



## An Ontology Like Model for gathering Personalized Web Information

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**Abstract:** In recent days the amount of Information Available on the internet is huge when compared to past few decades. How to gather useful information from the web has become a challenging issue for users. Current web information gathering systems trying to satisfy user requirements by looking at their information needs. For this purpose, user profiles are created for user background knowledge description. User profiles represent the concept models possessed by users when gathering web information. A concept model is implicitly possessed by users and is generated from their background knowledge. While this concept model cannot be proven in laboratories, many web ontologists have observed it in user behaviour. When users read through a document, they can easily determine whether or not it is of their interest or relevance to them, a judgment that arises from their implicit concept models. If a user's concept model can be simulated, then a superior representation of user profiles can be built. To simulate user concept models, ontology's—a knowledge description and formalization model—are utilized in personalized web information gathering. Such ontology's are called ontological user profiles or personalized ontology's. To represent user profiles, many researchers have attempted to discover user background knowledge through global or local analysis.

**Keywords:** ontology, web information gathering, user profiles.

### I. INTRODUCTION

To construct ontology model, which simulates users' concept models by using personalized ontology's, and attempts to improve web information gathering performance by using ontological user profiles. Ontology's are widely used to represent user profiles in personalized web information gathering. However, when representing user profiles, many models have utilized only knowledge from either a global knowledge base or a user local information. In this work, a personalized ontology model is proposed for knowledge representation and reasoning over user profiles. This model learns ontological user profiles from both a world knowledge base and user local instance repositories. In this proposed project, we have developed a model which takes the LIR value like personalized individual AOI field into consideration for searching the data according to the user area of interests and this AOI field is applied as an advanced search key option for the total data that is retrieved by the Google Server.

### II. BACKGROUND KNOWLEDGE

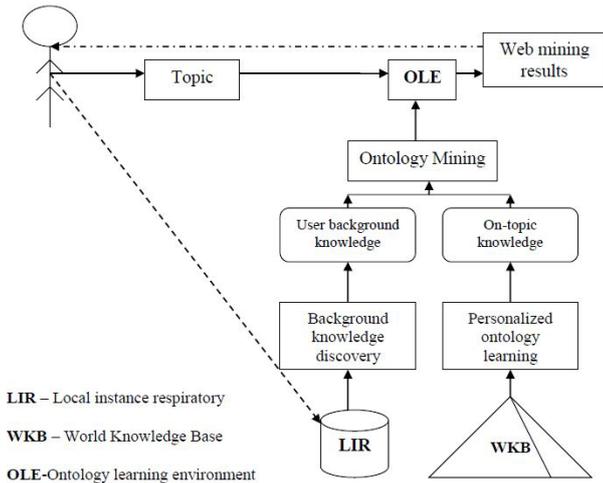
The world knowledge and a user's local instance repository (LIR) are used in the proposed model. World knowledge is commonsense knowledge acquired by people from experience and education an LIR is a user's personal collection of information items. From a world knowledge base, we construct personalized ontology's by adopting user feedback on interesting knowledge [1]. A multidimensional exhaustively, is also introduced in the proposed model for analyzing concepts specified in ontology's. The proposed ontology model is evaluated by comparison against some benchmark models through experiments using a large standard data set. The evaluation results show that the proposed ontology model is successful. The research contributes to knowledge engineering, and has the potential to improve the design of personalized web information

gathering systems. The main concern in web information gathering is personalization[2]. The contributions are original and increasingly significant, considering the rapid explosion of web information and the growing accessibility of online documents. The project is organized as follows: Section 2 discusses the overview of the model; in Section 3, we present basic architecture of the ontology model. In Section 4 we introduce how personalized ontology's are constructed for users by mentioning of list modules presented in our work; Finally, Section 5&6 makes conclusions and addresses our future work. Global analysis uses existing global knowledge bases for user background knowledge representation[3]. Commonly Used knowledge bases include generic ontology's (e.g. WorldNet), thesauruses (e.g., digital libraries), and online knowledge bases (e.g., online categorizations and Wikipedia). The global analysis techniques produce effective performance for user background knowledge extraction. Ontologies are also used in creation of personalization in XML based systems[4]. Ontology Learning Global knowledge bases were used by many existing models to learn ontology's for web information gathering[5]. Personalization of web data using ontology was built on combining few personalized models for web information gathering and comparing them[6]. We can achieve efficient personalization by acquiring the accurate context of the user[7].

### III. PROBLEM STATEMENT

In recent days the amount of Information Available on the internet is huge when compared to past few decades. How to gather useful information from the web has become a challenging issue for users. Users getting frustrated with unnecessary information while they are searching for a topic on internet. Now a days Internet searching is a major domain in computer science research areas. To alleviate the problems in personalized searching we tried to give an ontology like model for gathering personalized web information.

**IV. PROPOSED SYSTEM**



**Fig1:** Architecture of basic ontology

In proposed system we strive to achieve highly related information for users personalized search. This model consists following modules to implement the system in an effective manner.

**A. User Profile Creation & Authentication**

In this module we describe create about user profile. When user comes first time for browsing we will create new profile to that particular user. User profiles were used in web information gathering to interpret the semantic meanings of queries and capture user information needs.

**B. Gathering Local & Global information**

In this module we will collect the local and global information’s about user. Local knowledge based on local instance repository, this is collect user browsing history and also it will capture the client ip address. It will be useful for make efficiency user profile. In global Knowledge based on user feedback and world e-libraries.

**C. Decompose the Categories**

Interviewing user profiles can be deemed perfect user profiles. They are acquired by using manual techniques, such as questionnaires, interviewing users, and analyzing user classified training sets. Semi-interviewing user profiles re acquired by semi-automated techniques with limited user involvement. No interviewing techniques do not involve users at all, but ascertain user interests instead.

**D. Comparison between web search and user profile**

In this module we will do comparisons between user personal profile and real time web search result. So we will get different result to different user. When using a search engine, users typically formulate ambiguous queries which contain between one to three key-words. The search results that are returned from the search

engine may satisfy the search criteria but often fail to meet the user’s search intention.



**Fig2:** General search



**Fig 3:** personalized ontology search

**V. CONCLUSION AND FUTURE WORK**

An ontology model is proposed for representing user background knowledge for personalized web information gathering. The model constructs user personalized ontology’s by extracting world knowledge and discovering user background knowledge from user local instance repositories. A multidimensional ontology mining method, exhaustively and specificity, is also introduced for user background knowledge discovery.

In this work, it is found that the combination of global and local knowledge works better than using any one of them. In addition, the ontology model using knowledge with both and part of semantic relations works better than using only one of them. When using only global knowledge, these two kinds of relations have the same contributions to the performance of the ontology model. While using both global and local knowledge, the knowledge with part-of relations is more important than that with is a. The proposed ontology model in this project provides a solution to emphasizing global and local knowledge in a single computational model.

The methods that generate user local instance repositories to match the representation of a global knowledge base can be investigated. The present work assumes that all user local instance repositories have content-based descriptors referring to the subjects, however, a large volume of documents existing on the web may not have such content-based descriptors. For this problem, strategies like ontology mapping and text classification/clustering were suggested. The investigation may extend the applicability of the ontology model to the majority of the existing web documents.

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