ABSTRACTS

UDC 004.9

SYNTHESIS OF RISK MODELS WITH INFORMATION COMPONENTS

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Limitations of the factors that determine the risk process, which is supposed to be used for, are based on the description of the direct process that is studied. In this case, such a process is a set of subprocesses that implement the management of individual components TPP. From this perspective, one aspect of the risk is the risk that the value of parameters of the technological process will go out of limits, leading to disruption of the management process.

The impact of negative factors may manifest as the implementation of attacks on the management system ISU by the technological process. Causes of external attacks are dangers, which exist in the environment, regardless of whether one or the other system is functioning in a certain environment, or it is not. To protect against the negative impact of ISU external factors we have used the protection system or security management system of appropriate ISU. Due to the functional orientation of security management system SUB, it can be argued that the latter should provide a certain level of system security ISU. If the security is seen as a factor that prevents unacceptable deviations of the values of the process parameters, the level of security can be seen as a value associated with the largest risk inversely proportional to dependence.

UDC 004+655.5+655.26+65.012.123

THEORETICAL BASES OF QUALITY ASSURANCE OF PUBLISHING AND PRINTING PROCESSES (PART 2. SYNTHESIS OF PRIORITY MODELS OF FACTORS)

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Research methodology. *The methodological basis of the research is: the logic of predicates and semantic networks, contributing to the design of information models of the subject area to display the essence and the interrelations between factors of the processes of preparation and production of book editions; the analytic hierarchy process to rank the factors influencing the quality of implementation of technological processes.*

Results. *In the study the expediency of application of predicate logic and semantic networks has been grounded to show the essence and the interrelations between factors of the processes of preparation and production of book editions. A semantic network of the factors of book publication design has been developed.*

Novelty. *It presents the procedures of establishment of levels of importance of the factors using the analytic hierarchy process, method of ranking, matrix of reachability and pairwise comparisons. The means of calculation of weight values of factors, synthesis and optimization of multilevel models of the priority influence of factors on the quality of implementation of steps and technological procedures of the editorial and publishing process have been modified.*

The practical significance. *The feasibility of the practical use of the semantic network has been proved, which represents relationships between factors of book design. The work presents the mechanism of calculation of weight values and corresponding ranks of factors of the researched process.*

UDC 004.9.1

METHODS OF PROCESS ADAPTATION OF USERS ACCESS SECURITY TO SOCIAL SYSTEMS

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Research methodology. *In this article the methods of adaptation of the access system to the user have been examined and developed, which can appear to be not prepared enough to work with the system in a necessary measure. Therefore the adaptation consists in the access activation of the dialog with a user by the system. The dialog is formed thus, that a user can get additional information about the methods of connection with the system. Due to such adaptation the system becomes friendlier for an ordinary user.*

Results. *First in the research, the method of level increase of access security to the social information system has been developed, which is based on the use of adaptation methods of the access security system to providing the necessary level of protecting from unauthorized users. In the basis of such method the processes of dialog with users are used. Due to such dialog the system of access gets the possibility to get additional information about a user that allows it to promote general level of access security.*

Novelty. *The novelty consists in the research of adaptation methods of processes of access security of users to social systems.*

The practical significance. *The system of access must adapt itself to the possibilities of the user which has the access to get the personal information. Such adaptation among other tasks can help to solve the task of detection of unauthorized users. Due to this, it becomes possible to counteract the unauthorized attempts of modification of the personal information or their deleting from the system.*

UDC 681.6.004.9

INFORMATION TECHNOLOGY FOR ANALYSIS OF INK PRINTING SYSTEM WITH FOUR FORM ROLLERS BASED ON ITS THREE-DIMENSIONAL MODEL

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Research methodology. *Mostly for ink printing systems research, models that give information only on ink layers average thickness on the rollers and cylinders surfaces and imprints are used. In carrying out this research article in developing information technology systems for ink printing system analysis based on its mathematical model we have used methods of operational calculus, discrete transformation, graph theory, automatic control theory and methods of simulation.*

Results. *A methodology of creating information technology for ink printing system research and analysis based on its mathematical models has been proposed. The mathematical model of ink printing system with four form rollers has been developed. It reflects the ink transferring in the form of ink micro flows array which is transmitted on rollers and cylinders surfaces. This model describes in detail the processes occurring in ink printing systems of the offset machines and makes it possible to reproduce imprints in three-dimensional form. Based on the mathematical model an ink printing system simulator for research and analysis of ink transmission in complex offset machines ink printing systems has been constructed.*

Novelty. *For the first time an ink printing system with four form rollers mathematical model has been developed, which in detail describes the work of all its elements and reproduces imprints in three-dimensional form at its output. This model is the basis for the applications development using object-oriented programming languages or building simulators for the research and analysis of offset machines ink printing systems.*

The practical significance. *The developed information technology for ink printing system with four form rollers analysis makes it possible to take into account the processes of ink transmission and distribution that occur during printing on a Heidelberg company GTO-52 offset machine, to conduct researches of ink transfer, to define accuracy of imprints reproduction and perform a previous adjustment of these printing presses.*

