REAL TIME PREDICTION SYSTEM SEARCH

Vishnu A[1], Ashwin Rana[2], Sreerag Premanathan[3], Anondita Guha[4]

[1] *Under Graduate Student, Department of Computer Science and Engineering, SRM University, Ramapuram campus, Chennai, India*

[2] *Under Graduate Student, Department of Computer Science and Engineering, SRM University, Ramapuram campus, Chennai, India*

[3] *Under Graduate Student, Department of Computer Science and Engineering, SRM University, Ramapuram campus, Chennai, India*

[4] *Under Graduate Student, Department of Computer Science and Engineering, SRM University, Ramapuram campus, Chennai, India*

ABSTRACT

Real-time Prediction System (R.P.S) search is an answer engine that specialises in giving fast, efficient and specific answers to questions searched/asked. When a question is asked, the answer engine search for one or two best possible answers for the questions instead of providing the user with multiple website links as is customary in search engines. It reduces the human effort as it provides user with one readymade answer, instead of him surfing through sites for it.The other websites which offer such services include WolframAlpha. RPS search differs from such site by storing and curating answers for common and most searched questions, thereby reducing computation time and saving lot of user's time. Also, it includes a prediction algorithm that gives it more of A.I finish. It provides for an interactive platform where users can ask few questions whose outcomes would have to be predicted or answer has to be provided.RPS could be the next step in search engine revolution. It would serve as most effective search engine especially when integrated with phone assistants such as Siri or Cortana, as it would provide such assistants with better result providing capabilities adding to their humane feature. Providing a conversation approach to the search facility would make it easier and would provide better feel to the user.

KEYWORD: Search, Summarized answering, FAQ database, Constant Curating, A.I features, Interactive platform, Conversation approach, Intergration with Phone Assistants.

1. INTRODUCTION:

The way search engine operates have not changed much since the last decade and only different search engine that came during this period was WolframAlpha, but it too had many drawbacks, many of which have yet not been resolved.RPS is an alternative modern search engine that takes its roots from traditional search engine but has its own innovation integrated with basics.

It's aimed at making the whole search engine scenario more humane and provides a conversation style approach to the searching, i.e. one or two answers to a questions. It aims to be next step in search engine revolution and improve current scenario even better and take this facility even farther. Features of our search engine are as follow:

- To provide users more comprehensive, faster and precise search engine
- To create a better backdoor help for phone virtual assistants
- To reduce the manual work of the user
- To provide users with pseudo A.I Feel(as seen in iron man movie)
- It would provide user with one or two most eligible answer instead providing with multiple links.
- It would be able to answer science related questions with ease.

- It would constantly collect information about FAQ's and curate it's database.
- It would reduce computational time by not mining data for each question. FAQ's would be answered from it's database.
- It would be more user friendly.
- It would have predictive and interactive capabilities.
- It would serve as a better search engine for phone virtual assistants

The existing system that is most close to RPS is WolframAlpha. In existing system the interface is not user friendly and it takes a lot of computation time for providing results for even the most basic search questions. Also, search results of most of the basic and general questions are not updated. Coming to the cases of common search engines they provide multiple site links for a search or multiple options, the user has to do the manual work of researching on these multiple options to find a conclusive answer. The traditional search engines involves just the collection of various websites related to search query or top 10 options related to the query , the user need to surf through these sites or surf for option in net to get a conclusive answer. RPS search would work towards solving these issues and work for the cause of easing the manual work of user providing just one or two conclusive answer for each questions, it would provide the conventional search engine system a more humane touch and feel and add a layer of simplicity.

OBEJECTIVE:

- To provide users with conclusive answers for search results instead multiple options or links.
- To reduce the manual work of the user.
- To lead to the next step in evolution of search engine feel.
- To provide a humane touch and feel to whole search engine use.
- To make it simpler for searching and finding results
- To provide faster, better, conclusive and finite answers to all search questions.

INDENTIFICATION OF NEED:

The search engine industry has not yet witnessed any major changes in the past decade except for the introduction of WolframAlpha into the industry; though a novel idea it too had many drawbacks. What we aim is to revamp the whole search engine feel in way that reduce human effort in finding answers, providing a humane feel and conversation style approach to search engine system. The idea is to take the concept of search engine into next level were they would give us conclusive and finite answers to our search queries.

FEASIBILITY STUDY:

Feasibility studies aim to objectively and rationally uncover the strengths and weaknesses of the existing system or proposed venture. In its simplest term, the two criteria to judge feasibility are cost required and value to be attained. As such, a well-designed feasibility study should provide historical background of the project. Generally, feasibility studies precede technical development and project implementation. The assessment of feasibility study is based on the following factors:

1) Technical Feasibility

2) Operational Feasibility

TECHNICAL FEASIBILITY:

Generally, feasibility studies precede technical development and project implementation. The assessment is based on a system requirement in terms of Input, Processes, Output, Fields, Programs, and Procedure. This can be quantified in terms of volumes of data, trends, frequency of updating, etc., in order to estimate whether the new system will perform adequately or not. Technological feasibility is carried out to determine the capability, in terms of software, hardware, personnel and expertise, to handle the completion of the project.

OPERATIONAL FEASIBILITY:

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development. The operational feasibility of the system can be checked as it solves the problems and reduces the complications occurring in the paper-pencil test

CONCLUSION OF FEASIBILITY STUDY:

1) Technical Feasibility: The system can be implemented using computer software & hardware.

2) Operational Feasibility: The system efficiently would reduce the computation time and would provide better and conclusive results and would thus save time and manual labour of user to do research on search topic.

