

**EEIA-2017**  
**2017 International conference**  
**"Education Environment for the Information Age"**

**INFORMATION TECHNOLOGIES IMPACT ON THE MASS  
MEDIA ACTIVITY AND TRAINING OF JOURNALISTS**

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***Abstract***

The article examines the problems connected with the influence of new computer-based technologies on mass media production process; restructuring of editorial boards and publishing process in connection with convergence and multimediatisation. The paper analyses present forms of mass media consumption and the emergence of the concept of a media platform involving different formats of mass media' presentation of information that meet the needs of the audience. The article examines the editorial boards restructuring aimed at professional roles devolution, rather than the increase of personnel. The traditional mass media that have moved toward convergence rearrange their work in accordance with multimedia principles. Besides, the article covers multiple examples of multimedia editorial boards that diversify forms of delivering news and create new synthetic media genres. The authors define terms related to multimediatisation. The digital transformation of media industry should involve changes in the professional education and training of journalists. That is why the Russian universities continue to improve teaching methods in the field of convergence journalism by training students as multipurpose journalists who could create content for different media and apply mobile technologies. The journalist department of the philological faculty at the Peoples' Friendship University of Russia offers such educational program.

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**Keywords:** Information technology, media convergence, multimediatisation, multipurpose journalist, multimedia genres.



## 1. Introduction

New technologies entering the media market are heavily changing mass media consumption habits and forcing mass media to look for new ways of holding the position of dominance. This fact especially concerns periodical press. The internet with its online delivery is much more economical than print publication, as it does not require costs, which comprise the greater part of the newspaper and magazine budgets: paper, printing, postal and newsstand distribution. The millennials generally prefer reading digital material to print material. In these circumstances, Hamlet's question is posed to the newsmen «to be or not to be?». Journalists discuss the issue in professional magazines «Journalist» (*Zhurnalst*, 2016), «Journalism and media market» (*Zhurnalst*, 2016), «Accents. New trends in the mass communication» (Tulupov, 2016). Mass media researchers also try to shed light on this problem (Baranova, 2016).

The search for an answer is the search for trends that have formed the modern media landscape, which cannot be fully estimated without taking into account the convergence process. Studying the phenomenon and issues of multimedia journalism, we, first of all, refer to the work of such media researchers as Lugmayr and Dal Zotto (2016), Wiefel and Gregus (2016), Wilkinson, Grant, Fisher, (2008), Küng (2017); Kitchen, Lauriault, Wilson (2017).

The works of Henry Jenkins, professor of communication, journalism at the University of South California are also worthy of mention in the context of the topic. He believes that mass media convergence is not just a technological shift; the real convergence takes place mostly in the heads of consumers. He notes that this process has dual features; it is both the creation of content distribution channels and the motivation of users to master media platforms independently (Jenkins, Ford, Green, 2013). Professors Richard Hernandez and Jeremy Roux at the University of California Berkeley graduate school of journalism draw the scientific community attention to the fact that changing media environment has led to the emergence of new information products – multimedia projects that require a new system of genre classification. Scientists propose to divide them into three categories according to the narrative structure of a story: continual, combined and immersive (Hernandez, Rue, 2015).

It is also significant to note that the important feature of convergence process is interactivity, a creation of new communication practices and virtual reality that allows a user to receive information directly through several sensory channels. This aspect is widely covered in the works of terry flew, professor of the Queensland University of Technology (Flew, 2014), Gery Migielicz and Janine Zacharia of the Stanford University (Migielicz, Zacharia, 2016).

## 2. Research Questions

As we can see, the modern science of journalism has accumulated an impressive knowledge base, which requires up-to-date educational programs for specialists in this field. The problem of professional capacity development among students-journalists has been researched by Singaporean scientists in their book “New media and learning in the 21st century. A socio-cultural perspective” (Lin, Chen, Chai, 2015) and by Brazilian researchers in the article “Challenges and new ways of teaching journalism in times of media convergence” (Tárcia, 2008).

