ну гумористичну тактику можемо визнати маніфестом медіативної комунікації. Саме вона відтворює химерні візерунки калейдоскопу сміху українців, які, за цілком слушною думкою П. Загребельного, сміються з метою самозахисту, а розсмішити інших намагаються для того, щоб вони також облишили свою агресивність[15].

Отже, апелюючи до читачів-українців, вітчизняна журналістика свідомо вибудовує комунікаційну стратегію в гумористичному ключі, адже прагне емоційно розвантажити масив інформації, зробити її легкою для сприйняття масовою аудиторією.

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15 Див.: Кисельов С. Сучасність гумору (Полемічні нотатки). Українська мова і література в школі. 1981. № 1. С. 30-34.

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METHODS AND TECHNOLOGIES OF AUTOMATED PUBLISHING MANAGEMENT

The article examines key aspects of publishing process automation. Modern technological solutions are analyzed, in particular, content management systems (CMS), customer relationship management systems (CRM) and specialized layout software. The advantages of implementing automated systems, such as increasing efficiency, reducing time costs and minimizing errors, are described.

The modern publishing market is faced with challenges associated with accelerating production cycles, the need to optimize costs and diversify content. Traditional management methods can no longer provide the necessary efficiency. In response to these changes, publishing houses are increasingly turning to automated systems that allow them to manage all stages of work – from manuscript acceptance to the distribution of finished products.

Automation covers all levels of publishing activity. Its implementation allows to reduce manual labor, accelerate information exchange and provide a single database for all departments.

An important task of the publishing management system is to automate the editorial and publishing process based on the use of various software products. The basis of editorial automation is considered to be the editorial and publishing system (RVS), which is a single data repository for materials planned for a specific publication, as well as a means of building a technological chain of work on these materials. Materials can be presented in the form of text, illustrations, advertising modules or an entire block together with all its components: text, title, illustrations, etc. For each object at each stage of work, a responsible employee is assigned who works on the material at this stage, as well as a clearly defined stage, division or employee to whom the processed material should be transferred. Editorial staff have access to the system in accordance with their level of responsibility and competence. Modern publishing systems are a set of computer equipment, software and peripherals designed to prepare publishing products, which includes text typing, image processing, page layout and automation of the process of creating a layout for a book, magazine, booklet or other publication. The system provides the ability to register accompanying information, as well as log work with the object at all editorial stages[1]. Among them are systems for automating document flow and collaborative work with documents (Editorial or Publishing Workflow)[2].

Content Management Systems (CMS) are the basis for publishing automation. They allow you to centrally store, organize and manage all digital content: texts, images, audio and video files. CMS systems can automate the process of submitting manuscripts by authors, distributing them between reviewers and tracking the status of consideration. This significantly reduces the time previously spent on email and manual file sorting.

Automated tools for checking spelling, grammar, and style are built into many modern CMSs. They allow editors to work more efficiently with texts.

Content management systems (CMS) focus on organizing and managing content, which is the basis of publishing activities[3].

1 Shpak V.I. (2019). Management of modern publishing: a textbook. Kyiv: DE "Expres-ob'yava", 368 p.

2 Editorial Workflow: How to Streamline Content Creation for Maximum Efficiency/ (2025, September). *Cflow*. URL : https://www.cflowapps.com/editorial-workflow/

3 Content Management System, CMS. *WIX Encyclopedia*. URL : https://surl.li/wsjbvb

Although WordPress was originally developed as a blogging platform, thanks to a wide selection of plugins, it can be adapted to the needs of publishing. Plugins for managing manuscripts (for example, Editorial Manager), creating e-books (WP Ebook Maker), and managing subscriptions (WooCommerce Subscriptions) turn it into a full-fledged CMS. The platform is easy to use, has a large number of ready-made templates and plugins, and has a relatively low cost[4].

Drupal is a more flexible and scalable CMS compared to WordPress. It is ideal for creating complex web portals, for example, for scientific journals. Drupal allows you to create your own content types (for example, «article», «review»), configure complex workflows for reviewing and publishing. It has high flexibility, reliability, powerful tools for managing user rights[5].

CMS provides version control, which allows you to track all changes in the manuscript and return to previous revisions.

CRM (Customer Relationship Management) systems are critically important for automating marketing, sales and customer interaction. In the context of publishing, they allow you to:

– collect and analyze information about authors, their works, as well as readers: their preferences, purchase history.
– set up automatic mailings of news, promotions and personalized offers, which increases the effectiveness of marketing campaigns[6].

