DEVELOPMENT MANAGEMENT

Methodology for developing an information site with Workflow support for publishing articles

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Abstract. The Workflow system is an effective solution to the task of optimizing information flow in the electronic publishing system, which can reduce the number of errors and optimize the process of publishing articles. The purpose of this article was to create a methodology for developing an information site for web publishing. To achieve the goal of the research, scientific methods of generalization, classification, deduction and analysis were used. A problem-solving tree has also been created. The ultimate goal of overcoming this problem is the development of an information site with Workflow support. The study outlines the general structure of sections and subdivisions of the information site. In the context of this article, a methodology was developed to support the process of publishing articles on an information site based on the use of a modern content management system. For this purpose, the key criteria for a basic decision-making model for choosing a content management system were proposed and a rating of free content management systems was given. As a result of the analysis of the proposed criteria, it was concluded that the Joomla tool environment should be used to support web publishing processes. The paper compares the components of the work flow organization on the information site. An algorithm for selecting a component for organizing the workflow has been created. In order to create a site with Workflow support for publishing articles, the stages of development were planned, a list of criteria, based on which the development should be carried out, was proposed and a structural diagram for creating such site was given. The limitations of the created methodology for the development of an information site, which may arise in the process of practical implementation and adoption of relevant management decisions, are considered. The practical result of the work is recommendations for web developers to create an information site with Workflow support for publishing articles

Keywords: algorithm, problem-solving tree, interface, basic decision-making model, content management system

● INTRODUCTION

In order to provide users with interesting and relevant information in a convenient and attractive form, a modern web publishing house cannot do without the joint cooperation of specialists. The coherence of their work is not possible without modern means of managing work processes. The process approach forces the management of the publishing house to focus on the rules and interactions of the process participants since these aspects are the main centres of losses due to their blurring and uncertainty. Within the automation of individual functions, the need to have tools for automatically tracking the sequence and time of their execution, document routes, hiring of employees at various stages of the process, etc., led to the idea of creating Workflow class systems. Implementation of Workflow can reduce the number of errors and optimize the process of publishing articles on the information site of a web publisher. Given that the main channel for publishing articles is the site, Workflow should be quite closely integrated with it, and preferably be an integral part of it.

An important role in the modern information space is assigned to the search for information. Today, there is an increase in the desire of people not only to perceive information, but also to express their opinion about what they have read or seen.

That is why publishing houses offer their clients an alternative to classic printed publications – electronic ones. These can be analogues of books but in electronic format, sites with paid and free access to texts, images, video and audio, and so on. An alternative to newspapers and magazines is information sites. Information on them can be available both for free and as part of a subscription.

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In contrast to the years 2000-2005, when authors' blogs were rapidly developing on the Internet [1], now it is very difficult to quickly provide information in a user-friendly form. Such task requires the work of several authors and other specialists, for example, an editor, a photographer and a specialist in search engine optimization. The quality and speed of publication of articles on the site depends on their coordinated work. For the medium or large publishing houses, implementing a workflow is a must. Such publishing houses have the funds and dedicated specialists to implement and maintain the workflow. A small online publisher may not have the funds for such task.

That is why, using a content management system that would support the workflow or have special modules for its organization is an important task. Such system can reduce costs and time for implementation and increase the coherence of the work of all the participants in the publishing process.

The specified aspects determine the relevance of the issues of developing an information site with Workflow support for publishing articles.

In studies [2-4], recommendations are provided regarding the visualization of components of information sites and electronic publications and the factors influencing the use of the interface based on mobile applications are proposed. But these studies lack a list and analysis of criteria for a basic decision-making model regarding the choice of a content management system for an information site with Workflow support for publishing articles.

Scientific works [5-7] are devoted to the problems of creating web-based components of information sites. Large-scale model-driven engineering of web user interaction and the specifics of content marketing for information sites and electronic publications are considered. However, these works do not take into account the concepts and capabilities of the main components for the organization of the work process.

Some issues of quality assessment of the development of information sites and optimization of the interface are raised in works [8-10]. However, in these works there are no criteria for evaluating the effectiveness of the process of developing an information site with Workflow support.

The analysis of the main technological aspects of improving the process of developing information sites is given in scientific works [11-13]. At the same time, these works do not provide recommendations regarding possible options for creating an aggregated technological scheme, according to which it was possible to develop a site with support for Workflow for publishing articles.