With regard to the Russian media environment, at one time websites became common for the print press to publish online versions of the paper. But nowadays it is not enough anymore. Competition

enforces media organisations to expand its business and to apply the multimedia strategy. For example, a few years ago, the newspaper “Komsomolskaya Pravda” (“KP”) adopted “web-centric” approach to organising their workflow. It issued not only print-based content but published audiovisual content on the website on daily basis. Consequently, “KP” journalists moved toward convergence.

According to a Russian researcher E.A. Baranova, convergence is a single production process of content and its multiple replications on different media platforms; joint creation of content by journalists from different departments of media organisation (Baranova, 2014).

Platforms incorporate different media formats. Apart from text material they can contain photo galleries, slideshows, radio commentaries on current events, on-the-spot news reporting, a video blog, infographics, interactive forms of communication (voting, feedback forms, ratings, questionnaire, and flash games). The practice has shown that transition to a converged news environment requires the primary consideration of follow-up questions:

- which media platform is more preferred in terms of tactics (increases information influence at present) and which one in terms of strategy (what trend in the evolution of media business must not be ignored);
- labour input in the production of information and advertising materials;
- determination of current and «ideal» journalists and editors load distribution;
- calculation of the required number of the editorial board;
- determination of required editorial board functions and roles, its distribution among employees;
- development and approval of multimedia editorial board structure;
- development of the collaboration scheme among different media platforms;
- establishment of editorial policy for each platform.

Practically there is no format restriction in multimedia journalism. When facts and opinions are collected, it’s time to decide what kind of information and in what form should be delivered to a reader. Words are used for an explanation; images (maps, charts, graphs, tables, slide shows) – for presentation, a comment box – for expressing people’s views... in fact, a journalist and an editor in a multimedia editorial board are directors of users’ attention (Silant'yeva, 2010).

### **3. Purpose of the Study**

The authors carry out this research to review the problems related to the influence of new computer-based technologies on mass media production process. Obviously, it leads to restructuring of editorial boards and publishing process in connection with convergence and multimediatization. With this regard they demonstrate that the new trends involve changes in the professional education and training of journalists.

### **4. Research Methods**

The authors used the method of analysis of texts from newspapers, magazines and other periodicals in order to achieve the desired goal.

## 5. Findings

Traditional mass media that has moved toward convergence rearranges its work in accordance with multimedia principles.

The question arises regards the training of convergence or in other words multipurpose journalists who could create content for different media, taking into account peculiarities of each of them. So, they should not only wield a pen but skilfully take photos and shoot video clips, be able to gather operational information for infographics, prepare audio illustration, possess video editing and photographic processing skills, know how to transfer multimedia files by using different options, and use various platforms to deliver news to consumers. Unfortunately, at many faculties of journalism in Russia, the conception of learning and teaching remains the same as it was before the digital age. Students learn journalism in a separate set – newspaper, radio, television and photojournalism etc. The graduates become good specialists, but niche journalists, who can work only in one sector of media. Modern journalism requires a multimedia approach. This can be seen by referring to the website of the newspaper “Komsomolskaya Pravda”. It is a convergent media today, including radio, print and web-based content. Therefore, it requires a host with a deep knowledge of politics, economy, culture, social sphere; head of the illustration department, who is responsible for organising and planning the work of a photographer, an operator, designers; who can establish contacts with photo agencies, and keep a photo and video archive. Their main goal is to provide multimedia editorial board (newspaper, website) with visual data. There is an urgent need in journalists who can create newswire to share and embed newsworthy content. Students are invited for an internship where they learn to use newswire, social media for monitoring and reporting the news and to create video spots, radio messages.

The radio station “Komsomolskaya Pravda” keeps the audience up to date with the situation around the country and the world. Publishing house “KP” and all of its projects (“Komsomolskaya Pravda”, “Sovetskiy Sport”, weekly “Football”, “Express Gazeta”, “Teleprogramma”, “Va-bank”, “Extra–KP” website kp.ru, pressroom) are the platform for creating unique content for the radio station. The radio station encompasses different genres: news, a block of useful information, talk shows, music and social programs, programs of interests, entertainment shows.

