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STRUCTURAL AND DESIGN DEVELOPMENT OF INFORMATION RESOURCES

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ANNOTATION

This article shows how to optimize the processing process in interaction with information resources to obtain the necessary information and the necessary knowledge to address certain requirements for the structure of information storage and use.

Keywords: DataMining, TextMining, On-Line Analytical Processing, OLAP), Data Warehouse, operational data.

INTRODUCTION

Knowledge is present not only in the individual, but also in the set of data to be analyzed. Such knowledge is often referred to as "secret" and refers to a large amount of information that a person is unable to study on his or her own. Therefore, there is a risk of missing hypotheses that could be of great benefit.

It is obvious that in order to find hidden knowledge, it is necessary to use special methods that focus on an automatic object from which knowledge is extracted from information. This direction is known as data mining or Data Mining [4-5].

Models serve to express the knowledge gained in DataMining. Among them, the most common are: rules, solution tree, clusters, and mathematical functions.

Analysis of structured information stored in a database requires initial processing: Design, input of information according to certain rules, its placement in special structures for example, relational tables, etc. placement Thus, it will be necessary to make additional efforts to directly analyze this information and to acquire new knowledge from it. However, they are not always relevant to the analysis and may not give the desired result. In addition, all types of data can also be structured without losing useful information. For example, text documents cannot be converted to a tabular view without losses in the relationship between text semantics and entities. The same time, a large amount of information is hidden in the text, but its unstructured nature does not allow the use of DataMining algorithms. Unstructured text analysis methods deal with the solution to this problem. In the Western scientific literature, such an analysis is called Text Mining.

Methods of analyzing unstructured texts are located at the intersection of several areas: Data Mining, natural language processing, information retrieval, information extraction, and knowledge management.

TextMining is the notrivial process of finding truly new, potentially useful, and understandable templates in unstructured textual information.

Apparently, it differs from the definition of Data Mining only in the new concept of “unstructured textual data”. Such knowledge is a set of documents consisting of a logically integrated text without any restrictions on its structure. Examples of such documents are: web

pages, emails, documents, etc. In general, such documents can be complex and voluminous, as well as contain different types of information. Documents that use Extensible Markup Language extended designation language, SGML (Standard Generalized Markup Language) generalized designation standard language, and other similar agreements on text structure formation are called semi-structured documents. They can also be processed by Text Mining methods [5].

Text Mining is one of the key parts. The process of analyzing text documents can be described as a series of several steps: information retrieval, initial processing of documents, extracting information, application of Text Mining methods, interpretation of results for. There are different approaches to determining the number of design stages. Modern corporations that provide efficient processing and object-oriented solution of object-oriented features with the above features Data Warehouse The concept is applied. This allows operational data to perform data collection and operational processing input, deletion, and search operations to form structures and then analyze them [1-2].

It depends on many factors, in particular the nature of the functions of the future intelligent system, the field of application, the availability of advanced instrumental tools, and so on.

Problem identification and identification of their properties. A terms of reference will be developed for the projected system, and the range of system users will be limited.

Distinguish the main concepts of the subject area, which represent the knowledge of the circle of experts. The knowledge engineer determines the formal means of reflecting knowledge and decision-making procedures. The concepts that determine the choice of the structure of the presentation of expert knowledge about the subject chassis are defined and formed. The main source of knowledge about the problem area is the human expert, books, technological definitions, instructions, documents, "brainstorming", methods of automating the knowledge base. Another important source of knowledge is the Internet traditional search for the necessary information and knowledge, as well as intellectual agents programming robots.

Determining the choice of the form of description of knowledge and the mechanism of decision-making. The structure developed to reflect the knowledge is the basis for carrying out the next step - the direct construction of the system. Choosing or developing a language for demonstrating knowledge. Once the rules are formed and the demonstration is shown in the selected language, it is entered into the by the knowledge engineer.

Test the system by solving specific inspection problems.

The stages of creation are not clearly defined. It is difficult to draw a line between time and content between some of them. They are, in a sense, a rough description of the design process.

Depending on the nature of the functions performed and the area of action, experts perform several characteristic tasks that are typical: interpretation, planning, management, design, forecasting, monitoring, and diagnostics. Most importantly, the expert is able to update, explain actions, predict the development of situations, actively interact with the external environment and understand various information, make decisions based on existing knowledge, store necessary information and factual information in memory.

Thus, it is necessary to try to introduce opportunities for the implementation of the functions listed in the architecture of systems that work with knowledge and can replace the expert in

decision-making during a certain level of production management. Therefore, the structure and overall structure of the structure based on the first chapter below are proposed.

This structure implements a dialog interface that is responsible for communicating with external sources, identifying hidden patterns that provide the next level decision maker, application programming languages, final stage of decision justification and the planning work that blocks the interaction. Experts and measurement modules can also be involved in working with.

Design, which is now one of the most important components of large intelligent information systems, is characterized by multi-stage and complex implementation of algorithms. The efficiency of design processes is largely determined by the characteristics of the algorithms and programs that ensure the automation and shaping of all stages of their construction process. Therefore, the issues of improvement and development of effective software-algorithmic tools for automated systems of knowledge extraction remain relevant.

The field of effective knowledge, which has a logical structure built on the terms of the subject area, which is understandable to the user, is also a key factor in the process of acquiring new knowledge. It should be noted that the rational organization of provides not only the use of convenient tools for the acquisition knowledge, but also new opportunities in the process of creating knowledge. Thus, the object-oriented methodology allows the construction of an easy-to-use model for storing and using the knowledge defined in the subject area terms. The formation of knowledge allows to process a large amount of information and improve the process of systematization of accumulated knowledge and experience. It should also be noted that interconnected stages allow the integration of different models of knowledge demonstration, and, consequently, the modernization of intellectual information-analytical systems in the process of updating and improving the content and structure.

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