Studies [14-16] contain methodological principles for optimizing site loading speed which, at the same time, do not take into account the basic principles and features of optimizing components for organizing the workflow of information sites.

Studies [17-19] describe algorithms for optimizing workflows for solving certain production tasks. However, the research data does not provide insight into the directions of optimization of workflows for the publication of articles.

The scientific article [20] proposes a method of developing an information site for creating 3D advertising, which, howe bver, does not take into account the components of the organization of the work flow on the information site.

The purpose of the article was to design a methodology for developing an information site with Workflow support for publishing articles.

The tasks of the research were as follows: 1) justification of the main criteria for the basic decision-making model regarding the choice of a content management system; 2) development of a component selection algorithm for the organization of the work process; 3) development of a structural diagram of the website creation technology with Workflow support for publishing articles.

● MATERIALS AND METHODS

In accordance with the objectives of the research, the main stages of the scientific work were: 1) formation of the general structure of sections and subdivisions of the information site; 2) studying the rating of free content management systems; 3) selection and justification of the main criteria of the basic decision-making model regarding the choice of the content management system; 4) creation of a basic decision-making model regarding the choice of a content management system; 5) comparison of the components of the work process organization on the information site; 6) creating an algorithm for selecting components for organizing the work process; 7) allocation of stages of development of an information site with Workflow support for publication of articles; 8) formation of a criterion base for the development of an information site with Workflow support for the publication of articles; 9) development of a structural diagram of the website creation technology with Workflow support for publishing articles.

The following research methods were used in this article to implement the set scientific tasks: 1. generalization. With the help of this method, the general structure of sections and subdivisions of the information site were formed and a basic model was created for making a decision on the choice of a content management system and for developing a structural diagram of the website creation technology with Workflow support for publishing articles; 2. classification. This method was used to highlight and substantiate the main criteria of the basic decision-making model regarding the choice of a content management system and the formation of a criteria base for the development of an information site with Workflow support for publishing articles; 3. deduction. With the help of this method, the creation of an algorithm for selecting components for the organization of the work process, as well as the selection of the stages of the development of an information site with Workflow support for the publication of articles, were carried out; 4. analysis. This method made it possible to study the rating of free content management systems and to compare the components of the work process organization on the information site.

● RESULTS
Study of the ways to create sites
All methods of creating sites can be conditionally subdivided into 2 main groups. The first group of methods of creating sites are methods of manually writing sites in one or more web programming languages, while the work can be carried out both in simple (text) and visual HTML and CSS editors, as well as in program writing (used in the absence of web skills – programming).

In the case of creating a static site, the use of HTML and CSS "links" with the possible inclusion of Javascript will be quite sufficient for manual writing [6]. To create a dynamic site is not possible without server programming languages, such as PHP, ASP.NET, etc.

When using "manual" methods of creating a site, the site design (graphic design) is also created manually. For these purposes, any graphic editors are used as desired. Ready-made design templates, both paid and free, can be manually edited.

The second group of site creation methods includes automated site creation methods such as using special site builders or content management systems (CMS). The most popular content management systems are Joomla and WordPress.

In addition to content management systems, there are online site builders. Site builders are systems that allow you to "assemble" a site from a ready-made standard set of modules and components and immediately place it on the Internet.

The manual site creation method has an undeniable advantage: by creating a site manually, you can always get the desired result. But manual site creation methods are quite complex because they require a wide range of knowledge in the field of web programming and site design.

The development of an information site with Workflow support for the publication of articles should be carried out on the basis of generally accepted practice, which allows considering the creation of the site as a sequence of a number of stages [4; 5; 10]:

1. definition of project goals and objectives;
2. positioning of the project, definition of its role and audience;
3. development of the overall web strategy of the project;
4. development of a technical task for the object, its final estimate and work schedule;
5. development of the design concept of the site;
6. choice of website creation technology;
7. development of the layout (sketch) of the main page;
8. development of layouts (sketches) of internal pages;
9. development of design elements (logos, flash, fonts, etc.);
10. HTML version of the site;

11. development of additional functionality (scripts, "engines" and the like);
12. site content;
13. launching a trial version of the site, testing it and eliminating errors;
14. transferring the site to hosting, testing it and opening the site.

The goals and objectives of the project are formulated during work with the customer, this stage is informal and very responsible.

In the course of positioning, an analysis of the customer's activity is carried out, the audience is determined (for whom it is intended), analogues are selected and analyzed (their analytics are carried out). If there are resources (funds) to determine the possible audience (circle of users), it is advisable to conduct a sociological study.