However, not all traditional media are ready to move toward convergence. Larisa Kallioma wrote about the tendency in her thesis (Kallioma, 2013). Lyudmila Telen, a chief editor of “Radio Svoboda” website, thinks that a psychological factor plays a significant role in transforming (or creation) traditional news media into a multimedia newsroom. On the other hand, there are journalists and audience who are flexible and open to change caused by emerging new technologies. They are usually relatively young news media that focus on the business audience at the age of 25-50 years old, for instance, “Kommersant”, “Vedomosti” and others.

Other news organisations and their audience are much more conservative. They are mass media with old traditions, age-specific audience, stable staff who are suspicious about any outsider. Every journalist who has worked in such traditional media as “Izvestia” and “Ogonek” is conversant with these matters. On the other hand, such conservatism allows keeping the face of news media, its corporate identity, content quality etc. a long-term experience in working for the newspaper “Moskovskie Novosti” (“MN”) convinced Lyudmila Telen that it is true. And probably it is this experience that helped evaluate a

conservative radio station «Radio Svoboda», avoid a temptation to break a deep-seated tradition and to reorganise the news media. Therefore, the word «evolution» has become the key term in the renovation of the internet platforms (Telen, 2010).

Telen worked in “Moskovskie Novosti” which was closed at the end of 2007. Its owner Gaydamak decided to suspend publishing the newspaper, having explained the decision that a new generation of the Russians needed a new media format that would satisfy up-to-date requirements of delivering news stories. The publication of “Moskovskie Novosti” was restarted after more than three years at the end of March 2011. New forms of delivering news declared themselves as the journalists started to create news content on four platforms at the same time: a print paper, a website, iPad and mobile devices. Each platform was used in accordance with its functions.

Breaking news was distributed to people via mobile devices and the website, analytical information was published in the print newspaper. Mobile versions of websites were updated three times a day. Videos were displayed on a tablet device. They dictated the choice of genres and tools. Microblogs, the Facebook and the Twitter were used for delivering breaking news. Tablet users could consume text, images, video and audio content. In addition, readers could use a tablet application to read an article, to publish it on the Facebook newswire, to write a comment or share it with a friend (Antonovskiy, 2011).

“Komsomolskaya Pravda” and “Moskovskie Novosti” were the pioneers who adopted the multimedia strategy in Russia. The transition from the traditional media toward convergence involves many challenges. It requires the emergence of new professions, changes in principles of planning and content production, trying a new set of roles, the development of new roles, cultivating new skills for considerable part of employees, the development of interactive services and many other things. The print media cannot be effective and competitive in the information society.

Traditional mass media that has moved toward convergence rearranges its work in accordance with multimedia principles

- The editorial board produces content for many platforms in various combination to meet the needs of different target audiences.
- Ideas and themes are developed collectively.
- The work of the editorial board is the subject to multi-level planning.
- An important component in regular content production is databases intended for both internal usage and external readers/users.
- The editorial board actively engage the audience in the process of creating and organising content.

Adherence to these principles significantly changes daily work of the editorial board. However, practitioners believe that there is no need to expand staff to apply the web-first approach. Sometimes it will suffice to delegate tasks to employees in other ways.

- An aggregator editor creates interesting, a useful topical collection of content, saves readers' time.
- A mobile journalist writes (to the editorial board or to the website) an eyewitness report with important details about the event, sends unedited video and audio content from smartphone. It gives an opportunity to beat competitors in the media market.

- A journalist-analyst works with databases, tables, and other analytical information, determines causes and effects, interesting trends.
- A multimedia producer sorts out the peculiarities of the text, video, audio perception; combines different forms of news exposure choosing the most optimal for each publication; coordinates the work of analysts, mobile reporters, aggregator, photographers and print journalists.
- A community editor works with the audience as the source of information, the co-author, and the counsellor; creates community; supports discussions; answers questions; helps users in individual projects; encourages productive activities aimed at the creation of informational content (Silant'yeva, 2010).