UDC 004.72+004.032

MATHEMATICAL MODEL DESIGN OF CRITERIA HIERARCHY OF QUALITY IMPACT OF MULTIMEDIA WITH VIDEOCONTENT

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Research methodology. *The methodological basis of the research is made by systematic analysis of the current technological process of information perception in media publications; mechanism of semantic networks to reproduce the links between impact criteria on perception quality of the technological procedures; hierarchy analysis method for ranking criteria; the methods of research of processes and multi-criteria optimization.*

Results. *Based on the research of the process of multimedia publications containing video content, we have developed an optimized model that shows the effect of criteria on quality of the design of the latter. This model makes it easy to prioritize the criteria when designing the publication. The research shows that the developers pay little attention on video processing for multimedia publications.*

Novelty. *The study is a new and very important direction today. With this modeling it is easier for a designer to prioritize impact criteria in the development of multimedia publications.*

The practical significance. *You can design relevant programs based on the models, which can automatically perform designing of a multimedia publication. Therefore, the results of optimization will be used to further research in the field of designing of multimedia publications with different content.*

UDC 681.6.004.9

INFORMATION TECHNOLOGY OF OPTIMIZATION PREVIOUS INKS FILLING PROCESS OF INK PRINTING SYSTEM WITH TWO FORM ROLLERS

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Research methodology. *To research the process of previous ink filling of ink printing system with two form rollers scientific methods were used: analysis, comparison and generalization. During fulfillment of the scientific work for construction of ink printing system model, methods of operational calculus, discrete conversion and automatic control theory were used. Researches were conducted using a computer simulation of ink printing system model in the environment of Matlab - Simulink*

Results. *An ink printing system mathematical model with two form rollers of the virtual offset printing machine has been constructed. The simulator of ink printing system model has been built in the environment of Matlab – Simulink On the basis of the conducted researches the optimal amount of working cycles of ink printing system with two form rollers for previous ink filling has been determined.*

Novelty. *The worked out information technology of the optimization of the process of the previous ink filling of ink printing system with two form rollers gives an opportunity to simplify the preparation of the printing machine to printing and to substantiallydecrease the proper technological charges.*

Practical significance. *The simulator of ink printing system with two form rollers has been designed. It gives an opportunity to recreate the process of ink transmission from ink feeding unit to material to be printed and to simulate the onslaught of form rollers to the plate and it is an integral part of information technology.*

UDC 004+65.012.123

SYNTHESIS OF MODELS OF FACTORS PRIMARY IMPACT ON QUALITY OF SOFTWARE DESIGN PROCESS FOR MOBILE DEVICES

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Research methodology. *The paper presents the results of a systematic analysis of the factors influencing the quality of data security on mobile devices and the classification of these factors influence the object. Using semantic network theory makes it possible to determine the structure factors, using the language of predicate logic scheme presented formalized relationships between them. Application of hierarchy analysis system and method of ranking has secured the design of hierarchical models of factorspriority of the design process of the system software for mobile devices.*

Results. *The design of models for solving the problem of ranking calculation of factors priority influence on the quality of the design process of system software for mobile devices has been done. The first model is based on using the analytic hierarchy using distance matrix to determine the levels of factorsinfluence. The second model uses the ranking method based on partial hierarchies design to calculate the weight values and the corresponding level of factorspriority. The multi-level model of factorspriority impact on the quality of the system software design has been synthesized.*

Novelty. *The study has implemented an original approach for determining the quality of data protection on mobile devices with the use of structural modeling, theory of hierarchical multilevel systems. We have presented the following scheme: classification of factors as data protection on mobile devices; semantic network of factors of the system software design. We have built the following models: a graphical model of priority factors influence on the quality of the system software design for mobile devices built by analytic hierarchy; a graphical model of priority factors influence on the quality of the system software design for mobile devices built by ranking method.*

The practical significance. *The design of data protection system is a multifactorial problem, which is determined by the quality processes of protection for individual components of the subsystem. Installation and analysis of all important factors that could affect these processes allows detecting violations of information security in time and adequately responding to them. The developed mechanism of the models synthesis can proactively and prognostically assess the quality of information security at all stages of its existence, it can be extended if necessary for any process of data protection. The suggested approach can be used to optimize the weight values of factors and corresponding models.*

UDC 655. 26+004.925.5

QUANTITATIVE EVALUATION OF QUALITY OF IMAGE COLOR SEPARATION FOR COLOR PRINTING

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Research methodology. *The work has studied 40 color digital images, illustrations potential printing products pictures using the program Adobe PhotoShop CC, according to standard profiles Coated FOGRA 39, Web Coated SWOP 2006 Grade 3 Paper and Coated GRACoL 2006.*

Quantitative analysis of the use of colors in terms of medium TAC and TAC colors and maximum color and black inks using a new computer program ICaS-Color Synthesis-2 has been done.