The web strategy should contain information about the goals and objectives of the resource, analysis of competitors, developed recommendations for the structure and functional content of the site, as well as an exemplary plan for further promotion of the resource (analysis of competitors' actions, advertising, promotion, exemplary activities and budgets). The development of such strategy significantly helps at all stages of the project life cycle.

Structuring the process of creating an information site with Workflow support

There are various ready-made systems for the implementation of the workflow in the publishing house, which, at the same time, are designed for medium and large publishing houses. It is not advisable for a small web publishing house, which only has a website and consists of 5-10 employees to implement such systems. Developing your system will also cost quite a lot. The best option is to choose a content management system with built-in workflow support. This provides an opportunity to significantly reduce costs and time to implement the workflow.

Figure 1 displays a problem resolution tree. The ultimate goal is to develop an informational website with Workflow support for publishing articles. The general structure of sections and subdivisions of the information site is as follows (Fig. 2).
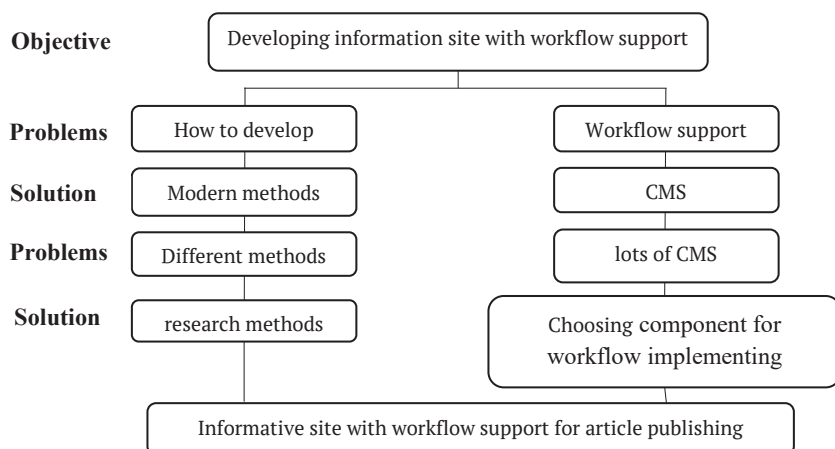
Figure 1. Problem-solving tree
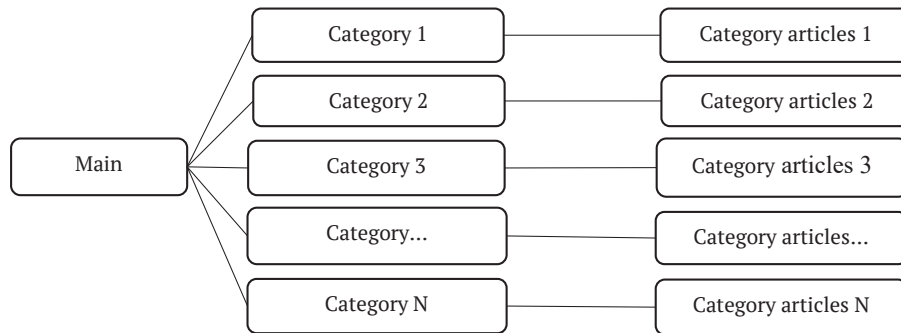
Source: the authors' development

Figure 2. General structure of sections and subsections of the information site

Source: the authors' development

It should be noted that the structure is designed in such a way that it can be easily expanded "in all directions".

Analysis of content management systems for creating an information site
Development of an information site with Workflow support for publishing articles should be based on the use of a modern content management system (CMS). Research should choose a modern distributed content management system that can meet the needs of creating an information site and has built-in workflow support. It is advisable to research the popular free content management systems and find the most suitable one among them. Free content management systems provide all the necessary tools to create an informative site that is adapted for different devices. The analysis of specialized literature [1; 3; 7], which contains the functionality of these systems, made it possible to formulate the following criteria for the basic decision-making model: security; support; ease of use; productivity; manageability; possibility of interaction; customization options; built-in extensions; commerce.

