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### INTER-CORPORATE MODEL THE MEDIA CONTENT ORGANIZATION FOR SCIENTIFIC AND TECHNICAL LIBRARY OF EDUCATIONAL INSTITUTION

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Assign of measures on search optimization for raising the positions of information portal for scientific and technical library of educational institution is presented. The ways of digitized funds updating with use of resources of the profile institutions are described for raising the professional level and activating the cognitive activity of student as the target user of library web site. The analytical apparatus and browser engine of client-server environment of interactive access to structured training-methodical content are presented.

**Key words:** *scientific and technical library, information portal, structured media content, online services, vocational education, subject area, data flows, specialized institutions, external knowledge base.*

Transition of educational services to qualitatively higher level allows comprehensive measures to scope application expand the information and communication technologies in organization of academic courses and independent work of students, the knowledge control and certain stages of administrative activity of the higher education institution. In recent decades, sources of information provided by the scientific and technical libraries of academic establishments as compilers of existing book collections have

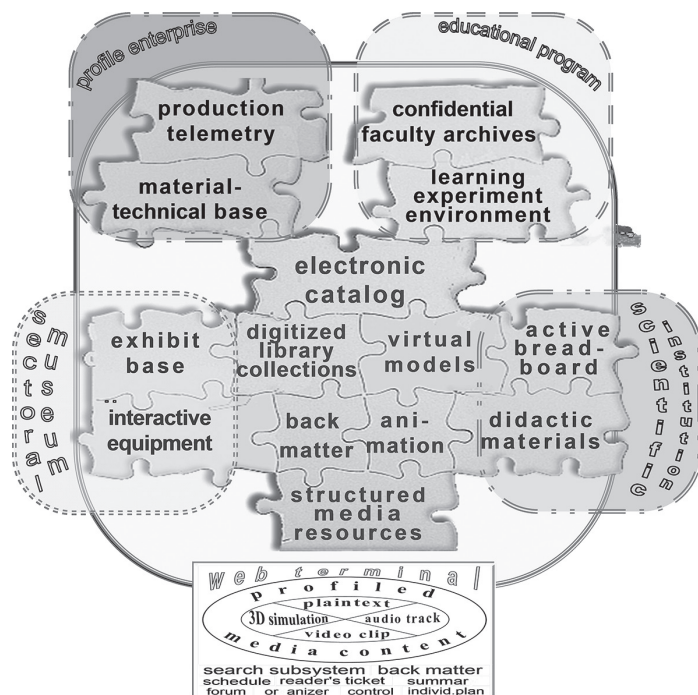
undergone almost the greatest changes in the history of written language. For profiled reader categories, it's not necessary to flip through a paper catalogues to find the correct edition ID. And thus, in general, there is no need to physically lie within the library premises. For the rapid tracking of library funds from their order and acquisition to the issuance for library visitors are widely used automated systems for planning resources for bookshops.

However, a overwhelming majority of the widespread integrated library systems does not fully provide the cognitive and research work of the student as a key subject of educational process and an integral part of modern information society. When designing the modern library management systems, inadequate attention is paid to specifics adapting of particular institution of higher education, including inclusive, does not take into account all nuances of competencies developing of future engineer, which will be useful in realization of his professional duties [1]. This state of affairs is due to inconsistency of data flows in different departments of educational institution and their almost complete absence among specialized establishments [2]. In general, cross-sectoral libraries activities are covered by number by home and foreign researchers. However, the aspect of attracting a other academic departments resources, as well as detached organizations of the profile industry, remains almost unexplored [3]. Therefore, timely and relevant is system analysis need and further design of client-server environments for interactive access to the actual complex educational and methodological content that would occupy an important place in the system of marketing promotion of library online services and consolidation of competencies and activation of cognitive activity of students of technical specialties.

In order to correctly combine these factors and increase the range processed data formats, the presented research regard an original model to media content organizing for information portal by scientific and technical academic library as a tool for coordinating learning processes of height education institution units on the one hand [2] and cultural, enlightenment, and research branches establishments on the other [2, 3]. Along with their own digitized collections, third-party information resources of these institutions substantially expand the range of network education services provided by the library; means of access to them are concentrated on its web site (Figure).

First of all, in preparation of on a certain educational program specialists, presented project proposes to extend the scope of unpublished scientific and methodological confidential faculty archives that are not provided entirely, but fragments of interim publication version, in accordance with subject area keywords in search query. Typically, access to these electronic resources has a limited category of students in just a certain training sector, which is authorized in the chair network [4]. However, individual fragments, allowed by the author, are indexed in the search subsystem of the electronic catalog. The content of such funds itself is incomplete and specified during the semester.

Another important source of external resources in relation to the library collections storage is the virtual learning experiment environment, which provides the results of laboratory studies in the form of visual aids in appropriate industry [5]. Also, an interactive virtual laboratory distributes the computing powers to support spatial simulations, screen scenes grabber, and possible voice over [4].



Given that the goal of professionally oriented education is based on requirements of the profile enterprise, where is formulated in accordance with the industry and social needs, the prompt provision of relevant production information by the library resource will significantly increase the effectiveness of marketing promotion of library online services. A robust information channel with corporative databases [5] will always provide real displays of production telemetry. Received during the technological process, this telemetry and the established attributes of executive mechanisms and objects are systematized in the form of external resources, and subsequently adapted to the internal protocol of the computerized information library system [2]. In the presented model, the network mechanisms for integrating the accumulated information of enterprise material-technical base into library collection of training reference publications are also defined and expanded.