Results. *As a result of quantitative analysis we have found that the percentage of the total ink TAC of CMY and TAC of CMYK is a constant value for all studied originals. In all cases, the TAC of CMYK is the same and 30% limit is different from that recorded in ISO 12647-2. If the color separation of images is on a standard profile Coated GRACoL 2006, the total area coverage on the darkest areas is, on average 367%, which is 57% higher than the threshold value. TAC of values for CMYK images using color separation profile Web Coated SWOP 2006 Grade 3 Paper is 350% instead of 300%.*

Novelty. *So, for the first time there is an opportunity to stage prepress forms quantitatively to characterize each specific image color separation conditions using various standard profiles and estimate the degree of compliance with the International Standard for color printing. It has been proved that the TAC of CMYK value for all images separated by colors for the same conditions is a constant value and does not depend on the characteristics of the plot. Therefore, the limit value of max TAC color is advisable to choose a criterion for assessing the quality separations.*

Practical significance. *The proposed method for quantitative evaluation of images in terms of TAC allows the prepress stage to predict the outcome of specific color reproduction for printing images. The program ICaS-Color Synthesis-2.0. also allows to analyze the color separation of images in the areas where total ink percentage exceeds prescribed in the standard.*

UDC 661.14: 661.17

PLASTIFICATION OF DIENE-STYRENE PHOTOPOLIMERIZABLE MATERIALS

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Research methodology. *The results of study of the effect of plasticizers of different nature on physic-mechanical and optical properties of films made from thermoelastics, namely styrene butadiene and styrene isoprene elastomers have been shown. We have studied individual styrene-diene block copolymers and their mixtures with different components (monomers, photoinitiators, dyes, inhibitors), which are part of photopolimeryzation materials.*

Results. *It was established that all investigated plasticizers soften both styrene-diene thermoelastics and photopolimeryzation compositions based on them. Among the studied plasticizers dinonyl phthalate was the most effective. It combines well with the polymer matrix, as evidenced by the low optical density of films from these materials. The second group of studied plasticizers were monomers and oligomers reactionable in the photopolymerization processes. By the magnitude of the elastic and plastic deformation it was found the following row of decreasing plasticizer-monomers plastic action: ethylene glycol dimethylacrylate > triethylene glycol dimethacrylate >> acrylic acid = bis-(triethylene glycol) phthalate dimethacrylate > bis-(diethylene glycol) phthalate dimethacrylate. Monomers: ethylene glycol methylacrylate and oligocarbonate-methacrylate revealed antiplasticizing effect, that is evident from the decreasing of plastic deformation and increasing of optical density. A similar behavior was observed in the case of styrene isoprene thermoelastomers and their compositions.*

Novelty. *It has been revealed that methacrylate monomers can create both plasticizers and anti-plasticizers effect on isoprene-styrene thermoelastics. A number of monomers has been set that reveal a plasticizing effect on the blow-copolymers.*

The practical significance. *The research results may have practical applications for production photopolimerizable materials.*

UDC 681.625.23: 004.942

SENSITIVITY OF TONE REPRODUCTION OF SHORT INK PRINTING SYSTEMS OF PARALLEL STRUCTURE

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Research methodology. *The methodological base of the research makes the material balance principle of ink flows in the printing system. To solve this problem the theory of*

signals have been applied to analyze the ink flow modulated by raster printing plates, a graph to describe the structure and modulated ink flows, the theory to determine the sensitivity of tone reproduction to variations in the system parameters.

Results. *In the conducted study the mathematical model of ink flows transfer modulated by a raster printing plate on the basis of which the functions of the sensitivity of tone reproduction with variations in the system parameters have been defined. The graph of the system has been designed on the basis of which an analytical dependence of tone reproduction has been set expressed by an average of the thickness of modulated ink flow at variations in the relative area of raster elements of linear test scale. The results of simulation modelling as tone reproduction characteristics and sensitivity characteristics of the system have been presented. It has been found out that the printing system is quite sensitive to changes in the area of raster elements, depending on the range of tone reproduction. The work has practical value.*

Novelty. *Scientific novelty of the results is that the sensitivity function of tone reproduction of a given range of tone reproduction has been set that characterizes the properties of the system to various influences, in particular, to the effects of raster dot gain in different ranges of tone reproduction.*

The practical significance. *We have found out that sensitivity of short ink printing system of parallel structure of the fifth dimension is uneven and depends on the range and tone reproduction and lies between 0,2–0,7. The research results can be used to assess the impact of raster dot gain that must be considered when organizing tone reproduction, combining of the original density ranges with the density of a raster print.*

UDC 681.62

SYSTEM FOR PROVIDING OF TAPE EVEN TENSION IN UNWINDING PROCESS IN WEB PRINTING PRESS

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Research methodology. *Theoretical studies have been carried out using the latest achievements in the field of mechanics of machines.*

Results. *A new line-feeding system of a web printing press has been suggested, which allows to provide a steady tension on the paper tape during the whole period of unwinding of a roll (from maximum radius to minimum). The method of calculation of the main parameters of the developed line-feeding system has been presented.*

Novelty. *The system to ensure the uniform tensioning of the tape during unwinding of the roll in a web press has been designed. This system will allow to ensure the supply of paper tape to the printing press evenly with a constant force in the printing process.*

The practical significance. *The original, technologically-proven design of the device has been constructed to create and ensure constant tension of the paper tape during*

unwinding of the roll in a web press. The use of such a device will allow to provide steady tension of the paper tapes over the entire range of unwinding and will help ensure the stable operation of the printing press when printing.