A criterion for the presence of workflow support was also added. Information about the rating of free content management systems is presented in Figure 3.
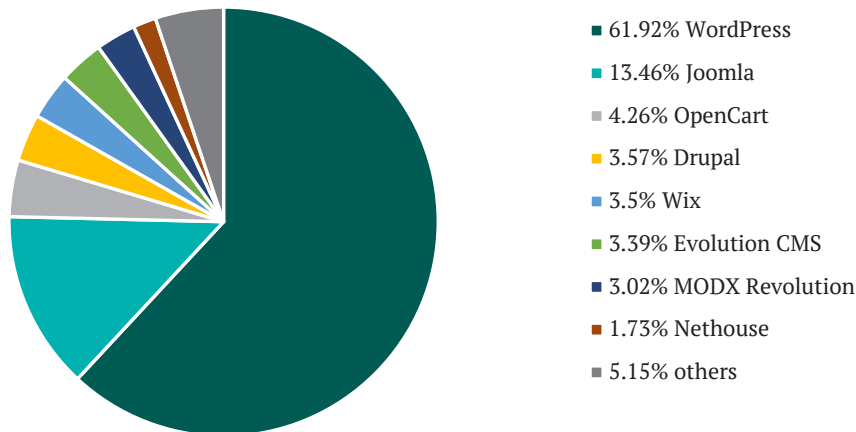
FREE CMS RATING

- 61.92% WordPress
- 13.46% Joomla
- 4.26% OpenCart
- 3.57% Drupal
- 3.5% Wix
- 3.39% Evolution CMS
- 3.02% MODX Revolution
- 1.73% Nethouse
- 5.15% others

Figure 3. Ranking of free content management systems

Source: [1; 3; 7]

To make a decision, Table 1 was formed, for which all selected criteria for dermal CMS were analyzed and ranked (on a scale of 1 to 3, where 1 is low implementation, 2 is average, 3 is high).

Table 1. A basic decision-making model for choosing a content management system

Criteria\Systems		Drupal	Joomla	WordPress
№	the name of the criterion			
1	security	2	3	2
2	support	1	2	3
3	ease of use	2	3	2
4	productivity	2	3	1
5	manageability	3	3	3

Criteria\Systems		Drupal	Joomla	WordPress
№	the name of the criterion			
6	possibility of interaction	2	2	2
7	customization options	2	3	3
8	built-in extensions	2	3	2
9	commerce	1	3	3
10	workflow support	2	3	2
	Total:	19	28	23

Source: [1; 3; 7]

Based on the data obtained in Table 1, it can be concluded that we should use the Joomla tool environment to create an information site with Workflow support for publishing articles. Table 2 shows the comparison of the components of the work flow organization on the information site.

Table 2. Comparison of basic features of software products

Software products Basic signs	Component "Processes"	My Content & Workflow	Joomflows
Cost	Free	2260 UAH	12675 UAH
Joomla 4 support	+	-	-
Materials component support	+	+	+
Translated into Ukrainian	+	-	-
Technical support from the developer	-	+	+
Sending letters when the status changes	+	+	+
Create multiple workflows	+	+	+
Creating multiple object statuses	+	+	+
Expansion of functional capabilities due to plugins	+	+	+
Demarcation of access rights	+	+	+
Total benefits	8	7	7

Source: [10]

Based on the preliminary review of content management systems and components for organizing the workflow, the authors presented the algorithm for selecting the appropriate component (Fig. 4).
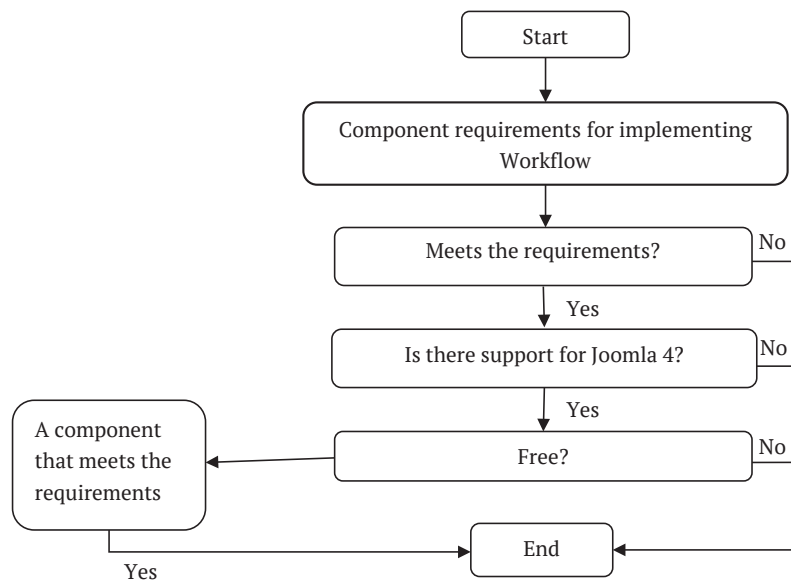

Figure 4. Algorithm for selecting a component for organizing the workflow

Source: the authors' development

Based on the results of research and algorithm work, the optimal component for the development of an information site with Workflow support – "Processes" – was chosen.

