunity to SEO to direct the path of search in the real sense of Searching and these updates outstands Google as the pioneer of SEO industry.

6.2 The Panda Updates

While the Panda Updates were initially targeting "content farms", or sites which specifically generated large numbers of pages to target user search queries, the criteria used to ding them could easily wreck many other types as well. Poorly constructed sites where users are confused about where to find what they were searching-for, or sites which make a bad impression by being too crammed full of ads, tricky links, or unsophisticated layouts might also fall under the treads of Panda. [5]

Google announced its first ever penalty targeting content deemed "thin" or "not good enough" on Feb. 24, 2011. Known as the "Panda update," it has caused some publishers to seriously think about how to produce better material. Therefore, Panda is a filter that lets Google sift out content deemed to lack substantial elements. Panda called an "update" because the filter runs periodically. Each time it runs, all the content Google knows about is resifted. Improve content escapes the filter. Poor content gets caught again. Panda is just 1 of more than 200 different factors Google uses to rank pages. The Timeline of Panda update is shown below:

- Panda Update 1.0(Feb.24, 2011) ----->
- Panda Update 2.0(Apr 11, 2011) ----->
- Panda Update 2.1(May 10, 2011) ----->
- Panda Update 2.2(June 16, 2011) ----->
- Panda Update 2.3(July 23, 2011) ----->
- Panda Update 2.4(Aug 12, 2011) ----->
- Panda Update 2.5(Sep 28, 2011) ----->
- Panda Update 3.0(Oct 19, 2011) ----->
- Panda Update 3.1(Nov 18, 2011) ----->
- Panda Update 3.2(Jan 18, 2012).

The Lifecycle of Panda update and its impact have been graphically plotted below:

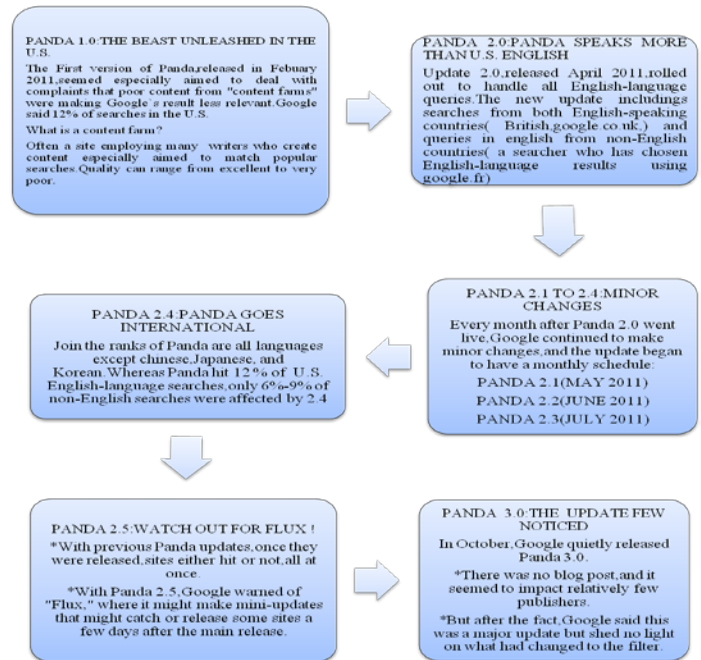


Fig. 1. Lifecycle of different Google's Panda updates that take place with the description of their purpose.

Search engine optimization based purely upon clever technical tricks really appears to be on the wane with the Panda Updates. SEO may really decline in favor of much more sustainable long term attention to User Experience and Usability factors. Unfortunately, it is not seem that lot of websites or companies take advantage of Panda Update.

SEO is becoming much harder to plan and high quality businesses and blogs are rising to the top with spammers on their way down. This trend should continue as Google finally seems to be winning the war on spam and updates to the Panda and Penguin algorithms rolling out regularly which filter out more and lower quality sites. Sites which happened to contain affiliate content which might otherwise get good ratings. Having additional content on the pages, particularly "value-added" content such as maps or user ratings or price comparisons could make a difference. In order to game a successful site the key factors must be:

- High Quality Content With Regular Updates
- Strong Branding And Identity
- Social Networking (and proof)
- Positioning Yourself As An Expert In Your Field
- Fulfilling A Genuine Need Of Your Visitors
- Building Relationships With Other Websites
- High Quality Links From Trusted Resources (quality over quantity)
- Video Marketing
- Good Site Structure, Hierarchy And Internal Linking

So, that's a brief summary of the evolution of SEO with the effective update which led down the beam of stronger Search and search engines and brings us right up to the present day. The war on spam continues, because the trend does appear to