UDC 655.3.02

ANALYSIS OF PRINTING TECHNOLOGIES DEVELOPMENT WITH ANILOX ROLLER APPLICATION

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Research methodology. *In the present study the in-depth analysis on the development dynamics of inking units, printing processes, materials and equipment that use an anilox roller has been carried out. This analysis is based upon the patent search with 10 years depth and "anilox" keyword. The patent search has been conducted using online services such as Espacenet and Google Patents.*

Results. *The results of the presented study show the great amount of new inventions that deal with the ink transfer unit with anilox roller application. 532 relevant patents have been analyzed. According to the IPC codes the main patent developments areas are identified: inking units, printing press components, surface of printing press rolls, methods of anilox roller cleaning, anilox roller application in various printing technologies, anilox engraving techniques. The USA is the most assertive among developed countries that have got many patents. It should be noted that most patents inventors are leading printing and publishing companies.*

Novelty. *The analysis of recent inventions and utility models that use an anilox roller has been done which outlines the main trends and development areas of ink transfer technologies.*

The practical significance. *The results obtained from conducted patent research will help to highlight the main key features for further research of ink behavior and ink coating uniformity prediction on the substrate surface.*

UDC 069.15+37.026+372.862

RESEARCH OF COMPONENTS OF PUBLISHING SYSTEMS ON THE SOURCES OF MATERIAL CULTURE

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Research methodology. *In the present research the priority of use the interactive methods in the study of the publishing systems components during the training of specialists in publishing and printing industry has been proved. The results of analysis of the causes of*

quality reducing of publications design show the effectiveness of the formation of the concept of professional culture that is implemented by active nonverbal contact with printing oriented items of human activity during systemic visiting of specialized exhibitions, galleries, regular excursions in the profiled museums, publishing companies, printing houses and so on, fixing the applied component in the performance of specific educational exercises.

Results. *The optimization of thematic educational curricular of academic disciplines has been carried out through the integration of logically related materials of funds of sectoral museums, historical and cultural memorials into the educational process, allowing to generalize the competence acquired in studying a series of professionally oriented disciplines of basic direction "Automation and Computer-Integrated Technologies".*

Novelty. *Based on the analysis of the historical process of formation of mass printing technologies and the conducted analogies with the functionality of modern publishing systems, the conceptual apparatus of participants of the educational space of the Department of Automation and Computer Technologies has been improved and expanded through the implementation of information about structural details, features of creation or design of appropriate exhibits as objects of study and thematically adapted content excursions for student audience o f the indicated direction of training.*

The practical significance. *The students' formation of analytical understanding of the peculiarities of the basic stages of prepress preparation of editions and main phases of their automation through interpretation of items of historical and cultural legacy and interactive research of the cultural level and that time technologies of society during the epoch of artefact creating have been ensured.*

UDC 004.422.8:621.01

KINEMATIC SYNTHESIS OF DIE-CUTTING PRESS MECHANISM WITH EQUALITY OF FORWARD AND REVERSE MOVES

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Research methodology. *In the research work the mechanism of die cutting press such as its kinematic characteristics has been researched. During the study we have used the methods of kinematic analysis and synthesis of mechanisms.*

Results. *The study presented tabular values and graphs of moving of the pressure plate of main mechanism of die cutting machine. We have discovered analytical dependences that allow obtaining the following geometric dimensions of the mechanism in which the movement of the pressure plate will be strictly vertical, but not oscillating.*

Novelty. *After calculating the geometry of the studied mechanism based on analytical dependences except strictly vertical movement of the left and right sides of the pressure plate, the working and not working mechanism moves are the same, and the angle of crank arm will always be less than 180 degrees*

The practical significance. *The work of the mechanism with the received geometric parameters affects well the quality of cardboard packaging as well as improves the performance and stability, which, in turn, positive impact on economic performance.*

UDC 655.3.026.25

CALCULATION OF TECHNOLOGICAL PARAMETERS OF PACKAGES MARKING WITH NANOPHOTONIC ELEMENTS

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Research methodology. *The article presents the method for determining the technological parameters of marking packages with nanophotonic elements, to develop algorithms to describe it the methods of simulation modeling were used.*

Results. *The algorithm is created for calculation of the optical characteristics of printed markings with nanophotonic elements by the known technological parameters of forming and printing processes of screen and pad printing methods, parameters of the used materials. The algorithm was created to calculate the technological parameters of the printing process for producing markings with the predetermined optical characteristics. The software is developed as a simulation model that is a complex mathematical and algorithmic model of the system.*

Novelty. *For the first time the simulation model is developed for calculation of the technological parameters of nanophotonic elements, providing quality of marking process of printed functional packaging with nanophotonic elements.*