Methodical principles of developing an information site with Workflow support for publishing articles
After choosing a content management system, additional extensions and a workflow component, it is advisable to move on to planning the stages of developing an information site with Workflow support for publishing articles: content preparation (texts, photos); installation and configuration of the local server; installation on Joomla settings; installation and configuration of the site template; installation and configuration of additional Joomla extensions; creation of the main page of the site; settings of the "Processes" component; creation of news pages; creation of a contact page; site testing in a local server environment; making corrections to the website based on the results of testing.

The development of an information site with Workflow support for the publication of articles should be carried out taking into account the following list of criteria (Table 3) proposed by the authors and based on the systematization of literary sources [2; 8; 11]:

Table 3. Criteria for the development of an information site

Criterion	The practical significance of the criterion for the development of an information site
responsive design, mobile version or mobile application	provides a visual perception of the site
availability of the AMP version	contributes to the mobile version of the site
availability of site search	gives navigation capabilities
work on the https protocol	makes it possible to process hypertext information
the possibility of registration on the website	gives the possibility of registration on the website
availability of news categories	makes integration with news resources
the ability to comment on articles	provides feedback to users
the presence of tables, diagrams, graphs, infographics, etc. in the articles	provides a visual perception information of the site
availability of links to the RSS feed, website pages in social networks, channels in messengers, etc.	responsible for integration with social networks
the ability to configure the display of news of the desired topic by registered users	cuts off random site visitors
availability of information about the site administration	promotes feedback optimization
availability of contact information indicating the address of the site administration office;	
availability of a block with popular topics – "tag cloud"	
availability of site management tools for people with physical disabilities	ensures the provision of equal opportunities for access to site information
automatic display of recommended news based on user recognition or location	provides maximum orientation of site content to a specific user
the possibility of adding news topics to favorites (for registered users)	optimizes site content for registered users

Source: the authors' development based on the systematization of literary sources [2; 8; 11]

A consistent and logical website structure is an important factor influencing the user loyalty. Creating an interface design is one of the most important stages of development, which must be done before writing the software code. Errors in the structure of the user interface cannot be corrected during programming and, as a result, the product is created in the wrong way. At the same time, the correction of defects in the UX/UI interface with subsequent reprogramming will require the expenditure of significant resources.

The choice of the appropriate structure is made at the design stage and depends on the purpose of the site.

The structuring presented on the site is carried out on two levels: internal and external.

Internal structure defines logical links between web pages, in SEO this is called internal linking. A well-thought-out internal structure allows you to avoid situations such as the appearance of pages on the site in more than 3 clicks.

An external structure is actually a navigation scheme written into the design of the site, be it humans or robots, it is the external structure of the visitors. With the help of links, they gain (or lose) access to the information provided by the site. A carefully designed external structure not only facilitates page navigation, but also helps to promote sites in search engines.

