

APPLICATION OF CONTENT ANALYSIS FOR THE INFORMATION RESOURCES GENERATION IN THE ELECTRONIC CONTENT COMMERCE SYSTEMS

A.Yu. Berko, V.A. Vysotska, M.M. Sorokovsky

Lviv Polytechnic National University, Information Systems and Networks Department

Problems (terms of reference) of the information resources processing in the electronic content commerce systems are topical through the active research development in the e-business field and the lack of theoretical justification of standardized methods and the unification of software tools for the content generation, management and maintenance. There are new approaches / solutions to this problem but there is an inconsistency between the known technology of the information resources processing and the principles of the electronic content commerce systems development. There are no general approaches for these systems engineering, their generic architecture type and the unified methods of content generation / management / maintenance.

The relevance derives from the e-business globalization; demand growth for commercial content and quick access to it; irregularity in the business processes functioning in accordance with the regions; the need to promptly / regularly / periodically obtain the necessary content; saving time / resources to obtain the required content; personalization in service delivery and integrity of electronic content commerce systems. The advantages of these systems implementations involve increasing the efficiency of the content obtaining; reducing the production cycle and sales of the commercial content; reducing costs associated with the content exchange; openness for the users; automatically informing the users interactively; the creation of alternative sales channels.

The feature of the electronic content commerce use is openness (access for all companies / users), globality (access from anywhere), unrestrictedness in time (access anytime), straightforwardness (low barrier to the market entry) of the system processes, direct user interaction (reduction of distribution channels and the elimination of the intermediate links); automatic requests processing and tracing information about users, reducing the costs of the e-business functioning and the provision of additional information in the interactive mode.

Content is the basis of the online magazine in which a user carries out a search to obtain the necessary information. But texts are full of the key words and it is not always sufficient to ensure the user has received the necessary information. In addition, the keyword spotting for each article is long and time consuming process. Through the formalized method of the content analysis the process is fully automated and happens when the authors add a new article. They determine the similar articles to those seen by the user and display them. Using keywords the user receives not entirely similar article, or not similar to what he is interested in (to increase the popularity of the article the authors add keywords on various topics). The advantage of using content analysis is the content determination for a specific request, for example, the detection of the content absence on a certain topic and focusing the authors on the development of this issue.

In the online magazine there is implemented the article distribution. At the entrance there are the raw articles that are sent to the articles processing unit. According to the rules in the form of search parameters, dates and keywords of the viewed articles the article distribution by the categories (popular, similar, selected in the search result or last reviewed) is made and they are placed in the database. The process is controlled by the administrator. Developed articles are introduced into the blocks for the popular articles search (with the most reviews), last reviewed (by the publication date within the period from the set to the current date), parametric (according to the user settings) and similar (by the keywords from previously reviewed articles by the user) and the result is displayed.

Developed articles get into the search block for the matches of the keywords previously reviewed by the user. The generated list of articles is sorted by the number of matches for further screening that is most similar to the reviewed one by the author. The first articles are selected the number of which is specified in the system settings. Further work of the article author, currently under review, is moved to the top of the list and displayed for viewing by the user.

The article dwells upon the development of the unified methods of the information resources processing in the electronic content commerce systems. The formal model and generalized typical electronic content commerce system architecture is developed. The design methods and methods of the electronic

content commerce system implementation on the example of the online magazine are developed. This magazine reflects the results of theoretical studies.

Keywords - content, information resource, electronic content commerce systems.