6.3 Future strategies of Google

As stated above in the Paper the Mobile era is already begun and the pioneer of online digital world realized it much earlier as Google gets this switch to mobile, and they're capitalizing on it. Evident from the report of eMarketer [9] that Google earned more than half of the \$8.8 billion spent globally on mobile advertisements in 2012. And it is predicted that Google will increase their mobile advertisement sales by another 92% in 2013 and is expected to be half of the total mobile advertisements sold worldwide. [9]

As we can see by their mobile ad sales its future strategies targeting widely spreading mobile user community, but their app development is also telling about the way they envision search developing - or are at least hoping to see it develop. Actually they are doing it as a matter of fact everything is in their power to continue to own "search" in the digital world. As a result of this the latest update of Google is Google Now is set to start becoming the search engine that thinks for you. It synchs with your existing Google accounts and begins to track your preferences. It uses your personal data to begin making suggestions for you and gives you content before you even ask for it. After a while, you won't need to search for anything - Google will simply tell you what you think you want to know, based on your past searches, interactions, etc.

Some might say that following Panda, Caffeine and Penguin updates, the Author Rank will be the next penalty for websites having nothing interesting to share. Therefore Authors should keep on writing quality content, specialize in a certain field and demonstrate value in order to become an authority themselves in this area. And the companies have two options: either outsource the posting responsibilities or encourage their own employees to develop such skills [6].

7 CONCLUSION

Coupled with the Google algorithm updates in the past few years, it is clear that Google governs the past of search with its strategies and updates it forced to forbid the duplicity of contents and to improve the quality of Search. As a matter of fact it all comes under the delegacy of Google marketing monopoly to become the ultimate pioneer of search and the trends is going to spans in the future too .As , it's all new Google Now is giving us a glimpse into what search is going to look like in the near future.

The new universe of Google is all set with its gravity of strategies, updates and dominating policies so that not only other competing companies but also the elements, issues, ethics, governance, and everything in this search ecosystem will revolve, rotates in this cosmos only.

In fact it is quite considerable to ask, is there really any real search going on? Is Google really on its corporate mission "Google's mission is to organize the world's information and make it universally accessible and useful?" It is a serious question of discussion about the path Google's forging us to choose, but does it look too promising for the consumers and searching world? And also to think about what this proactive, suggestive "search" means for the consumer. It becomes a question of control - who has it and who doesn't.

REFERENCES

- [1] Aaron Wall's (2011)," History of Search Engines: From 1945 to Google Today ",thread on Search Engine History, Retrieved from <http://www.search-engine-history.com/>
- [2] Adam Bunn (2011). "The History of SEO". The Greenlightsearch 31 Jan 2011 Retrieved from <http://www.gossip.greenlightdigital.com/blog/the-history-of-seo-1993-2010/>
- [3] Alyssa Adkins (2013)," Search Party: Google and the Evolution of SEO", posted on June 17, 2013 SocialmediaToday, Retrieved from <http://www.socialmediatoday.com/>
- [4] Brett Tabke (2011)," brief history of SEO" thread on Webmaster World, Retrieved from <http://www.webmasterfarm.com/>
- [5] Chris Silver Smith," Mind Your P's & Q's In Quality to Avoid Google's Panda Updates", September 21, 2011, retrieved
- [6] Dan Popas (2011)," The Evolution of SEO in the Age of Google", thread on AdvancewebRanking Engine History, Retrieved from <http://www.advancewebranking.com/>
- [7] Danny Sullivan(2013), "The Evolution of Search: The Moz Blog" to whiteboard Friday, June 28th, 2013,video transcription, retrieved <http://moz.com/blog/category/whiteboard-friday>.
- [8] David McSweeney(2013).The Evolution of Search Engines and SEO". PhotonQ-Homer's Evolution Theory Retrieved from <http://www.top5seo.co.uk/the-evolution-of-seo/>
- [9] "Digital-First Millennial Put a Premium on Value, Engagement" Jun 6, 2013 Read more at <http://www.emarketer.com/Article/Digital-First-Millennials-Put-Premium-on-Value-Engagement/1009946#E-CIAS51sVKvYD1o.99>.
- [10] Eric Murphy (2013)," A decade of Evolution in the SeO Ecosystem", posted on August 19,2013,Infographic,inShare11, Retrieved from <http://relevance.com/blog/a-decade-of-evolution-in-the-seo-ecosystem-infographics/>
- [11] Google (2013)," Our history in Depth" thread on Google's milestones corporate information page, Retrieved from <http://www.google.com/>
- [12] Guillaume Bouchard (2002). Leading the IT team: Ultimate Oxymoron or ultimate challenge? Search Engine Watch, March/April 2002. Retrieved from <http://net.educause.edu/ir/library/pdf/ERM0220.pdf>
- [13] Rand Fishkin's (2009)," brief history of SEO" thread on Webmaster World April 9th, 2009 - Posted to Search Engine Trends, Retrieved from <http://moz.com/blog/category/search-engine-trendz/>.

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