The pages of the site have a simple and natural structure that is constantly connected to each other. On such website, navigation is mainly reduced to pointing to links to the previous and next pages – when moving through them, the user seems to be flipping through a book. Information on the site should be presented in the form of sections, blocks and buttons. Figure 5 shows the structural diagram of creating a site with Workflow support for publishing articles.
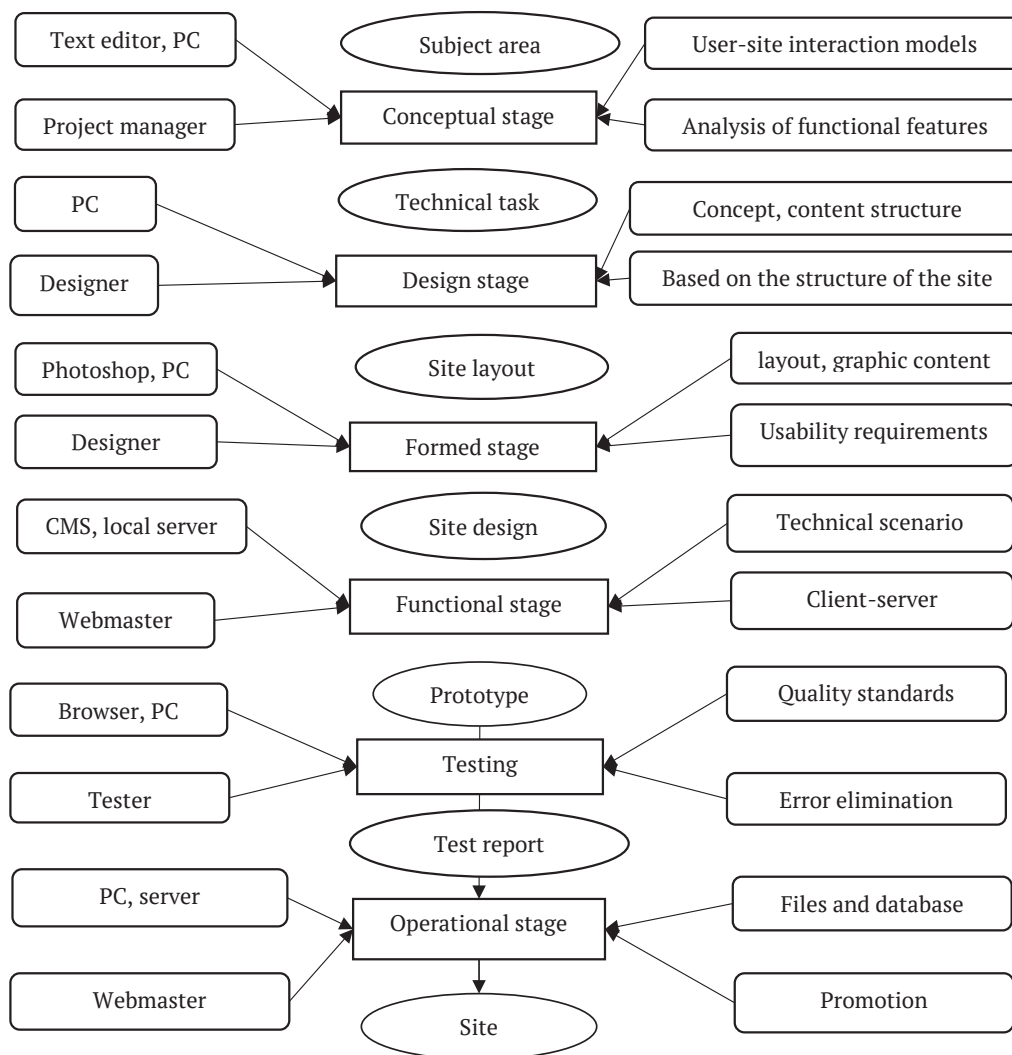
Figure 5. Structural scheme of creating a site with Workflow support for publishing articles

If needed, necessary changes are made to the technology, in agreement with the customer, until the project is finally approved.

The result of the research is an aggregated technological scheme, according to which a website with Workflow support for publishing articles was developed. Aggregation consists in simplifying each of the models and obtaining the most suitable stages from it, which makes this model more suitable for the development of small sites.

Simplification is achieved not only by reducing the number of stages, but also by simplifying each of them. Analysis and design are carried out superficially, and development is carried out using ready-made software, with minimal involvement of highly qualified programmers. For projects with a limited budget, this can give a much better result.

● **DISCUSSION**
The proposed methodological developments for the creation of an information site with Workflow support for publishing articles are continuation of the authors' research on the issues of information support of publishing processes. The designed technique can be used to manage the work processes of web publishing, as well as to assess the quality of multimedia publishing workflows and to provide information support for the creation of web resources.

In this work, as well as in studies [1; 6; 18], the process of creating workflows was algorithmized. A workflow component selection problem was detected while building the problem tree. Its solution was based on conducting a comparative analysis of existing Joomla components for the implementation of the workflow and creating an algorithm for selecting the appropriate component. However, in the mentioned studies [1; 6; 18], in the process of further creation of the information system, there are no tools to simplify the navigation of people with limited physical capabilities, third-party advertising is present, and there are no options for adjusting the display of site news according to the interests of each registered user.