Similar to the profile enterprise information resources to enhance the research activities of future professionals provide industry-specific scientific institutions. Here, didactic materials are provided in refined national standards form, technological instructions, consolidated norms of expenditure and standards of waste, normative/design documentation. An important extension of the last paragraph is the design drawings to accompany the spatial active breadboards of existing models that are widespread as equipment in branch.

Close cooperation the sector museums with academic institutions and the adaptation of curricula to existing profile collections necessitates the introduction in website of scientific and technical library the analytical apparatus for treating third-party information resources [6]. Such direct access to exhibits database will help to intensify the independent study or critical evaluation of scientific and methodological sources, mastering the methods of phenomenon analysis and professional problems, forming self-education skills and collective creative discussion of results.

The remote operation of museum interactive equipment, which will help to clarify the competencies acquired during the educational process, will significantly help the admission of students to the achievements of the national and world historical and cultural heritage. The given approach, in particular operatively applied on a multimedia lecture of a professionally-oriented discipline, will increase the efficiency of development of

professional skills and educate the respect for subject area and for the greatness of engineering thought.

Therefore, browser-based organization of odd content of a website based on its own digitized collections and third-party inter-corporate resources using an existing engine provides automatic content markup, for example plain-text in the form of HTML / XML or portable document format files, graphic illustration files, 3D simulations for virtual model, audio tracks, video clips and the like. The following content, after appropriate formatting, describes the appearance of the pages by means of Cascading Style Sheets, is serialized by converting the processed data stream into bits sequence. The following content, after appropriate formatting, describes the appearance of the pages by means of Cascading Style Sheets, is serialized by converting the processed data stream into bits sequence. Facilitate bibliographic processing and navigation in the newly created structured media resource the automatically-edited publication back matter with saved hyperlinks to the corresponding media resources will help. Newly object is output to end-terminal adapted in suitable form for recipient, where the graphics device interface dynamically generated profiled media content is displayed on the window of the viewer [4].

As an organic component of scientific and educational information space, the library website viewer within one-page application provides the authorized recipient with controls in accordance with its area of responsibility. In any case, in addition to specified search subsystem and back matter, can display the appropriate version of class schedule, go to reader's ticket or summary with notes, adjust personal organizer, and call the knowledge control environment or individual plan of foreseen academic disciplines, contacts at academic forum.

It should be noted that in the projected inter-corporate model the media content organization for scientific and technical academic library information portal it is also advisable to provide feedback: depending on mutual use agreements of intellectual resources, the academic library media content can be used by authorized employees of enterprise or museum, research staff in the profile guest with extended authority in group policies.

Thus, the inter-corporate model of profiled media content organization on the cross-platform mobile web-terminal of information portal of the scientific and technical academic library is as main means of communicating

recipients with educational materials in computerized information library system and a flexible tool for effective marketing promotion of academic and library sites. The further development of this concept should be focused on integrating the adaptation mechanism of structured content into the needs with disabilities students, which will improve the educational structure of institution and raise the quality and extend the range of library online services provided.

The researches described in the article are tested in the computerized learning environment KoHaC and information library system Ki6iC, which are developed at Department of Automation and Computer Technologies of the Ukrainian Academy of Printing. Author thanks the Ukrainian Research Institute of Polygraphic Industry to them. T.G. Shevchenko, the Training and Demonstration Center Heidelberg and the Museum of Ancient Ukrainian Book Art for the information resources provided.

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## МЕЖКОРПОРАТИВНА МОДЕЛЬ ОРГАНІЗАЦІЇ МЕДІА-КОНТЕНТА ДЛЯ НАУЧНО-ТЕХНІЧЕСКОЙ БИБЛИОТЕКИ ОБРАЗОВАТЕЛЬНОГО ЗАВЕДЕНИЯ

Т. В. Нерода

### Аннотация

Приведён комплекс мер по поисковой оптимизации для поднятия позиций информационного портала научно-технической библиотеки образовательного заведения. Описаны пути актуализации оцифрованных фондов ресурсами профильных учреждений для повышения профессионального уровня и активизации познавательной деятельности студента как целевого пользователя библиотечного сайта. Представлен аналитический аппарат и броузерный движок клиент-серверной среды интерактивного доступа к структурированному учебно-методическому контенту.

**Ключевые слова:** научно-техническая библиотека, информационный портал, структурированный медиаконтент, онлайн-услуги, предметная область, потоки данных, профессиональное образование, профильные учреждения, внешняя база знаний.

## МІЖКОРПОРАТИВНА МОДЕЛЬ ОРГАНІЗАЦІЇ МЕДІА-КОНТЕНТУ ДЛЯ НАУКОВО-ТЕХНІЧНОЇ БІБЛІОТЕКИ НАВЧАЛЬНОГО ЗАКЛАДУ

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### Анотація

Наведено комплекс заходів з пошукової оптимізації для підняття позицій інформаційного порталу науково-технічної бібліотеки освітнього закладу. Описано шляхи актуалізації оцифрованих фондів ресурсами профільних установ для підвищення фахового рівня та активізації пізнавальної діяльності студента як цільового користувача бібліотечного веб-сайту. Представлено аналітичний апарат та броузерний рушій клієнт-серверного середовища інтерактивного доступу до структурованого навчально-методичного контенту.

**Ключові слова:** науково-технічна бібліотека, інформаційний портал, структурований медіаконтент, онлайн-послуги, фахова освіта, предметна область, потоки даних, профільні установи, стороння база знань.