The practical significance. *The created algorithms make it possible to produce printed packaging markings with predetermined optical characteristics. The developed software significantly facilitates and accelerates the calculation processes for producing printed markings with nanophotonic elements that provide the functionality of smart food packaging.*

UDC 519.246

CONDITIONAL CYCLIC RANDOM PROCESS AS MATHEMATICAL MODEL OF VIBRATIONAL SIGNALS AND PROCESSES WITH DOUBLE STOCHASTICITY

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Research methodology. *In this study the methods of probability theory and random processes has been used.*

Results. *The new mathematical model of cyclic signals class in the form of conditional cyclic random process has been defined which takes into account their cyclical stochasticity morphological and rhythmic structures. The new mathematical model of the cyclic signal rhythm in the form of the random rhythm functions of the conditional cyclic random process has been described, make it possible to increase informativeness of rhythm analysis in automated information systems, due to more complete and detailed the rhythm description.*

Novelty. *In this study the new mathematical model of the vibrational signals and processes in the form of conditional random process has been defined, which unlike their known models, make it possible to take into account their double stochasticity, that is, take into account stochasticity of the morphological and rhythmic structures of the cyclical signals at the same time. Random rhythm function of cyclic signal unlike the known rhythm models has much more advantages for the accuracy and informativeness of rhythm analysis, because under these conditions is the possibility of continuous increase the "resolution" and informativeness of rhythm analysis.*

The practical significance. *The new model, in the form of conditional cyclic random process eliminates the discrepancy between the model of cyclic random processes and the stochastic models of the rhythm and significantly expands simulation tools and analysis rhythmic structure of the vibrational processes within the framework the stochastic approach, providing additional features for increasing the accuracy and informativeness of processing of the different physical nature and structure cyclical signals. Using the random rhythm functions for the rhythm heart analyze, makes it possible to fully take into account information about its time structure, which is the basis for increasing accuracy of the cyclic signals rhythm diagnostic, including cardiac rhythm in computer cardiac systems.*

UDC 655:686.126

GLITTER PASTE ON POLYMER BASIS FOR PRINTING PRODUCTS DESIGN

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Research methodology. *In a study different types of adhesives have been tested as a viscous film-maker. Layers of these adhesives have been obtained by the method of free irrigation on fat-free surface of the mirror glass. Non-transparency, fragility, peculiarities of the curing process showed unacceptability of their use. The materials of photo-polymer composition have been used to achieve our goal.*

Results. *The dependence of the viscosity of the polymer composition from the concentration of co-polymer has been set. The dependence of the coefficient of light reflectance from glitter particle size and its concentration has been determined. The depend-*

ence of glitter coating resistance to dry friction on the type of coating material has been experimentally determined (depending on the stability of glitter coating to dry friction, coating materials can be placed in the following order: lederyn on fabric base> lederyn on paper> calico> bumvinil> artificial leather).

Novelty. *The composition of glitter paste has been developed (concentration of polymer composition on co-polymer 10–12%; concentration of glitter 50–100 g/l; glitter size ≈ 60 microns).*

The practical significance. *The feasibility of glitter pasta application to design printing products has been determined. The reason for its development was the interest of publishers in this technology.*

UDC 025.4.036 (031)

ELECTRONIC ENCYCLOPEDIAS IN UKRAINE

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Research methodology. *The theoretical framework has provided the use of both general approaches (particularly principles of scientific objectivity, comprehensiveness, analysis and synthesis) and special methods of social communications, which correlate to the research purpose. Thus, the involvement of the functional approach helped identify inconsistencies of actual material and the structure of electronic encyclopedias with the needs of readers (users), the method of content analysis made it possible to thoroughly describe the semantic content of the electronic encyclopedia products and formulate recommendations for their improvement, and the problem-thematic method allowed to isolate the main thematic areas, provided by network encyclopedic resources.*

Results. *In modern conditions the priority of electronic encyclopedias development is undeniable and it is the focus of experts not only in IT, but in Social Humanities, especially social communications that can create and offer a high-quality product Ukrainian network to users with joint efforts. To ensure the activity of the network encyclopedic resources designers it is important to have a clear classification of electronic encyclopedias, combining both the criteria of typological division of directories and features of electronic forms. In the article we have proposed the typology that provides the classification of electronic encyclopedias in inappropriately, the reader's address, the nature of the information, the structure, the availability of a printed or analog version, multimedia, the volume, the format. With these typological traits we have analyzed Ukrainian network encyclopedia resources (online and digital copies and electronic versions of publications) and revealed their positive features and some drawbacks.*

Novelty. *The study cites the modern classification of electronic encyclopedias developed for the first time based on a thorough thematic-typological analysis of network encyclopedic resources (online and digital copies and electronic versions of publications),*

and confirms their expediency of combination of bibliological criteria of directories typological division and features of electronic form.

