

## **ADAPTIVE WEB BROWSER**

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### ***Abstract***

*Web browser play important role in World Wide Web (WWW). We go through different website and invest enough time searching relevant URL. The project deals with making a browser that will assist a person to find relevant information satisfying long term recurring goals rather than short term goals and describe our research on learning browser behaviour model for predicting the current information need of web user. Depending upon the user sequence of browsing behaviour it indicates the degree to which page content satisfies user's need. Thus one's search experience may be used to help the next users to reduce their searching effort. So, through more and more searching greater experience will be gained by browser. We deploy extensive use of machine learning for the browser to learn user's behaviour. By such model the searching ability of browser becomes more efficient and faster thus resulting in an intelligent and adaptive web browser.*

**Key Words** – Machine learning, WWW

### **I. INTRODUCTION**

While the World Wide Web contains a vast quantity of information, it is often difficult for web users to find the information they are seeking. A more useful system would not impose this requirement on the user, but instead would predict the exact query to return a page to satisfy the user's current information needs. We call such a page an information content page, or "IC-page" for short, and name such a query as "machine query" since it is not produced by the human being. Suggestions using a set of "browsing features" to predict the user's current information need, which can then be used to find relevant web pages by launching a Web crawler or querying a search engine.

For the problem of predicting clicked hyperlink, the simplest solution would be to have a binary-. In this way some existing text-learning methods can be used. In this case all the hyperlinks clicked by the user are considered positive examples. This partially already captures user interests. However, in many cases user didn't click on a hyperlink just because the lack of time and also probably didn't find interesting all the visited documents. This approach could be adapted for the problem of suggesting interesting hyperlinks, if we are prepared to accept that all the documents visited by the user were interesting to the user and that un-clicked (or random) documents are uninteresting. Of course, the

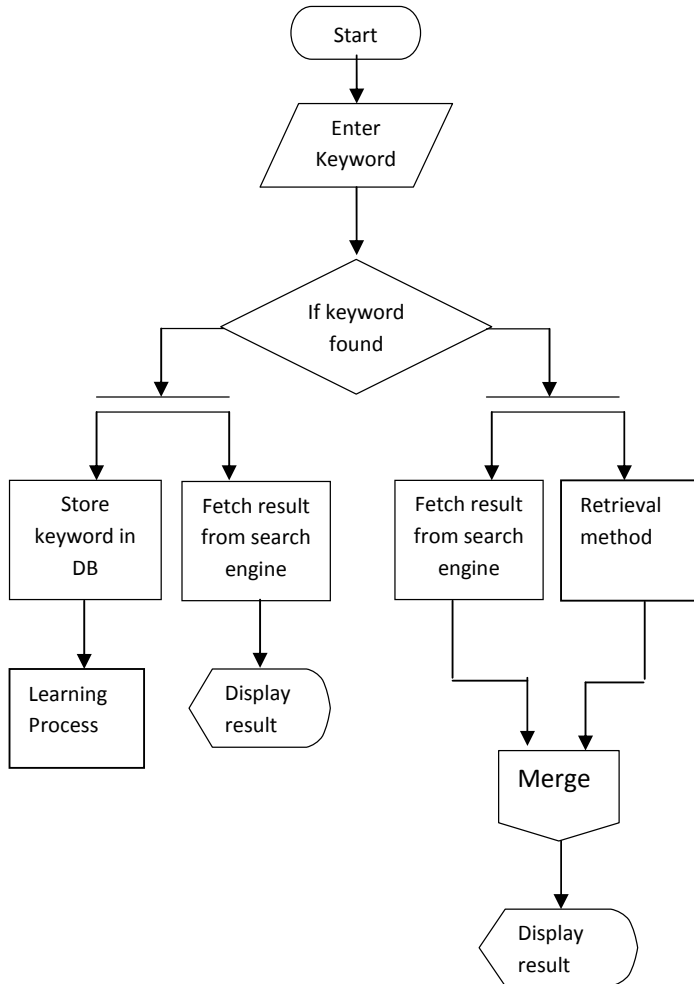
simple solution to that would be to ask the user for documenting but we do not want to put additional work to the user.

## II. EXISTING SYSTEM

Currently, most users are employed with information retrieval techniques in the form of popular search engines to find useful pages. While such techniques have been quite helpful, they still require a user to provide explicit input. Search engines can only work if the users have intuitions about what keywords they should use (i.e., which words will cause the search engine to produce the information the user is seeking). But sometimes the user is not aware of her explicit need, or cannot figure out the right query to locate the exact pages that she/he wants.

## III. METHODOLOGY

The proposed system has the following process flow:



## SEARCHING FLOW

## PREDICTING CLICKED HYPERLINK

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#### **PREDICTING INTERESTING HYPERLINK**

Predicting interesting hyperlinks can be performed by predicting clicked hyperlinks as described in Section. Noise in the class value can be reduced by learning from the clicked hyperlinks (positive examples) only. This would in our case require solving at least two additional problems:

- (1) Finding an appropriate feature selection method, say the basis for hyperlinks to consider can be the clicked hyperlinks(positive examples) and
- (2) Proposing a suitable result evaluation.

Algorithms like association rule, naive bayes, k-means can be used to perform learning.

Additionally, features like number of clicks (how many times a hyperlink is clicked corresponding to a particular keyword),time duration (time spend on a particular hyperlink),can be taken into account.

#### **IV. ALGORITHM**

Step1: Start.

Step2: Get keyword from user.

Step3:If keyword exists then retrieve, from database the relevant links using retrieval module and also from search engine.

Step4: If not then save keyword in database and display result using search engine.

Step5: Save clicked hyperlinks corresponding to the keyword clicked by user(positive links).

Step6: Apply Machine Learning methodology to database to generate interesting hyperlinks pertaining to IC page.

Step7:Display the results to user.

#### **V. FUTURE SCOPE**

To further help users browsing the Web, a profile can be induced for each user independently of other users. This profile can be further used to compare different users and to share knowledge between them. In order to secure the privacy, only knowledge and not the user identity can be exchanged or even this cooperation could apply only for users that explicitly agreed to take part in knowledge sharing.

On the other hand, some users might be interested in 'making friends' with similar users and join the list of users whose identity (eg. e-mail) is revealed to similar users from the list. This sharing of knowledge is related to collaborative approach to intelligent agents design and methods used in multi-agent systems. A way of cooperation between different users using the same system for user customized Web browsing is on the model induction level. Namely, even though each user has a separate user profile, they have a similar form. If we could infer from the user profiles some higher

level knowledge that is independent of a specific set of documents, that knowledge could be shared between users. For instance, if we have given some background knowledge, find which part of a given background knowledge is frequently used in different models (which higher-level attributes are useful). That would be especially valuable for new users, where only a small set of documents is available for the model induction. Sharing knowledge between different users of the system is out of the scope of this paper.

Also, the results obtained from various search engines can be categorised to distinguish and validate the effectiveness of information retrieval methodology used by them. This partially can be used as a parameter by search engine to make relevant improvement in their searching algorithm.

## **VI. CONCLUSION**

The paper proposes the methodology that helps user to retrieve IC page but only through long term machine learning experience of browser. Distinguishing feature of proposed system is that

- The browser has a dedicated database to it and can provide user hyperlinks in offline mode.
- It reduces the dependency of user on search engines gradually gaining autonomy as an assistant to help user.
- Since the processing of data takes place at client side the user is provided with relevant hyperlink faster independent of server to which it seeks link.
- Apart from browser's suggested links the user is not kept from results of search engine.

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