In the conducted study, the organization of the work process of a web publishing house for the publication of articles is proposed. In studies [4; 7; 12] various ready-made information systems are proposed for the implementation of the workflow in the publishing house. But these information systems are designed for medium and large publishing houses. It is not advisable for a small web publishing house,

which only has a website and consists of 5-10 employees, to implement such systems. Developing your system will also cost quite a lot. The best option for a small web publisher is to choose a content management system with built-in workflow support, which was offered in this study. This provides an opportunity to significantly reduce costs and time to implement the workflow.

In addition, this paper considered an example of the publication of articles by a small author-editing team. In this work, the main problems related to the development of an information site with Workflow support for publishing articles based on an open source content management system and using a workflow component were identified. Scientific articles [10; 17] provide a review of work processes with a more classic employee structure for a larger publishing company.

In this work, as well as in studies [12; 20], algorithmization of the work process of multimedia publishing was created. To carry out the development, a study of recommendations for the implementation of modern web design and the direct implementation of these recommendations were carried out. However, unlike works [12; 20], this study took into account the opinions of leading experts in the field of multimedia publishing, regarding the formation of an algorithm for selecting a component for the organization of the workflow.

The limitations of the created methodology for the development of an information site with Workflow support for the publication of articles was that it does not take into account the likely situations of risk and uncertainty that may arise in the process of managing the information flows of a web publishing house and in the course of making relevant management decisions.

● CONCLUSIONS

The formation of the general structure of sections and subdivisions of the information site was carried out. A study of the rating of free content management systems was conducted. A tree of goals for solving the problem of organizing workflows for creating an information site with Workflow support has been created. The main criteria for the basic decision-making model regarding the choice of a content management system are identified and substantiated. A basic decision-making model for choosing a content management system has been created. A comparison of the components of the work flow organization on the information site was made. An algorithm for selecting a component for organizing the workflow has been created. The stages of development of an information site with Workflow support for publishing articles are highlighted. A criterion base for the development of an information site with Workflow support for publishing articles has been formed. The structural diagram of the website creation technology with Workflow support for the publication of articles has been developed.

The scientific result of the article consists in creating the method of developing an information site with Workflow support for publishing articles.

Further areas of research of the proposed method of developing an information site with Workflow support for publishing articles can be as follows: assessment of the effectiveness of user interaction with the information site with Workflow support for publishing articles; development of risk management techniques for the technological process of information support for the creation of a Workflow for the publication of articles; development of decision-making support methodology for improving the quality of web publishing workflow management.

● REFERENCES

[1] Martins, P. (2017). A web-based tool for business process improvement. *International Journal of Web Portals,* 9, 68-84. doi: 10.4018/IJWP.2017070104.

[2] Hrabovskyi, Y., Brynza, N., & Vilkhivska, O. (2020). Development of information visualization methods for use in multimedia applications. *EUREKA: Physics and Engineering,* 1, 3-17.

[3] Khamula, O.H., Soroka, N.V., & Vasiuta, SP. (2016). Factors of influence of interface use based on mobile applications. *Naukovi Zapysky Ukrainskoi Akademii Drukarstva*, 2, 28-36.

[4] Hryshchuk, R. (2017). Synergetic control of social networking services actors' interactions. *Recent Advances in Systems, Control and Information Technology*, 543, 34-42. doi: 10.1007/978-3-319-48923-0_5.

[5] Prinds, C., Hvidtjørn, D., & Moestrup, L. (2018). Prepress resonans mellem livets afslutning og livets begyndelse. *Tidsskrift for Forskning i Sygdom Og Samfund*, 15(30). doi: 10.7146/tfss.v15i30.112705.

[6] Sun, W.-T., & Lin, Y.-J. (2020). *Systematic review and discussion on final artwork of prepress design, education and awareness of sustainability*. Retrieved from https://www.worldscientific.com/doi/epdf/10.1142/9789811228001_017. doi: 10.1142/9789811228001_0175.

[7] Norris, D. (2017). *Content machine: Use content marketing to build a 7-figure business with zero advertising*. Scotts Valley: Create Space Independent Publishing Platform.

[8] Khamula, O.H., Soroka, N.V., & Vasiuta, S.P. (2016). Optimization of mathematical model of the impact factors hierarchy of the interface use based on mobile. *Polihrafiia i Vydavnycha Sprava,* 2(72), 28-35.

[9] Hrabovskyi, Y., & Fedorchenko, V. (2019). Development of the optimization model of the interface of multimedia edition. *EUREKA: Physics and Engineering,* 3, 3-12. doi: 10.21303/2461-4262.2019.00902.