2. THEORY:

Search engine is basically used to solve queries and find information. The user can be any person who needs to access information of any sorts he just has to type and give a questions and results relating to search will pop up. Questions can vary from a simple general question to complicated mathematical or a historical context question. Users include people across all age group and job.

The search engine would go around the net and collect all information regarding the questions asked by the user and then pop up the results. What it basically does is accepts a search, searches for the information required throughout the net and presents the information.

EXISTING SYSTEM: -

The existing system that is most close to RPS is WolframAlpha. In existing system the interface is not user friendly and it takes a lot of computation time for providing results for even the most basic search questions. Also, search results of most of the basic and general questions are not updated. Coming to the cases of common search engines they provide multiple site links for a search or multiple options, the user has to do the manual work of researching on these multiple options to find a conclusive answer. The traditional search engines involves just the collection of various websites related to search query or top 10 options related to the query , the user need to surf through these sites or surf for option in net to get a conclusive answer. RPS search would work towards solving these issues and work for the cause of easing the manual work of user providing just one or two conclusive answer for each questions, it would provide the conventional search engine system a more humane touch and feel and add a layer of simplicity.

PROPOSED SYSTEM: -

The proposed system provides an interesting take on all search engine scenario. It focuses on making whole searching experience simple yet effective. The aim is to make the results specific and definitive and the experience friendlier and better. It plans on taking it's root from its traditional system and delivering a new, an enhanced and a simple yet better experience, one that focuses reducing the information gathering efforts of it's users even further than the traditional search engine does. The idea is to revamp the whole search engine feel in way that reduce human effort in finding answers, providing a humane feel and conversation style approach to search engine system. The idea is to take the concept of search engine into next level were they would give us conclusive and finite answers to our search queries. It serves as an advanced version of search engine.

MODULES

Question answering (QA) is a computer science discipline that automatically answers questions posed by humans in a natural language. A QA implementation, usually a computer program, may construct its answers by querying a structured database of knowledge or information, usually a knowledge base. More commonly, QA systems can pull answers from an unstructured collection of natural language documents. It serves as an advanced version of search engine.

Number of Modules:

The modules used by RPS Search are:-

1. Crawler
2. Page Repository
3. Indexing module

4. Querying module
5. Ranking module
6. FAQ module

CRAWLER

The Crawler module scans the massive and unstructured World Wide Web and sends the multiple spiders to fetch web pages. In return the web sends back the data in the form of web pages to the crawling module. Web pages may be presented in the form of URL or hyperlinks after they got through processing by spiders.

PAGE REPOSITORY

Page repository temporarily stores all the fetched web pages and later on provides them to the indexing module.

INDEXING MODULE

Indexing module strips off the contents from these web pages. Usually the extracting key elements here are title tag, description tag and internal links using the search engine optimization techniques. Hence the summaries of these web pages are being created which are further broken down to chunks of indexes in the form of content, video and image. The above three modules described and the interactions between them function independent of the query.

QUERING MODULE

The execution query part depends upon the last two modules plus the search engine. As a result, the indexes from indexing module are then sent to the querying module. When the user types the query in the search box of RPS engine for example, Google, it is immediately sent to the querying module for further action. The querying module breaks it into a language which the specific search engine understands. After that the module shows the vast amount of results in the form of web pages.

RANKING MODULE

In the end querying module sends further these results to the ranking module which ranks the web pages using page popularity and their rank, thereby reducing the result set and providing them according to user needs. Finally ranking modules sends the desired result set to the user as per requested

FAQ MODULE

The FAQ module collects stores and curates the answers to frequently asked question, thus reducing the computation time required for these frequently asked questions even further. It focuses on what are the general questions bound to asked by anyone, answers to those questions and updating those answers on such a time basis that these answers always remain relevant.

ADVANTAGES:

These are the following advantages of our application:

- It would provide user with one or two most eligible answer instead providing with multiple links.
- It would be able to answer science related questions with ease.
- It would constantly collect information about FAQ’s and curate it’s database.
- It would reduce computational time by not mining data for each question. FAQ’s would be answered from its database.
- It would be more user friendly.
- It would have predictive and interactive capabilities.
- It would serve as a better search engine for phone virtual assistants.
- It would reduce the manual research effort of the users.

- It would be faster, better and simpler
- It would have humane touch and feel.
- It would be more productive and would save lot of user's time.

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CONCLUSION:

As above mentioned RPS search aims at revamping the entire search engine scenario to give it a humane feel, to reduce the human effort and to be faster and better at the same time. It would help user to find conclusive and definite answer to their questions, instead of them having to search through links of related search results or confuse them with 10 options. It would be faster and hence the user would not have to wait for minutes to get answers for even the simplest questions. It would take the whole search engine experience to next level while keeping it simple so that any person can use it with ease and finesse.

LIMITATION:

- The F.A.Q database management and maintenance would lead excess cost.
- The concise answer approach would mean that certain very few general answers can sometimes go wrong.

RPS search would be the next step in search engine revolution. It would function as go to search engine that not only works faster and is easy to use but also provides it's users with conclusive answers giving a conversation style feel to the user and humane touch to the search engine. It aims at revolutionising the search engine experience and reducing whatever human effort required by the user and saving his time.

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BIOGRAPHIES:

	Sreerag Premanathan Under graduate Student, Computer Science and Engineering at SRM University Ramapuram Chennai(TN)
	Ashwin Rana Under graduate Student, Computer Science and Engineering at SRM University Ramapuram Chennai(TN)
	Vishnu A Under graduate Student, Computer Science and Engineering at SRM University Ramapuram Chennai(TN)
	Anondita Guha Under graduate Student, Computer Science and Engineering at SRM University Ramapuram Chennai(TN)