Automation has also affected one of the most difficult stages – layout. Modern programs (for example, Adobe InDesign[7]) have functions that accelerate the process of creating layouts. In addition, there are specialized solutions that allow you to automatically generate layouts based on pre-prepared templates, which is especially relevant for publications with a regular structure (magazines, scientific collections).

Dynamic layout: This is an approach in which the layout automatically adapts to different formats (printed book, e-book, mobile application) without additional manual settings.

4 What is WordPress and how to use it. Hostiq.ua. URL: https://hostiq.ua/wiki/ukr/wordpress-review/; Meet WordPress. *WordPress*. URL: https://uk.wordpress.org/

5 CMS Drupal: what is it, functional overview, pros and cons (2020, December 23). Interkassa. URL: https://interkassa.com/blog/cms-drupal-oglyad-funkcionalu-plyusi-ta-minusi

6 Customer Relationship Management, CRM. IT-Enterprise. URL : https://www.it.ua/knowledge-base/technology-innovation/customer-relationship-management-crm

7 Adobe InDesign. Adobe. URL : https://surl.li/rcvccr

XML layout: Using the XML markup language allows you to separate content from design. This means that the same text can be quickly «placed» in different formats using automated scripts.

To automate publishing processes, the market offers a wide range of software solutions that can be conditionally divided into three main categories: comprehensive platforms, specialized systems and tools for individual tasks.

1. Comprehensive ERP systems (Enterprise Resource Planning)[8]. These are the most powerful solutions that cover all business processes of a publishing house, from order management to financial accounting.

Odoo Publishing is a modular open source ERP system. Publishing houses can use its modules to manage sales (Sales), purchases (Purchase), inventory (Inventory) and projects. Specialized modules for publishing houses allow you to track manuscripts, manage rights, control the production process (printing, binding) and even keep records by ISBN codes. The advantages of the system include high flexibility and scalability thanks to open source, the ability to customize the system to individual needs, and the integration of all business processes into a single system[9].

Layout and design software automates the most important stage – creating layouts.

Adobe InDesign (and Adobe Creative Cloud) is the industry standard for layout of printed and electronic products. In combination with other Adobe products (Photoshop, Illustrator), it allows you to create complex layouts. Features such as InDesign Server allow you to automate layout by generating thousands of pages from a database (for example, for catalogs or encyclopedias). The Adobe Publish Online feature allows you to quickly publish interactive versions of documents on the Internet. The package has extensive functionality, integration with other tools, and high quality printed products.

QuarkXPress was the main tool for professional layout before InDesign. It remains a strong competitor, offering similar features, including automation and export to various formats. It is highly productive and has powerful tools for working with text[10].

8 Enterprise Resource Planning. Oracle Ukraine. URL : https://www.oracle.com/ua/erp/what-is-erp/

9 What is Odoo? We talk about its advantages and differences from other ERP systems. TODO. URL : https://todo.ltd/blog/shho-take-odoo-ta-chomu-my-zajmayemosya-vprovad/

10 Babak O.A. (2022). Desktop publishing system "QuarkXPress". International scientific journal "Grail of Science", 14–15. 287–289. URL : https://doi.org/10.36074/grail-of-science.27.05.2022.051

Scribus is a free, open-source typesetting program. It provides basic tools for creating layouts and preparing files for printing, including support for CMYK color profiles and exporting to PDF. However, the program has limited functionality compared to professional solutions and a less intuitive interface[11].

The most famous programs for organizing a common workspace and automating document flow solutions on the global publishing market are:

- Quark Publishing System (QPS) (developed by Quark, Inc., USA);
- K4 Publishing System (developed by SoftCare software, Germany);
- WoodWing Smart Connection (developed by WoodWing software, Netherlands);
- Scoop Editorial system (developed by Scoop Publishware, Sweden).

Such software allows you to receive real-time information about the progress and readiness of all materials or layouts used in the work, the ability to view, save versions of the original layouts and make edits at any stage of the work.

The QPS (Quark Publishing System) system is an independent software module (built-in plugin) for the QuarkXPress publishing system, which connects to the main program to expand its capabilities, and the simplest text editor CopyDesk, which allows only typing and editing text. With this plugin, the QuarkXPress package turns into a client layout place, and CopyDesk plays the role of a client text preparation place. This allows you to open files (call them from a common document repository), save and add files to the repository, organize documents into layouts and publications, and manage access rights to documents.

The new version of the QPS 3 system has carefully worked out the issues of interaction between the photo service, the editorial office, and the layout and layout department in terms of working with illustrations and photographs, and it has become possible to view the status of all strips of the publication in the form of a preview or display the status of the material areas using the ProductionTracking module[12].