[10] Lapkina, I., Prykhno, Y., & Lapkin, O. (2020). Content optimization of the development of multiproject of a shipping company. *Eastern-European Journal of Enterprise Technologies*, 2(3(104)), 50-57. doi: 10.15587/1729-4061.2020.199477.

[11] Safonov, I. (2018). *Adaptive image processing algorithms for printing*. Berlin: Springer. doi: 10.1007/978-981-10-6931-4.

[12] Gujari, R., Sahithi, C., & Parihar, N. (2020). Academic search engine optimization. *Journal of Critical Reviews*, 7(13), 1373-1376. doi: 10.31838/jcr.07.13.227.

[13] Aralova, N.I., & Kyiashko, O.Y. (2017). The method of technology evaluation based on improved cost approach. *Science and Innovation,* 13(3), 65-76. doi: 10.15407/scine13.03.065.

[14] Kapela, R., Guinness, K., & O'Connor, N. (2017) Real-time field sports scene classification using colour and frequency space decompositions. *Journal of Real-Time Image Processing,* 13, 725-737. doi: 10.1007/s11554-014-0437-7.

[15] Pushkar, O., Hrabovskyi, Y., & Gordyeyev, A. (2020) Development of a method for optimizing the site loading speed. *Eastern-European Journal of Enterprise Technologies*, 6(2(108)), 21-29. doi: 10.15587/1729-4061.2020.216993.

[16] Martin, R. (2016). Twenty challenges for innovation studies. *Science and Public Policy*, 43(3), 432-450.

[17] Schön, E., Thomaschewski, J., & José, M. (2017). Agile requirements engineering: A systematic literature review. *Computer Standards and Interfaces*, 49, 79-91. doi: 10.1016/j.csi.2016.08.011.

[18] Tronvoll, S., Popp, S., Elverum, C., & Welo, T. (2019). Investigating pressure advance algorithms for filament-based melt extrusion additive manufacturing: Theory, practice and simulations. *Rapid Prototyping Journal*, 25(5), 830-839. doi: 10.1108/RPJ-10-2018-0275.

[19] Aralova, N. (2017). The method of technology evaluation based on improved cost approach. *Science and Innovation*, 13, 65-76. doi: 10.15407/scine13.03.065.

[20] Hrabovskyi, Y., Yevsyeyev, O., & Pandorin, A. (2018). Development of a method for the creation of 3d advertising printing products. *Eastern-European Journal of Enterprise Technologies*, 6(2(96)), 6-18. doi: 10.15587/1729-4061.2018.147325.

Методика розробки інформаційного сайту з підтримкою Workflow для публікації статей

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Анотація. Ефективним вирішенням задачі оптимізації робочих потоків руху інформації у системі електронного видавництва є система Workflow, яка може зменшити кількість виникнення помилок та оптимізувати процес публікації статей. Метою даної статті було створення методики розробки інформаційного сайту для веб-видавництва. Для досягнення мети дослідження було використано наукові методи узагальнення, класифікації, дедукції та аналізу. Створено дерево вирішення проблеми, кінцева мета подолання якої є розробка інформаційного сайту з підтримкою Workflow. В дослідженні окреслено загальну структуру розділів та підрозділів інформаційного сайту. В контексті даної статті було здійснено розробку методики підтримки процесу публікації статей на інформаційному сайті на основі використання сучасної системи керування контентом. Для цього було запропоновано ключові критерії для базової моделі прийняття рішень щодо вибору системи керування контентом і подано рейтинг безкоштовних систем керування вмістом. В результаті аналізу запропонованих критеріїв зроблено висновок, що слід використовувати інструментальне середовище Joomla для підтримки процесів веб-видавництва. В роботі наведено порівняння компонентів організації робочого потоку на інформаційному сайті. Створено алгоритм вибору компоненту для організації робочого процесу. Для створення сайту з підтримкою Workflow для публікації статей проведено планування етапів розробки, запропоновано перелік критеріїв, на основі яких слід здійснювати розробку, наведено структурну схему для створення такого сайту. Розглянуто обмеження створеної методології розробки інформаційного сайту, які можуть виникнути в процесі практичної реалізації та прийняття відповідних управлінських рішень. Практичним результатом роботи є рекомендації веб-розробникам для створення інформаційного сайту з підтримкою Workflow для публікації статей

Ключові слова: алгоритм, дерево вирішення проблеми, інтерфейс, базова модель прийняття рішень, система керування контентом