## 6. Discussion

The most common position in the editorial board is a multipurpose journalist, who is the main supplier of text, photos, audio and video content, who has a good command of new information technology and methods of media content processing. The faculties of journalism at Russian universities should offer educational programs that cultivate such skills in students. The Philological Faculty of the Peoples' Friendship University of Russia offers such educational programme for journalists. In contrast to other Russian Universities, where students are educated in a specific field of journalism – news-magazine printing, radio, television, photojournalism etc., the Peoples' Friendship University of Russia trains specialists to integrate all types of media. The graduates can work in every field of media and easily adapt to new realities – multipurpose journalism, a creation of multimedia content.

RIA “Novosti”, that was the first media switched into the production of multimedia content, actively use the atomic-molecular theory of media: “info the atom”, which are separate photographs and texts, forms “info-molecule”, which in turn are combined into more complex organisms – multimedia story. Various combinations of molecules and atoms create the content for different media platforms.

According to Natalia Loseva, new media expert, the most common types of “info molecules”, which RIA “Novosti” use, are following: static illustration, photo gallery, photographic, slideshow, caricature, podcast, audio illustration, audio version of the text, audio piece, video illustration, news item, audio slide show, interactive news item, interactive video conference.

## 7. Conclusion

The combination of these elements (info molecules) generates certain synthetic genres. For example, slide show and audio version of text create an audio slideshow – one of the simplest ways to synthesise image and sound. It is a combination of selected images and recorded the voice of radio announcer. Visual patterns include photos from the spot, archive recording, scanned documents, maps fragments, infographics, caricature and so on. An audio slide show is perceptually close to a news item and often substitutes it (Loseva, 2010)

So, before the current media there is a choice - either to stay in the old traditional framework or to turn into a multimedia resource, as the leading publications have already done. The competition in the information market clearly indicates that the media that chose the second path is more successful.

