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"The automated means of building databases of books and journals for the sites ”

ABSTRACT

The purpose of work

The purpose of this work is to study the existing approaches of building sites of publications by building databases to practical use in the electronic version of the printed magazine of one of them.

The relevance of work

Currently, there is a rapid development of information technology. Scientific journals that supported the publication only in the traditional printed form, gradually losing its relevance because of the lack of access to their contents of a large audience of users. In order to increase popularity of the journal must be the work of printing books in the Web space. Using this approach, we can ensure more effective interaction between authors and editors, as well as reduce the physical, computing and human resources not only to create, and support issues.

Only if the site log in the web space does not allow the magazine have a very high popularity in the international scientific community. Now the world has abstracts database Scopus, which is determined by the specific rating of the magazine. Ukraine in the database contains 65,566 documents and has 33 in the world of 270 countries.

For inclusion in the database must comply with ongoing activity edition, which is a constant for new materials in the database and the availability of English-language abstracts of articles. The main demands made Scopus periodicals for inclusion in the database:

- Our own page publication on the Internet;
- List of editorial board members and board;
- Availability of English-language archive of articles on the numbers.

Thus, when creating the journal must do the following requirements:

1. Web-sites of magazines must have a unique IP address;
2. Web-site should be multilingual;
3. Site sections determined by the editorial board;
4. Typically, Web-sites (Web-portals) magazines implement the CMS, and therefore may perform additional functions: communication with the authors of articles journals, support the thematic forums, support for conferences on topics of the journal;
5. After creating the Web-site, it is transferred to the support of the chief secretary edition, which further fills the contents of the site and communicating with authors;

6. On commissioning of the site must follow the attendance by users.

The results of work

In this work we proposed three approaches to create a website magazine. Those in the approach can perform the following tasks:

1. Provide information on the editorial board and journal;
2. Provide interface for managing publications;
3. Provide multilingual site;
4. Create any number of thematic sections of the site;
5. Specify the necessary requirements for the authors to place of publication;
6. Provide operational work with editorial authors;
7. Implementation of the constant communication with the authors of publications of previous years of age.

Each of the three approaches discussed in the paper, have found their practical application in the construction of websites. The first approach is used on the site http://grid.kpi.ua . In this case, such an approach is most appropriate, as has already been previously created the site itself, but it was necessary to create a database with an interface that allows you to manage publications. The speed of this system is tsya high because the database holds a small number of requests. In this case the system runs the control content access site through the use of user authentication.

The second approach was used for site http://druk.kpi.ua/ . Earlier in editorial nonexistent any site, and therefore the basis was used content management system. As CMS has been used CMS Drupal, which allows using the API to create your own modules. In addition to the control module publications, such an approach allows you to create topics, information about the site, to provide multilingual support. You can connect additional modules or existing themes, placed with the official website CMS. But it is necessary to increase the speed of the site by installing modules, which would implement caching pages.

A third approach, which has been described previously, is intended to combine the advantages of the two previous approaches and minimize their weaknesses. The third approach involves the use of Zend Framework. Advantages of this approach are to create their own content management system, while the number of modules used in this system is minimal, but sufficient to fulfill the assigned tasks. When you need to expand the functionality of the system can create additional modules, which do not affect already existing in the system. For multilanguage had to make some changes only in one file.

Scientific novelty

For the first time developed several approaches build Web-sites with databases of magazines, which may be applied depending on the baseline and goals who wish to reach representatives of the editor.

Suggestions for further development

Current features of the site are the base for building magazines. The second and third approach to the implementation sites allow them to expand without disrupting ongoing.

Conclusions and recommendations

Having systemized data of scientific journals, their implementation, formulating the basic approaches to their content, requirements for their design, in the course of this work were developed approaches that implement the functionality of scientific journals.

As a result of the experiments it was determined that the best approach to create electronic versions of printed magazines is to use the CMS. This approach allows us to expand the functionality of the site, centralized updating of existing modules to enhance their capabilities, as well as security.

The work on the 124 sheets contains 4 tables, 47 illustrations and 3 applications. By preparation of work the literature from 12 different sources was used.

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