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A Bird Eye Review On Search Engine Optimiztion For Infromation Retrieval System

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Abstract— In this paper, we have reviewed various research papers to know the depth of research work done in the field of search engine optimization, for easy and simplest way to retrieve the information. Popularity of www increases the new area of interest for research work.

Keywords—Bird Eye Review, Information Retrieval System, Search Engine Optimization

I. INTRODUCTION

Search engine are the most prominent tool to extract information form web (www). The World Wide Web is very large distributed digital information [1]. Since 1990 popularity of internet user's increases gradually, number of software, application tool, and websites has been developed by organization to increase their productivity, economic status to the competing world.

Recent advancement in field of computing technologies makes computing field very comfortable. Every one try to interact with internet services, apart from computing areas, other field requires manual system to learn something about particular technology. But the use of internet doesn't require any other skills to access information through WWW. You need to know how use computer system. If you want to access information www is huge collection of distributed database, it

contains record of whole Universe. You just need to know the name or search key of it. Various search engines are designed by the different organization to fulfil the expected requirements of User's. Search Engine are having their own logic's to manipulate the query term entered by the User's it depends on the query as well as the search engine to fetch the correct information. Today's search engine are designed in such way that no matter how does you have written query term, search engine predict the meaning of query as well as it also convert the spelling and grammatical errors automatically. In this paper, we reviewed literatures to find the depth of the research activities carried out in the area of search engine working strategy.

II. LITERATURE REVIEW

Existing work done by eminent researchers which we have reviewed and presented below in tabular form their year of research works.

| S.No. | Authors / Organization | Title | Proposed Work | Future Scope | Publication | Year |
|-------|------------------------|--------------------------|---|-----------------------|---------------|------|
| | | | | /Associated Problem | | |
| 1 | Venkat N. Gudivada, | Information Retrieval on | Discussed about the search engine working | Indexing quality need | IEEE Internet | 1997 |
| | Vijay VRaghavan, | the World Wide Web | pattern, | to be improved in | Computing | |
| | William I Grosky, | | | information retrieval | | |
| | Rajesh Kasanagottu | | Indexing of documents | system | | |
| 2 | Steve Lawrence and C. | Content and Page | Suggested NEC META Search Engine – | | IEEE Internet | 1998 |
| | LEE Giles | Analysis for Improved | Provide consistent user Interface, | | Computing | |
| | | Web Search | | | | |
| | | | According to his experiment NEC META | | | |

| | | | search engine produce fast result as compared | | | |
|---|------------------------|----------------------------|--|------------------------|-----------------|------|
| | | | to standard search engine | | | |
| | | | | | | |
| 3 | Maj Bernard, J. Jansen | Improving the | Focused on Integration of Information | Modification is | International | 1999 |
| | | Performance of Existing | Retrieval System using software Agent, | required in Search | ACM Conference | |
| | | Information Retrieval | | Engine Working | on Intelligent | |
| | | Systems using a | Focused on feasibility of combining software | Pattern | User Interface | |
| | | Software Agent | Agent, | | | |
| | | g | | | | |
| | | | Monitoring of User's action during the search | | | |
| | | | process, | | | |
| | | | | | | |
| | | | To develop Users characteristics, | | | |
| | | | | | | |
| | | | To develop software Agent | | | |
| | | | | | | |
| 4 | Ricardo Baeza-Yates | Information Retrieval in | Challenges to explore IR on the web, | Crawling is bottleneck | International | 2003 |
| | | the Web beyond current | | for web search engine, | Journal of | |
| | | search engine | Relationship of IR with Soft Computing Tool | | Approximate | |
| | | | and its benefits, | | Reasoning | |
| | | | | | | |
| | | | Focused on difficulty posed by fast changes on | | | |
| | | | web site, | | | |
| | | | | | | |
| | | | Difficult to trust on website data, Focused on | | | |
| | | | User Feedback issue | | | |
| | | | | | | |
| 5 | S G K Murthy, Dr R. N | A fuzzy Logic Based | Main reason behind using neural network is to | | DESIDOC | 2004 |
| | Biswas | Search Engine technique | support the natural language because user | | Bulletin of | |
| | | for Digital Libraries | query are most often in form of string, | | Information | |
| | | | | | Technology | |
| | | | Try to keep the record of matching string of | | | |
| | | | search key, | | | |
| | | | | | | |
| | | CV | Find out all the possibilities of search key, | | | |
| | | | | | | |
| | | | Care should be taken for the scenario where | | | |
| | | | misplaced query string is same as the other | | | |
| | | | (true) query otherwise ambiguity will be the | | | |
| | | | result | | | |
| | | | | | | |
| 6 | Chakkrit Snae | A comparision and | Focused on problem associated with name | | World Academy | 2007 |
| | | Analysis of Name | matching algorithm | | of Science, | |
| | | matching Algorithm | | | Engineering and | |
| | | | | | Technology | |
| | | | | | | |
| 7 | ELSEVIER | Get found. Optimize | To optimize your article for better indexing | | ELSEVIER | 2010 |
| | BIGGERBRAINS | your research articles for | use strong keywords and synonyms, | | | |
| | | search engine | | | | |
| | | | | | | |
| | | | | 1 | | |