The practical significance. *The results of the study show that in the information space of modern Ukraine there are many electronic encyclopedic resources (actually 70) designed with their content to meet the needs of different categories of readers. The classification of electronic encyclopedias has been suggested that combines general criteria of typological division of directories (purpose, reader's address, character of information, etc.) and features of electronic media (multimedia, format, volume, etc.) and allows the developers of such resources to meet sufficiently the needs of different categories of users (from highly qualified experts to the media and even children's audience) in a credible, scientifically-perfect information provided involving the latest technological tools (specialized information systems with extensive searching capabilities, multimedia content, etc.).*

UDC 007: 004: 001 + 087.5

CONVERGENT MEDIA FOR CHILDREN IN UKRAINIAN INFORMATIVE SPACE

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Research methodology. *The methodological base of this research is represented by set of statistic method used for the purpose to separate from modern Ukrainian children's media the ones with the attributes of media convergence, analytical method of classification and systematization – to compare empirical date with relevant theoretical concepts, qualitative data analysis – to determine basic advantages of convergent media for children.*

Results. *Specificity of the phenomena of convergent media for children has been described from the social and communicative perspective; their basic features, such as accessibility, attractiveness, interactivity, multifunctional, interdisciplinarity, hypertextuality have been analyzed. Relevant Ukrainian products have been analyzed about their modernity, functionality, efficiency of interaction with a young recipient.*

Novelty. *The paper outlines the concept of 'convergent media for children' and emphasizes on its features that make it perspective for the communication with specific reader/user audience – so-called net-generation. They change the relationship with a recipient, especially a child, who stops being only a recipient and also becomes a creator of new content.*

The practical significance. *The described types of convergent media for children can be used in the practice for improving communication and functional efficiency of real products, in particular the expansion of media platforms, possibilities of interactivity, etc.*

UDC 07:304:659.3 :621.397.13(477)+378.147:004.056.5

INFORMATION ONLINE SPECIAL PROJECT FOR MEDIA AUDIENCE: CONCEPT, TYPOLOGY AND IMPACT

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Research methodology. *The research into the information online special projects for media audience required comprehensive approach to the selection of research methods. Theoretical methods including analysis, synthesis and systematization of scholarly advances in social communications, marketing, project management and many more allowed the theoretical review that resulted in defining the nature of specifically developed information products. Comparative analysis was used to outline the differences between special projects and related concepts. Classification and systematization of theoretical and empirical data made it possible to determine typologically features characteristic of special projects and to describe their functional purpose. Empirical methods included observations to study regional special projects, developed by Cherkasy online publishers; an association method helped to determine the association field for the term «special project».*

Results. *The research resulted in demonstrating one of the most effective ways of organizing and presenting media content. There was offered the meaning of the term «information special project» and related terms including a special topic, thematic package, special rubrics, special issue, special feature, special interview, and special investigative journalism. Based on the analysis of information special projects offered by Cherkasy online publishers, we identified typological features of special projects according to the wide range of criteria: a thematic focus, dominant content type, layout method, functional purpose, and timeframe. The content potential to develop information competence of the media audience was considered.*

Novelty. *The research offered the new interpretation of the term «information special project» proving its necessity and describing its unique potential. The analytical review involves other related concepts focused on developing an information special product. The emphasis is on special projects by the online publishers in Cherkasy region that demonstrate a wide range of different monopolistic features setting them apart from the All-Ukrainian media.*

The practical significance. *The research results encourage the ways of improving organization and formation of other special information offers for media audience. The proposed typology is extremely beneficial for developing professional guidelines to ensure quantity and quality standards improvement when tackling the issue of content in the information area.*

UDC 007:304:659

SOCIAL AND COMMUNICATION ASPECT OF INTERACTION OF BOOKS AND CINEMATIC ART IN THE FORMATION OF INTEREST IN READING

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Research methodology. *During the research the methods of the observation, analysis, synthesis, generalization have been used.*

Results. *The article deals with the social and communication aspect of the interaction of book and cinema in the formation of the interest in reading. The main directions of the interaction of book and cinematic art have been disclosed: books are turned into the movies, both for adults and children; movies plots become a base for the fictions; films cultivate love for reading, forming the interest in this kind of leisure as an essential of life; movies heighten the interest in writers and poets, disclosing the secrets of their life and creation; the name of a writer who is the winner of a prestigious award for the work, based on which a movie was filmed, is used in the advertising of the movie; fragments from a movie become the base for a design of the publication cover; anniversaries in tributes to birth days or death days become a cause for the drawing of the wide audience's attention to the literature, in particular by means of cinema art, etc. The arts of book and cinema are not only the competitors, but the allies in the competition for their customer – a reader and a viewer all in one. For this purpose they turn to the social and communication technologies forming the modern media culture. Screen adaptations draw the attention to the origin, determine heated discussions and increasing the interest in origin works and their authors, the wish to become familiar with the original and to form the own opinion.*

Novelty. *The social and communication aspect of the interaction of book and cinematic art in the formation of interest in reading in Ukraine on the modern stage has been disclosed.*

The practical significance. *The research results can be used during the development of events of formation of information and media culture in a state and individual level.*

UDC 659.1: 378.095

SPECIFIC ADVERTISING ACTIVITY OF EDUCATIONAL INSTITUTIONS IN TERMS OF THEIR POSITIONING

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Research methodology. *Theoretical and methodological basis of this article is a series of findings and conceptual provisions contained in the works of local and foreign scientists and practitioners who specialize in the study of advertising services of*

institutions, their positioning and more. Also we have used traditional scientific methods, such as dialectical, scientific analysis, comparative the use of which has allowed obtaining reliable theoretical conclusions.