## References

- Antonovskiy, D. (2011). I got news for you. *Moskovskie novosti*. Retrieved from: <http://www.mn.ru/society/67883> (accessed on: 25.02.2016).
- Baranova, E.A. (2014). *Convergence journalism: theory and practice*. Moscow, Yurayt Publ., 268 p. [in Rus]
- Baranova, E.A. (2016). Trends in evolution of editorial board in terms of media convergence. Ph.D. Thesis (Philology). Moscow, INFRA-M Publ., 185 p. [in Rus.]; Kopylov O.V. (2012) Trends in creative journalistic writing in terms of media convergence. Synopsis. Ph.D. Thesis (Philology). Yekaterinburg, 19 p. [in Rus.]; Multipurpose journalism: high school book. (2016) Shesterkina L.P., ed. Moscow, Aspect Press Publ., 480 p. [in Rus.]
- Converged media: let's close in on the target! (2016). *Zhurnalists*, no. 2. pp. 50-52. [in Rus]
- Dmitriev, O. (2015). How to start working with multimedia: ABC of experienced journalist. *Zhurnalistsika i mediarynok*, no. 9, pp. 74-75 [in Rus.]; Kuznetsova Diana. (2016) Multimedia in province: convergence or intervention? *Zhurnalistsika i mediarynok*, no. 2. pp. 44-45. [in Rus]
- Flew, T. (2014). *New Media: an introduction*, 4th Edition. Oxford: Oxford University Press.
- Hernandez, R., Rue, J. (2015). *The Principles of Multimedia Journalism: Packaging Digital News*. Routledge.
- Jenkins, H., Ford, S., Green, J. (2013). *Spreadable Media: Creating Value and Meaning in a Networked Culture (Postmillennial Pop)*. New York: New York University Press.
- Kallioma, L.A. (2013). Adaptation of journalists to working conditions in converged environment. Synopsis of Ph.D. Thesis (Philology). Moscow, 19 p. [in Rus].
- Kitchin, R., Lauriault, T. P., Wilson, M.W. (2017). Understanding spatial media. Retrieved from [https://us.sagepub.com/sites/default/files/upm-binaries/81161\\_Kitchin\\_et\\_al\\_\\_Understanding\\_Spatial\\_Media\\_\\_Chapter\\_1.pdf](https://us.sagepub.com/sites/default/files/upm-binaries/81161_Kitchin_et_al__Understanding_Spatial_Media__Chapter_1.pdf)
- Küng, L. (2017). Strategic Management in the Media: Theory to Practice. Retrieved from <https://books.google.ru/books?id=uEByDQAAQBAJ&printsec=frontcover&dq=convergence+media+teaching&hl=ru&sa=X&ved=0ahUKEwjLu6CPntvSAhXBhiwKHb7uBPUQ6AEITzAH#v=onepage&q&f=false>
- Lin, T-B., Chen, D.T.V., Chai, C.S. (2015). New Media and Learning in the 21st Century: A Socio-Cultural Perspective. Retrieved from <https://books.google.ru/books?id=ueLdBgAAQBAJ&pg=PA1&dq=convergence+media+teaching&hl=ru&sa=X&ved=0ahUKEwjLu6CPntvSAhXBhiwKHb7uBPUQ6AEIGjAA#v=onepage&q=convergence%20media%20teaching&f=false> DOI 10.1007/978-981-287-326-2.
- Loseva, N.G. (2010). *Convergence and multimedia genres. Journalism and convergence: why and how traditional media adopt multimedia strategy*. Kachkaeva A.G., ed. Moscow, Fokus-Media Publ., pp. 129-135. [in Rus.]
- Lugmayr, A., Zotto, C.D. (2016). Media Convergence Handbook. Vol. 1: Journalism, Broadcasting, and Social media aspects of convergence. Retrieved from [https://books.google.ru/books?id=F3P\\_CgAAQBAJ&pg=PA408&dq=Convergence+media&hl=ru&sa=X&ved=0ahUKEwii8OX0trSAhXJEiwKHTs9C4wQ6AEIUDAH#v=onepage&q=Convergence%20media&f=false](https://books.google.ru/books?id=F3P_CgAAQBAJ&pg=PA408&dq=Convergence+media&hl=ru&sa=X&ved=0ahUKEwii8OX0trSAhXJEiwKHTs9C4wQ6AEIUDAH#v=onepage&q=Convergence%20media&f=false) . DOI 10.1007/978-3-642-54484-2.
- Migielicz, G., Zacharia, J. (2016). Stanford Journalism Program's Guide to Using Virtual Reality for Storytelling. Dos & Don'ts. Retrieved from <http://journalism.stanford.edu/news-stanford-vr-journalism-guide-virtual-reality/>
- Silant'yeva, O. M. (2010). *Media holding: how traditional media can adopt to multimedia environment? (experience of publishing house «Altapress» in creating integrated multimedia editorial board)*. Moscow, Fokus-Media Publ., pp. 79-102. [in Rus].
- Tárcia, L. (2008). Challenges and new ways of teaching journalism in times of media convergence. Retrieved from [https://www.academia.edu/12208170/CHALLENGES\\_AND\\_NEW\\_WAYS\\_OF\\_TEACHING\\_JOURNALISM\\_IN\\_TIMES\\_OF\\_MEDIA\\_CONVERGENCE](https://www.academia.edu/12208170/CHALLENGES_AND_NEW_WAYS_OF_TEACHING_JOURNALISM_IN_TIMES_OF_MEDIA_CONVERGENCE)

- Telen, L.O. (2010) *Broadcasting on the Internet: the new life of old media (by the example of «Radio Svoboda» website)*. Moscow, Fokus-Media Publ., pp.106-127. [in Rus].
- Tulupov, V. (2016). Journalism education in the new millennium. *Aktsenty. Novoye v massovoy kommunikatsii*, no. 5-6. pp. 2-3. [in Rus].
- Wiefel, M., Gregus M. (2016) Digitalization: The Consumer in the Digital Age, E-commerce and Asymmetric Information, Chances and Risks for Small and Midsize Companies in the BtoC Retail Business. Retrieved from <https://books.google.ru/books?id=wwBLDQAAQBAJ&pg=PA14&dq=Convergence+media&hl=ru&sa=X&ved=0ahUKEwjHljI2drSAhVGdCwKHYtOAOoQ6AEIHDA#v=onepage&q=Convergence%20media&f=false>
- Wilkinson, J., Grant, A., Fisher, D. (2008) *Principles of Convergent Journalism*. – Oxford: Oxford University Press.