| | | | Describe document type in file keywords, | | | |
|---|------------------------|--|---|--------------------|----------------------|------|
| | | | | | | |
| | | | use meta data to describe your article for | | | |
| | | | indexing and ranking, | | | |
| | | | Use vector graphics for improved ranking, | | | |
| | | | Citation of pass research in current research | | | |
| | | | can optimize your article, | | | |
| | | | Popularize your article by social media tool | | 50 | |
| 0 | I DIDIG | | | 0 | 0 | Ţ |
| 8 | Joeran Beel, Bela Gipp | Academic Search Engine | Ranking algorithm works on occurrence of | | Journal of | Jan- |
| | Erik Wilde | Optimization (ASEO): | keyword in title, | | Scholarly | 2010 |
| | | Optimizing Scholary Literature for Google | They discussed the search engine space | | Publishing | |
| | | Scholar and Co. | problem, | | | |
| | | | | | | |
| | | | How citeseer is different from other search | | | |
| | | | engine, | | | |
| | | | Webmaster can alter modify previously | | | |
| | | | published data but ASEO it become difficult | | | |
| | | | to alter information, | | | |
| | | | to after information, | | | |
| | | | Search key is most important for ranking of | | | |
| | | | page, | | | |
| | | A | Length of the search key is also play vital role, | | | |
| | | | Google scholar indexed the whole document | | | |
| | | | based on search key count by does not | | | |
| | | | necessary that page appears on the top of the | | | |
| | | | indexed page, | | | |
| | | | Google scholar does not index text in figure | | | |
| | | | and tables in raster/ bitmap graphics | | | |
| | | | | | | |
| 9 | Meng Cui, Songyan Hu | Search Engine | Discuss about component of SE, | Problem with Flash | International | 2011 |
| | | Optimization for | Information Retrieval System is new and | Technology for | Conference on | |
| | | Website Promotion | recent area of research , | Optimization | Information | |
| | | | , | | Technology, Computer | |
| | | | SE is biggest tool to retrieve information, | | Science | |
| | | | | | Engineering and | |
| | | | Focused on SE Classification Technique like | | Management | |
| | | | Directory Search, META Search, Vertical | | | |
| | | | Search ect, | | | |
| | | | | | | |

| | | | , Focused on SEO Keyword Tool, Link Tool , | | | |
|----|--------------------------|--------------------------|--|-----------------------|-----------------|-------|
| | | | Usability Tool, Keyword Strategy and High | | | |
| | | | Quality Incoming Tool etc. | | | |
| | | | | | | |
| 10 | Ms. Vandana Dhingra, | Towards Intelligent | Information Retrieval is very machine to | Problem associated | International | April |
| | Dr. Komal Kumar Bhatia | Information Retrieval on | machine and it becomes difficult to integrate it | with search engine - | Journal of | - |
| | | Web | meaningfully, | Computer must | Computer | 2011 |
| | | | | understand the text | Science and | |
| | | | Search Engine produces hundreds of links it | meaning before | Engineering | |
| | | | become difficult to manage and identify | processing, | (IJCSE) | |
| | | | relevant one, | 1 07 | | |
| | | | | Future Scope for the | | |
| | | | Keyword based searching method is like | Developer of Semantic | | |
| | | | creating physical connection with page but not | Web | | |
| | | | understand by the machine so lacking of | | | |
| | | | relationship, Focused to Develop Semantic | | | |
| | | | web, | | | |
| | | | | | | |
| | | | Accurately targeting the required web pages, | | | |
| | | | Need to Develop common framework that can | | | |
| | | | reused and shared across the application, | | | |
| | | | ~ | | | |
| | | | Concept should be linked with other concept | | | |
| | | | rather than creating only hyperlink, | | | |
| | | | | | | |
| | | | Suggested to add Intelligence on the page | | | |
| | | | using META DATA Triples and XML | | | |
| | | | ontologies Tool | | | |
| | | | | | | |
| 11 | Dr. S. Saravana Kumar, | A new Methodology for | Building website for Users rather than for | Further enhancement | International | Sept- |
| | R. Ranjitha, K. Ramnath, | Search Engine | search engine, | might be possible | Journal of | 2012 |
| | V.G. Gokul | Optimization without | | | Advanced | |
| | | getting SandBoxed | Maintain link velocity, | | Research in | |
| | | | | | Computer & | |
| | | | Focused on safe link building technique, | | Communication | |
| | | | W. I. I. I. I. I. I. I. | | Engineering | |
| | | | Work on ranked for keyword and pages, | | | |
| | | y | SEO is more about strategy, method and | | | |
| | | | | | | |
| | | | structure | | | |
| 12 | Bigger Brain Elsevier | Increasing Trafic | Focused about SEo working Pattern, | | Bigger Brain | 2012 |
| 12 | 200,100 | website through Search | and the same of th | | Elsevier Career | |
| | | Engine Optimization | Listing or indexing of your website is based on | | Development | |
| | | Technique | content and link on your website, | | Resource for | |
| | | recinique | , | | Early Career | |
| | | | Different Search Engine Comparision, | | - | |
| | | | | | Development | |
| | | | Need to have good quality content and right | | | |
| L | | <u>l</u> | <u>l</u> | <u>l</u> | | |