Results. *The role and importance of advertising in increasing competitiveness and improving the image of institutions is that it provides the evaluation of the effectiveness of monitoring and control over the interaction of education with other members of the educational process through the use of appropriate techniques. Advertising of educational services requires the development of a new concept of advertising campaign realization at faculties and departments, using the principles and knowledge which will allow educational institutions to manage effectively the process of future development while reducing the number of entrants and increasing the competition.*

Novelty. *The article has systematized the main trends, conditions and prerequisites of advertising activity of educational institutions in modern conditions. The specificity of advertising activities of the institution has been defined as a prerequisite and a factor of stability and competitiveness of the institution and its success in the education market. Also it has clarified the function of advertising in the educational services.*

The practical significance *of the study is that the results can be used in the further development of perspective advertising activity of educational institutions in the educational market in Ukraine.*

UDC 316.6:659.9]:004.7 (043.3)

GENERAL DESCRIPTION OF MODERN INTERNET SPACE IN THE APPLICATION OF ONLINE SOCIAL NETWORKS

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Research methodology. *The article uses general scientific methods of analysis, synthesis, simulation, prediction, comparison. In the applied aspect, historiographical, analytical and typological, comparative, structural, problem-thematic, theoretical methods have been applied.*

In the context of the disclosure and presentation of research results the main goal, which was presented in the paper as separate tasks, we have used the above methods as follows. For the analysis of previous work in this theme we have used general scientific methods of analysis and comparison, as well as the applied aspect - historiographical and problem-themed. To determine the basic formats of web, we have applied general scientific methods of analysis, synthesis, comparison, and in the applied aspect – analytical and typological, comparative and structural methods. To determine the current state of and prospects for future development of innovative communication Internet technologies we have used general scientific methods of analysis, modeling and forecasting, and in the applied aspect – theoretical, structural, and problem-themed methods.

Results. *Presented in the article studies have shown the nature and specifics of modern Internet technologies of network communication, in the creation, dissemination and retrieval of thematic content, which is the main essence of scientific progress today.*

Novelty. *The study, presented in the article, makes it possible to consider a generalized, schematic picture of modern communication online technologies and determine the prospects for their further development.*

The practical significance. *The research results and recommendations presented in the article are important for further development of the system network online communications. In particular, it focuses on future features and benefits of the format of web 4.0, which must fundamentally change the human imagination about the possibilities and potential of communication technologies.*

UDC 070.000.32(71=161.2)”1945/1990”(043.5)

MEDIA TEXTS AS A RESULT OF INFORMATION AND COMMUNICATION ACTIVITY OF EMIGRATION COMMUNITY IN ETHNOCULTURAL COMPETENCE

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Research methodology. *In the suggested research work we have used a set of general and special methods, namely historical method that made it possible to explore the social and cultural context of the post war era; structural and typological, based on the methods of classification and transformation of journalistic materials representative study period. Critical discourse analysis made it possible to analyze the place of social communication, including print media in the formation of a single information-communication space of Ukrainian diaspora in the context of the creation of meaning, reveal the influence of ethno-cultural competence units in the course of the national liberation movement in the territory of post-war Ukrainian emigration.*

Results. *As a result of the peculiarities of the implementation of ethno-cultural competence units have been reviewed that make up the picture of the world of the ethnic group, nation, on the material of journalistic media text ideologue and strategist Ukrainian national liberation movement in exile Ya. Stetsko – stereotypes, symbols, myths, archetypes so as categories that provide integrity communicative and cognitive process of creation of meaning, that media discourse is the only national information and communications space segment considering the emigration.*

Novelty. *The research of media texts is relevant in scientific discourse as a result of information and communication activities of the emigration community in the context of ethnic and cultural competence. Thus, within the intelligence analysis of the components of ethno-cultural competence, pragmatic realizing the potential of media texts of Ukrainian diaspora of post war era, and is encouraging the national unified information*

and communication space, characterized, in its turn, by integrity of communicative and cognitive processes of sense formation.