The K4 Publishing System is a software product that directly supports the management of multi-user work and graphic files. It uses professional Adobe

11 Piskozub L. (2022). Scribus – a layout program for publishing systems: advantages of application in the educational process. *Ukrainian Journal of Library and Information Sciences, (6), 106–112. URL: https://doi.org/10.31866/2616-7654.6.2020.218616*

12 Simplify Content Complexity with Quark Publishing Platform and AI. Quark. URL : https://www.quark.com/products/quark-publishing-platform

tools as a platform. The use of basic Adobe product applications provides the possibility of phased development of the system's functionality and allows you to consider K4 as a solution that is potentially capable of covering all stages of the editorial and publishing process. The K4 system, similar to QPS, when installed on a client machine embeds its plug-in into Adobe's InDesign program.

The user has the ability to authorize in the system, call materials from the repository and save data and their versions. The sequence of production processes is clearly tied to the rights of individual users or entire groups, which makes it possible to determine responsibility for the performance of work at a specific stage, organize control of the responsibility of performers and managers of all levels for the timely performance of work.

The InCopy program, which is part of the system, is used as a text editor in the K4 system. It allows you to store prepared versions, track changes, and view the location of text on the document layout and changes in the layout design.

The data storage organization system helps to better protect information from unauthorized access, since access to data (texts, illustrations, and layouts) stored in a remote storage is available only to the server part of the system, the access rights to data in which are regulated by the internal security policy. At the same time, the system directories in which the data is stored may not only be inaccessible and invisible to the user, but may even be located outside the computer that processes the K4 system requests[13].

The WoodWing Smart Connection system is a system for organizing document flow, ensuring work with materials and documents by many users and controlled access to data, which is also based on Adobe products. The program allows you to build a scalable environment for conducting the technological process of data preparation and layout of complex publications and layouts. Like K4, the system consists of a set of plug-ins for the InDesign program, and the InCopy program is used as a text editor. However, unlike K4, WoodWing consists of components that are supplied separately and provide the implementation of interconnected, but fundamentally different functions.

In the new version of Smart Connection 4.0. interesting opportunities for working with the system using a standard browser have been further

13 Speed up your workflows. Vjoon. URL : https://vjoon.com/what-we-offer/overview-of-k4/

developed, elements have appeared that allow it to be used as an electronic archive of materials or "smart" documents. An interesting feature of the SmartConnection solution is its close integration with Microsoft Word and Excel packages, which allows users to work with the system using widely used office programs without the need to specially configure the workplace. Also, one of the strengths of the WoodWing Smart Connection RIS development policy is the availability and support by the developer of two versions of the program: an entry-level solution for small organizations – Smart Connection Pro and a solution for medium and large companies with complex business processes – Smart Connection Enterprise. These products differ in both functionality and cost, which allows customers to choose a solution that meets not only their tasks, but also their budget[14].

SCOOP Publishware AB's current product is SCOOP InaBox – a system for simultaneous work with many users with materials and publications, designed for use in small and medium-sized organizations. Among the features of the system: the ability to work with both Adobe and Quark products; the presence of a built-in text editor, which allows you to do without InCopy; the ability to work in a heterogeneous Mac / Win network; ease of installation, configuration and management. An auxiliary product that provides access to publication materials in the mode of viewing the current status and access to specific materials is the PageTrack production monitoring system, which is a Web service and works using a standard browser[15].

Interesting products in the line are the ePaper and eLibrary software solutions that provide the user with the ability to organize a system of cataloging, storage, management and distribution of electronic materials, closely integrated with the publication production system. The ePaper product provides access to online publication of the publication with the ability to view the publication as a whole or individual materials at the user's choice, and also allows you to receive the selected material either in the form of text and individual illustrations (or other components of the material), or in a standard PDF. The generation of materials and their storage in the system occurs automatically, by configuring the XMLexport service in the system. eLibrary is a very similar product in functionality, but its significant

14 WoodWing's Smart Connection Enterprise Now Fully Integrated With Microsoft Word and Excel. CreativePro. https://creativepro.com/woodwing-s-smart-connection-enterprise-now-fully-integrated-with-microsoft-word-and-excel/

15 SCOOP 7, Reborn, rewritten and now released. Scoop Publishware Ab. URL : https://www.scoop.se/

difference is the support of full-text search for the content of all documents stored in it. Both ePaper and eLibrary can be easily integrated into other editorial and publishing management systems[16].