| | | | keyword, | | | |
|----|-------------------------|--------------------------|--|---|-----------------|------|
| | | | | | | |
| | | | Not to use broken link, | | | |
| | | | | | | |
| | | | Don't use extraneous content in web page, | | | |
| | | | SEO is logn term process and explain the | | | |
| | | | working of SE, | | | |
| | | | | | | |
| | | | Focused on page ranking algorithm working | | | |
| | | | and crawler based searching pattern | | | |
| 10 | 70 10 10 | | N | | | |
| 13 | Tim Finin, MJames | Information Retrieval | Discuss about semantics web document, | | | |
| | Mayfield, Anupam Joshi, | and the Semantics Web | Focused on Swangling technology for | | | |
| | R.Scott Cost and Clay | | Semantics web development, | | | |
| | Fink | | Schances web development, | | | |
| | | | Focused on tight integration of search and | | | |
| | | | search interface, | ' \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | |
| | | | | | | |
| | | | Proposed Model and Implemented OWLIR for | | | |
| | | | Retrieval free test document and Semantic | | | |
| | | | markup, | | | |
| | | | | | | |
| | | | Suggested the content of Swangler and | | | |
| | | | Swoogler, | | | |
| | | | A - > | | | |
| | | | Desinged Swangle to support Google to | | | |
| | | | process semantic web document | | | |
| | | | | | | |
| 14 | Fei Wang, Peng Cui, | Guest Editorial: Special | Focused on Time Sensitivity challenges of | Need to design new | Springer: | 2012 |
| | Gordon Sun, Tat Seng | Issue on information | Social Media Information , | information retrieval | Information | |
| | Chua, Shiqiang Yang | Retrieval for Social | Topic Model is an important tool for | technologies for social | Retrieval | |
| | | Media | information retrieval, | media that can | | |
| | | | information retrieval, | handling the current | | |
| | | | Related information and item domains is | challenges | | |
| | | | critical for social media retrieval and | | | |
| | | | recommendation | | | |
| | | 7 | | | | |
| 15 | Robert Busa-Fekete, | A Robust Ranking | Focused on use of neuro fuzzy based | Serious drawback of | French National | 2012 |
| | Balaza, Tamas Elteto | Methodology based on | technology can improve the learning capability | ranking function is | Research Agency | |
| | and Gyorgy Szarvas | Diverse Calibaration of | of ranking function | requirement of | | |
| | | AdaBoot | | additional parameters | | |
| | | | | to rank the page | | |
| | | | | | | |
| 16 | Sachin Gupta, Ankit | Study of Search Engine | Suggested Strategy to optimize website so that | Keyword selection is | International | Feb- |
| | Aggarwal | Optimization | website achieve high ranking, | oldest approach | Journal of | 2012 |
| | | | | | Research in | |
| | | | Discuss about SEO principles, | | Engineering & | |
| | | | | | | |

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| | | | Work on keyword selection, Optimized each page by separate search key for every pages | | Applied Science | |
|----|-----------------|--|---|--|--|--------------|
| 17 | Dr. C.Jayakumar | Enhanced Bonding based Web Page Information Retrieval Using Clustering Algorithm | Creating cluster on the bases of keyword by the authors, occurrence comparison of key term is done to improve system performance, K-Mean clustering algorithm is suggested to find relevant document and compare the occurrence of keyword, and increased the relevance rate | May create problem because many keyword can different synonyms for same word | International Journal of Research in Engineering & Applied Science | Feb- 2012 |

III. CONCLUSION

In this paper, we have presented broad literature review in the area of information retrieval system and search engine optimization technique, Eminent researchers has presented excellent work in this area, and we have observed that still lots of research work is required to represent reliable and efficient information retrieval system, Some of the researchers has presented future scope of work his work. According to our observation deep research work is need in the area of integration of search engine because there is no or minimum researcher has shown their interest, most of the work is carried out in the keyword matching, indexing, page ranking etc.

We observed that following are the major areas for research in information retrieval system

- 1. Search engines integration
- 2. Search engine for social media information retrieval
- 3. Enhancement of page ranking system
- 4. Effective semantic web for search engines
- 5. Content based information retrieval accurate information retrieval
- 6. Search engines integration conflict and challenges in optimization information retrieval system
 - 7. Replacement of keyword based searching techniques

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