

SEARCH ENGINE OPTIMIZATION USING FEED FORWARD NEURAL NETWORK

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Abstract

This paper provides the development of a health system ontology. A backpropagation algorithm in the neural network is used for keyword retrieval, and deals with health ontology during this retrieval. This approach covers an integral approach to the system's contents. This approach is built into a semantic relationship to a decision tree for implementation purposes. It illustrates the clear connection between the keywords and their respective contents.

Keywords:

Healthcare, Decision Tree, Feed Forward Neural network, Search Engine Optimisation

1. INTRODUCTION

Due to a variety of reasons, including people, networks, sensors and software, World Wide Web data is growing quickly in data repositories. Millions of regular purchases and tools like Facebook, Twitter, LinkedIn, Google+ and Tumblr, for example, offer a wide variety of information in social media. This broad data generate different problems called velocity, volume and variance attributes. Clearly, the speed means that the data arrive at high speed as the volume is focused on big, increasing files (e.g. text, sound and video). These problems allow developers to find a methodology that allows to retrieve the exact data and to solve current problems, so that a semanticized search can be accomplished.

The Internet has influenced the media and has undermined conventional journalism tremendously in recent years. Basic work processes such as news collection, news processing and delivery, and the ways in which the public watch the news have totally shifted [1]. During the accelerated growth of emerging technology, many news channels appeared alongside search engines, social networks and civic journalism. In recent years the development of the World Wide Web from the initial years to Web 2.0 has seen notable improvements in web contents such as user generated content, the metadata or the social web, alongside emerging Networking infrastructure and the proliferation of digital search engines. In the last few years, too, search technology has evolved in itself [2].

The accessibility of a site by means of online searches has become an important component of the site's sustainability. The conversion to digital media has put journalists elsewhere [3]. The aim of the tale is to find readers through search engines and news aggregators on the Internet with a wealth of websites of news, the rapid dissemination of news and the survival of a "click culture". Journalists often write to be read [4].

As the industry developments, fresh analyses of current thinking and practise are continuously needed. The purpose of this paper is to concentrate on the absence of corresponding work in academic literature and promote a better understanding on media. The fundamental approach concerns the possible offered by search engines and web search to new media organisations via wide spectrum search.

The aim of ontology is to create a pool of common and mutual information that can be distributed between individuals and among application systems. Thus, ontologies play a central role in the achievement of interoperability between organisations and the Semantic Web since they are able to take advantage of domain knowledge.

2. LITERATURE SURVEY

A new algorithm called Innovation Engine is under consideration. It is based on a new search that substitutes a human-generated behavioral inaccessibility with a deep neural network (DNN), which is able to discern exciting variations between phenotypes and is performed on an abstract basis [6].

A concept of ontology is built based on terms used to describe depression, and a Bayesian network is being used to consider the probability of depriving. A system that uses multi-agent structures operating on the Android platform is implemented, demonstrating the possibilities of this approach [7].

The experimental findings demonstrate that this methodology beats the broad-first approach to search crawling; basic keyword-based crawling approach; ANN-based, oriented crawling approach; and the focused crawling approach that uses only a domain-set approach [8]. The main goal of these approaches is to maintain a constant rate throughout the crawling process.

The model is largely based on the premise that the classic database, along with a cluster of fugitive decisions, can be translated into a smaller case base. Thus, the model can respond more specifically on the current data in the orders provided by these thin, decisions trees [10].

A NPV-based objective function is being proposed and the optimum solution is achieved by means of a hybrid optimisation technology, which involves quadratic programming and PSO (quadratic programming) algorithms that have the maximum source potential and acceptable micro-grid operating strategy [5].

A semantic approach is explored in relation to the combined interpretation of medical field knowledge and patient evidence for practical clinical judgments implementations. In the case study, the suggested solution was successfully tested as support for clinical decision-making at high precision rates and approval [11].

The second process uses a customised ontology to automatically modify intervention schemes representing general health care therapies as an individual participatory scheme. Finally, ontology can also be used as a framework for the knowledge of a decision aid mechanism. The second strategy uses the personalised ontology of a patient to automatically change the intervention plans of the health care community [12].