To solve the issue of automating collaboration on complex publishing projects, Abobe Systems has created the Adobe Creative Suite program, which includes new versions of popular professional applications Photoshop, Illustrator, InDesign and the Adobe Version Cue package, which serves to ensure multi-user collaboration with documents. Version Cue is supplied only as part of the Adobe Creative Suite package and allows you to build a Workflow system based on Adobe products – Photoshop SC, Illustrator SC, InDesign CS, GoLive CS and InCopy SC[17].

The Prestige system (developed by ATEX, Great Britain), etc., allows you to automate the processes of creating content, which can then be distributed on different platforms. Thus, the Prestige system allows you to prepare materials that will then be published in a printed edition, on a web portal, on a radio or TV channel or on mobile devices (iPhone, iPod, Amazon Kindle, etc.). All information is stored in a single database, which ensures the centralization and systematization of all content of the publishing house, media editorial office, with which users work through various interfaces convenient for them.

Currently, editorial and publishing systems are quite expensive, but their implementation in production provides many advantages: the ability to standardize and unify production processes; flexibility in changing the production process; increasing the rhythm of work and aligning delivery deadlines; high speed of performing basic routine operations for collecting, organizing, transferring and processing materials; allowing a system of parallel work on publishing and quality management; providing continuous operational control of the progress of work; creating a system for accumulating statistical information for evaluating the work of employees and analyzing the use of materials.

In order to improve access to scientific research, the Public Knowledge Project has developed an absolutely free system for managing and publishing journals, Open Journal Systems (OJS), which is a multi-module server of open source software applications:

16 Shpak V.I. (2019). Management of modern publishing: a textbook. Kyiv: DE «Expres-ob'yava», 368 p.

17 Adobe InDesign. Adobe. URL : https://surl.li/rcvccr

- this is a website management system and journal publishing. OJS covers all aspects of online journal production, starting from setting up the site to solving production tasks (such as submitting manuscripts, reviewing, editing, publishing, archiving and indexing the journal);
- OJS also helps to ease the manual work of editors, reviewers in the production of the journal, informs readers, automates the exchange of correspondence;
- OJS is flexible and scalable. A single OJS installation provides management of several journals. Each journal receives its own URL, as well as its appearance. OJS allows a single editor to manage all aspects of the journal and the site, or, conversely, to provide a team of editors with distributed capabilities in a journal with many sections[18].

The introduction of automated systems in publishing is a strategic investment that must justify itself both financially and operationally. The assessment of effectiveness is based on the analysis of key indicators that reflect changes in productivity, quality and costs.

1. Reduction of operational costs

Automation of routine tasks such as formatting texts, checking spelling and generating reports reduces the need for manual labor. This allows you to reallocate resources, freeing up staff for more creative and strategic tasks.

Automated layout systems minimize the number of errors in layouts, which reduces the need for reprints and corrections, and also reduces paper and ink costs.

2. Increase productivity and speed

Automated content management systems (CMS) and workflows can reduce the time from manuscript submission to publication. Automatic assignment of tasks, monitoring their performance, and instant notification of the completion of stages significantly accelerate processes.

By optimizing processes, the publishing house can process a larger number of manuscripts and projects at the same time without increasing staff, which leads to increased profits.

3. Improve quality and reduce errors

Automatic checks and standardized templates reduce the likelihood of errors associated with manual formatting, copying, and data entry. This is

18 Open Journal Systems. Open science.in.ua. URL : https://openscience.in.ua/ojs

especially important for scientific and technical publications, where accuracy is critical.

Design consistency: Using uniform styles and templates, automated using InDesign Server or other similar tools, ensures impeccable quality and a single corporate style for all publications.

4. Increasing profitability and competitiveness

Reducing costs and increasing productivity directly lead to increased profits. The ability to quickly release new publications allows you to respond faster to market trends.

Increasing customer loyalty: CRM systems help personalize interaction with authors and readers, as well as conduct marketing campaigns more effectively. This strengthens customer relationships and promotes repeat sales.

Automated publishing management is not just a trend, but a necessary condition for survival and successful development in modern competition. The implementation of CMS, CRM and automatic layout tools allows publishing houses not only to optimize their internal processes, but also to create higher-quality content and interact with their audience more effectively.

The choice of platform depends on the specifics of the publishing house. Small publishers can start with a custom CMS based on WordPress, which requires minimal investment. Large publishers working with large volumes of information will need comprehensive ERP systems such as Odoo, which provide full automation and integration. Layout tools such as Adobe InDesign remain indispensable for ensuring high-quality final products. The optimal solution often lies in integrating several platforms, each of which performs its own specialized tasks.

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