

THE MEANS STRUCTURE OF INFORMATION RESOURCES PROCESSING IN ELECTRONIC CONTENT COMMERCE SYSTEMS

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Some of principal problems of electronic content commerce and functional services of content processing are analyzed in the article. Proposed method gives an opportunity to form resources processing tools for electronic commerce systems so as implement subsystems for content formation, management and support.

Keywords – information resources, commercial content, content analysis, content monitoring, content search, electronic content commerce systems.

У даній роботі проаналізовано основні проблеми електронної контент-комерції та функціональних сервісів опрацювання контенту. Запропонований метод дає можливість створити засоби опрацювання інформаційних ресурсів в системах електронної контент-комерції та реалізувати підсистеми формування, управління та супроводу контенту.

Ключові слова – інформаційний ресурс, комерційний контент, контент-аналіз, контент-моніторинг, контентний пошук, система електронної контент-комерції

Entry. General statement of the problem

The basis for the design of the complex processing of information resources in electronic content commerce systems (ECCS) a three-level architecture client/server [1] was selected. The process of the content processing occurs on a “client-server application – database”. The request is processed by an application server that communicates with the database and payment system, and when you are connected to the business process of the organization communicates with the appropriate systems. From a technical point of view ECCS is a combination of Web-showcase as a front system and a trading system as the back-office. The main functions of ECCS are information service of the purchaser, order processing, payments, collection and analysis of statistical information.

Connection issues with important scientific and practical tasks

Active development of the Internet has increased the need of operational data production/strategic nature and implementation of new forms of information services [1]. Documented information prepared in accordance with the needs of the users of an information product or commercial content and the main object of processes of electronic content commerce. The treatment benefits of information resources by means of ECCS stipulated by the growth in the volume of content on the Internet, the rapid development of electronic business, rapid growth of Internet accessibility, expanding of the set of information goods and services, increased demand for commercial content [1-9]. Principles and techniques of electronic content commerce are used when creating the online stores (selling eBooks, Software, video, music, movies, picture), on-line systems (newspapers, magazines, e-learning, publishing houses) and off-line distribution of content (copywriting services, Marketing Services Shop, RSS Subscription Extension), cloud storage and cloud computing. In this area are working the world's leading manufacturers of means of information resources processing, such as Apple, Google, Intel, Microsoft, Amazon, Android, Opera. Factors that hindered the implementation of

information resources processing in ECCS associated primarily with the lack of scientifically based methods and tools for creating, administering and maintenance of content [1]. A number of scientific studies is dedicated to this area. In particular, in his works D. Lande researched and developed mathematical models of electronic information [2, 3, 6, 7]. G. Zipf proposed the empirical law of distribution of word frequencies in natural language. In the works of B. Boiko, S. McKeever, A. Rockley the models of content life cycle were describes. The methodology of content analysis was founded and developed by J. Kaiser, Glaser, H. Lasswell, O. Holsti. The EMC Corporation, IBM, Microsoft, Alfresco, Open Text, Oracle and SAP have developed specifications of Content Management Interoperability Services for Web services interface that enables interoperability between content management systems of e-business.

Analysis of recent research and publications

The ECCS software forms the interface with the buyer, and the system functionality based on the company needs. A potential customer has the opportunity to get answers to any question at any time (conditions of after-sales service, advice on the payment specifics, etc) that accompanies the process of buying/selling. Registration/authorization occurs before/after content selecting. In the first case you create a registration entry for ECCS customers for whom you are implementing a special scheme of service and payment. The possibility of registration after selecting the content allows the buyer to remain anonymous and saves time. The system protects the personal information of the buyer, using data transmission over secure channels. ECCS receives full information about Web site visitors that allows you to build marketing system in accordance with her. CMS allows you to collect a lot of statistics for analysis and use it operational (allow to identify areas of our site that are optimal for advertising information, automate the course of the advertising campaign). The publication of additional information is implemented using a separate application server (the area of publications) and electronic databases. ECCS must support the content lifecycle. ECCS involves using IT to communicate trading companies with retail customers, providing a full cycle of content sales. In ECCS the participants are much wider, except for users (sellers, buyers) it includes a number of financial institutions (the issuing Bank, the Bank of the seller/buyer, the acquiring Bank), computer centers, etc. Users are primarily individuals and institutions, social institutions, other types of consumers (legal entity). Sellers in ECCS are different organizational forms of the trade content. The communication network consists of providers, servers, processing centers. The delivery system is the Internet. All components interact in a system of relationships. This is the guarantee of stability and reliability of ECCS. The important elements of ECCS are organizational forms of electronic content commerce, having a single focus onto retail sales providing, but differ in the composition, structure, purpose in ECCS. ECCS provides the introduction, the selection of content categories, checkout, payments settlements, tracing the execution of the order. For the SECC operation has hardware and software components: Web-storefront (front office) on the Web server; electronic catalogues; payment system; CMS. Web-showcase has an active content, is based on the conventional static HTML files or dynamic with the display of the database content. Web-showcase contains information about the name, the profile, the status of the ECCS owner, the range of content and services, means of payment, discounts, guarantees, and terms of content delivery.

Problems allocation

The issues of design, creation, implementation and maintenance of electronic content commerce is relevant, taking into account such factors as the lack of theoretical justification of standardized methods and the need for the standardization of software tools to process information resources. There is a mismatch between methods and means of the information processing resources and the principles of systems of electronic content commerce construction. One of the urgent tasks in the framework of this problem is the development of a common model structure of electronic content commerce.

Statement of purpose

The aim of this work is the definition of functional requirements to subsystems of processing of information resources in ECCS, such as the formation, management and support of commercial content. The subsystem of commercial content development provides facilitates the work of the ECCS author and moderators. The subsystem of content management facilitates the work of the administrators and moderators of ECCS, and supports a variety of functionality for users of these systems. The subsystem of content support makes work easier for ECCS analysts.

Conclusions and further research prospects

In article the general principles of structure construction of electronic content commerce systems, that are implemented formal models of information resources processing. The general architecture of ECCS, described in this work, is developed to facilitate the implementation stages of the life cycle of commercial content. General design principles of ECCS architecture are proposed to implement the information resources processing to reduce the production cycle, time saving and e-commerce empowering. In the work on the basis of the analysis of the ECCS basic tasks the tools, information technologies and software to build such systems are analyzed and summarized. The functional scheme of ECCS with subsystems of information processing resources is developed. The overall architecture of ECCS is describes in detail, its tasks and principles of realization. The most important functional elements of the system and patterns of action of the main mechanisms according to GOST 24.204.80, GOST 24.201-79, 19.201-78, GOST 34.602-89, IEEE Std 1233, 1998 Edition, IEEE Std 830-1998 are described. The software for generation, management and content support are developed. The software implementation of SECC is described, including subsystems of information resources processing for the organization of e-commerce in online newspapers and online magazines.

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