The practical significance. *The algorithm of analysis of communicative and cognitive channel has been presented – a world view that is a part of the study of all channels of creation of meaning – ideological factor, world view, state management and media – to outline options of strategies for the formation of the idea of the nation as a key sense of the nation creation of media discourse.*

UDC 37.033+808.2

TEXT IN INTERACTIVE FORMS OF KNOWLEDGE POPULARIZATION: EDITING ASPECT

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Research Methodology. *The fundamental method on the stage of data collection was informational approach. The characteristics of games, contests, scientific festivals, and museums were determined through systematic activity-based approach. The method of associations and analogies helped to propose the procedures for the editor to optimize the interactive forms of knowledge popularization, we drew a parallel between book editing and organization of an exhibition, creation of a game, planning of a festival program.*

Results. *We expanded the professional competences of the editor. We showed the specifics of editor's work on the texts for games, contests, festivals and museums performing a science popularization function.*

Novelty. *The editor's role in preparation of ancillary texts for the interactive forms of knowledge popularization has not been researched before.*

The practical significance. *In today's world even in traditional publishing process editor's role is downplayed, so it's important to search for new spheres where editor's expertise could be put into practice. The article provides alternatives and proves that editor's involvement in such projects will have positive outcomes.*

UDC 007: 304: 659

FEAR FACTOR AS AN INSTRUMENT OF SALES INCREASE

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Research Methodology. *During the research the methods of marketing research have been applied, including monitoring, observation, analysis. Monitoring and content*

analysis of publications in the media have been used in order to identify the degree of efficiency of perception and communication applications. Behavioural effectiveness of the psychological effect of PR publications influence has been determined by statistical analysis of the dynamics of household goods sales.

Results. *The efficiency of fear factor usage has been proved as a tool in convincing communication advertising and PR campaigns. It has been found out that the main communication tools were PR, advertising, internet marketing, rumours.*

Novelty. *In the research there was the first attempt to analyze the effectiveness of the fear factor in the communicative impact on the consumer to change his mind in certain product groups based on practical examples, in particular, to determine the causes of the sharp increase in domestic product sales in 2014.*

Practical Significance. *The results of the study have revealed the effectiveness of the fear factor as a means of manipulating the consciousness of the consumer in order to increase sales of certain product groups. This factor can be an effective tool especially in unplanned advertising / public relations communications.*

UDC 655.413:070]:004.89(100)

DIGITAL TRANSFORMATIONS OF ACADEMIC JOURNAL PUBLISHING MODELS

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Research methodology. *Qualitative data analysis sets the methodological base of the research. Categorization of empirical data, analysis and comparison of theoretical concepts, a systematic approach and modelling method allowed to determine the models of publishing academic journals in the digital age.*

Results. *As a result, the article describes the author's approach to business models of academic journal publishing in the context of development of open access to research: Close Access Journals, Open Access Journals, Hybrid Journals (partial open access, delayed open access, open choice), Overlay Journals and publishing perspectives in the evolving digital environment.*

Novelty. *The paper examines the role of overlay models in publishing academic journals. An overlay journal performs all the functions of a scholarly journal and relies on structural links with one or more archives or repositories to perform its tasks. The paper briefly outlines the concept of 'overlay journal', the forms of cooperation between overlay journal editorial and repositories, how overlay journals have evolved and what makes their contribution to scholarly communication so valuable.*

The practical significance. *The described models can be used in the editorial practice of Ukrainian academic journals, especially overlay models, which is a rare case of a win-win for publishers, authors and readers.*

UDC 945(477)(051)“14/17”

DOCUMENTAL DESCRIPTION OF LITHUANIAN, CROWN’S AND MAZOWIAN METRICS

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Research methodology. *The article first defines metric’s concept of the meaning. Each of these forms (Lithuanian, Crown and Mazowian) has been analyzed by studying the history of the creation, organization, functionality and fate. The author follows the historical principle, logical deductive text-construction, applies opportunities of comparative approach.*

Results. *The documental analysis of historical forms of trafficking documents as Lithuanian, Crown and Mazowian Metrics has been done. Their modern counterparts have been demonstrated.*

Novelty. *Most studies of Lithuanian, Crown’s and Mazowian Metrics are primary sources of archaeographical character. The author tries to give documental metric’s characterization as a form of historical document’s organization. Therefore, the special role is played by the organization and functionality of metrics, they find a modern equivalent. The look at Lithuanian, Crown’s and Mazowian Metrics as the late Middle Ages database makes the scientific novelty of this article.*

The practical significance. *The article may be interesting for both professional historians concerned with the source and archaeography and of documentation, especially specialists in the history of science. Determining the positive and negative aspects metrics like database can detect similarities in modern counterparts and carry out the work on their improvement or elimination.*

UDC 007:304:070

CHRISTIAN RELIGION AS A FACTOR OF UKRAINIAN NATIONAL GENESIS: PUBLICISTIC INTERPRETATION OF SIXTIES

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Research methodology. *For reaching scientific conclusion we have applied such general scientific methods: analysis, comparison, synthesis, induction, deduction. The main concrete scientific method becomes the qualitative (quality) content analysis or content analysis in the study of views of Sixties on the religious history of the Ukrainian people.*

Results. *For the formation and development of Ukrainians as a national community, their Christian beliefs have played a prominent role. The national perspective is for the*

restoration of the fundamental Christianity of the Ukrainian people and adequate ecclesiological policy. This idea needs to be popularized in the modern information space of Ukraine.

Novelty. *The results stand for novelty for the field «History of Ukrainian Press», within which the discourse of the Sixties has not been studied.*

The practical significance. *The results can be used in Ukrainian studies and further socio-communication researches of the stated problem; they can form the basis of training courses and special courses for students of specialty «Journalism».*