A covert semantic indexing classifier is developed, combining relation analysis with text material for extracting and indexing domain-specific web documents. Our implementation offers a different method for oriented crawling and is aimed at resolving

constraints on initial training information while retaining a high retrieval/precision ratio [13].

It recommends an engagement-based service definition report from a key ontology guide named the UFO-S. The agreements generated between service providers and consumers were discussed and demonstrated how those responsibilities influence the lifecycle of the service. Nevertheless, the commitment-based account can be used to harmonise various literature concepts of service [9].

3. PROPOSED WORK

The search engines are available at the present time. To search the content of a given keyword in the search bar with several other algorithms, the search time is shortened. The current search engines are used with keywords only. It would function better according to the weight of a keyword.

In ontology, concepts and relations between them are described as a specification. In ontology, classes define ideas of the domain. Properties or slots describes the features and qualities of the definition. It forms the information foundation for the domain in accordance with instances that are individuals of a class. Groups are an important subject of ontology and may be categorised in order to clarify particular characteristics of a class. If we classify a class as illness, for example, it encompasses all disease types in the area of disease. More basic disorders such as clinical and etiological can be categorised in the disease class. The characteristics of the class can be explained in slots or properties. For e.g., we may describe a property known as the attacking organ of a certain form of illness. The assets concerned are linked to:

- *Linguistic Similarity* implies that a string is compared with other, identical words. During the assessment, synonymous database tables are considered.
- *Definition Similarity*: Opposed to finding the similitude attribute, the meaning of two words. The methodology uses an algorithm for two words for text classification.
- *Neighbour Similarity*: two words are compared to parents and children. If neighbours are compared, the likelihood of similarity is very high. The algorithm uses the above metrics and determines the formula for the similitude value.

The processing time for the material to locate precise keywords in the search bar can be reduced using numerous algorithms. Present search engines run on the basis of keywords. Search work will be accurate depending on the importance of the keyword or the language relevance of keywords and content will be lost. The approach to creating ontology for the health system is recommended. To gather the contents in the keyword and fetch the method is compatible with health care ontology, a neural network back propagation algorithm is used. The method formulated by the decision tree is an inclusive one, based on linguistic relations. It also provides a strong connection between the keywords analogue content.

4. RESULTS AND IMPLEMENTATION

This is a Java-designed framework. Using the system, the system can immediately download from the database the keyword for the search engine. The browser history of the consumer is

measured. Our search engine tokenizes all the words on the browsed list, discovers and measures the weight of the most common words on that page. The coincidence of the search keyword with the browse page is found. After selecting a keyword, we build a healthcare system ontology using keywords that can be individuals or the main ontology class.

Table.1. Achieved Page Ranking

Search Engine	Achieved Page Ranking
Google	87
Yahoo	75
Baidu	87
Search	77
Proposed	85

The proportion of page classification up to 10 pages is seen in Table.1. The graph displays the percentage of the 10-page algorithm using separate search motors. The page classification statistic of the implementation is checked with the page ranking checker, as well as that of other search engines.

Table.2. User Percentage

User type	New page visit %	Old page visit type
new	89	15
old	49	60

The new and old sites accessed by both new and old users are represented in Table.2. High percentage of new users go to new websites while most existing users are visiting old websites.

The average time spent for browsing web pages in a variety of data bases is time quality. The efficiency of the semantic resemblance algorithm is contrasted with the methodology suggested in Table.3.

Table.3. Performance Comparison

Parameter	Semantic Similarity	Proposed Technique
Time Efficiency	86.78	90.45
Accuracy	91.46	85.56
User Specific Page Generation	0	87.22
Relevance Ratio	92.04	93.76
High Relevance Ratio	41.77	50.75

5. CONCLUSION

In search for a particular keyword, the use of countless algorithms reduces the time. Using keywords leads to efficient searches, otherwise the linguist importance of keywords and content would be lost. An algorithm that fits the ontology of health care, is used to pick keyword information. This is an inclusive approach conceived in linguistic relation to the decision-making tree. The relationship between the analogue material and the keywords is obvious. The search engine is effective in single domain searches and decides how strong it is to gather data for multiple domain searches. The search engine is eventually special

by gathering important search data and saving user time by tossing out meaningless results.

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