DOI 10.31489/2021Ph1/90-95

UDC 070

S.K. Karpova*, V.T. Abisheva

Karagandy University of the name of E.A. Buketov, Karaganda, Kazakhstan
(E-mail: sabythelemur@gmail.com, vera.abisheva@mail.ru)

Development popular science journalism in the era of globalization

The article is devoted to the development and formation of popular science journalism, the transformation of its typological models, genre forms, and the determination of the influence of socio-economic, cultural, and political factors on its formation. The heyday of the genre is marked in the Soviet period, both in the field of periodicals, and in the field of television and documentary films. The goal of scientific popularization was conceived as the development of the audience's worldview. In the subsequent period, the interest of the mass audience in scientific information was somewhat lost, the connection with well-known scientists who seek to present scientific information vividly and accessible was lost. Not only popular science programs, but also the topic of science as such, have practically disappeared from the television broadcast. In the era of globalization, the idea of popularizing scientific knowledge is revived on the basis of the rich historical experience of science and its interaction with society. The dissemination of knowledge that has now become the property of the State is one of the main national priorities of the world powers. The proposed work is an attempt to trace the path along which popular science journalism developed in the changing socio-cultural conditions of society. The authors emphasize that one of the main means of introducing science and popular science knowledge into life, of course, is the scientific media.

Keyword: globalization, popular science publications, popularizers, popularization science, technology breakthrough.

The concept «globalization» entered in scientific turn at the end The 1990s. Soon this term started to be used not just in science, but also by public figures in other areas — from the political side up to informational or mass-media. Under globalization the creation unified legal status is understood, economic development and informational spaces between countries the world.

First Karl Marx used it the word «globalization» in the value of «intensive international trade» in one of the mails to Engels: «Now global market truly exists. With the California exit and Japan on global market globalization done» [1;192].

According to I. Novikova, globalization represents a large-scale project that changes a process of organization of world economy, which recently was understood as a complex of national related farms that connected to each other with the device of international divisions labor, economic and political parties relationships. This basis creates a unified global strategy network market economy — geo-economics — and its mechanisms, violation national sovereignty States, former principals current ones persons of international organizations relationships on the site during this period centuries. The process of globalization we can define as the result of formations state owned registered commercial systems.

L. Grinin as a consequence of the globalization process marks the world's division labor, migration (and, as a rule, concentration) of capital, labor resources and production facilities resource type legislation, economic factors and technological solutions procedures, and also convergence and connection different cultures countries all over the world the planet.

*Corresponding author's e-mail: sabythelemur@gmail.com

This process covers all areas of public life on a global level, all-planetary level. In the process of globalization distribution the world becomes more structured and-as a consequence dependent on all its subjects.

It is noteworthy, what is the appearance of the word «globalization» points that the main role in this case has the active growth of international commercial activities, what is happening on certain pages historical data stages.

Let us note several factors of globalization:

- the formation of worldwide ideologies, such as environmental management or a human rights case movement;
- electronic devices of communication, capable to overcome the borders and time;
- technological feature breakthroughs that allow you to distribute all over the world any information and produced by countries products (it also includes Internet access).

From the last one criteria follows the phenomenon of how manipulation influences on mass consciousness. It is known that manipulation like any fraud mass consciousness is one of the following types of psychological impacts, as a result of which becomes appearance from the addressee intent, not matching with its valid desires. Mostly manipulation is being implemented by planting stereotypes behaviors; substitution of concepts; creating false metaphors; mythologization; distractions attention from objective reality.

With development of mass media communications (QMS) a real ability to influence on the minds of people appeared, by all over the world. Technology of manipulations over a mass order consciousness are called high-hume. They're holding up on such funds like television and radio, movies, mass art, World wide web. The television is capable to distort consciousness or form it from the viewer image false reality, not having connection with the objective reality.

Mass production art generates virtual life which artfully simulates reality, the so-called simulacra — fixing method experienced state, «generation, with the help of models, real without the source and reality: hyper realities» (J. Baudrillard) [2; 105]. The real one is being replaced by just the image of it.

The danger of deliberate impacts on consciousness mass consists of:

- the loss of proper perceptions reality on a global scale;
- leveling out the personalities;
- the use broad masses in various ways of «dirty» ones political affairs.

In the XX century it appeared a very specific a phenomenon that Spanish philosopher J. Ortega y Gasset called «the uprising of the masses». Its essence lies in the fact that instead of a relatively orderly life of society, its massification comes. In mass format the largest part of the population accepts standards, behavioral data addictions and stereotypes, imposed by mass media.

Exactly due to manipulation of mass consciousness, human losses true values, separation from historical data the roots of the most trusting, unprincipled individuals can get to the road extremism and terrorism. In order not to get caught in a network of false systems of thinking, the audience needs reliable sources about the basic categories of various fields of knowledge. After all, it is much more difficult to mislead an well-educated person with false doctrines and substitution of concepts.

Globalisation reflected at Mass-media work process. This has been affected not only by the expanded choice of topics, but also by going beyond certain territorial and national frameworks. International publications and news agencies appeared, cultural and information exchange between the countries of the continents of the Earth increased. The World Wide Web, which the general public saw in 1991, contributed a lot to this. The almost limitless possibilities of the Internet have also become an indicator of countries ' involvement in the global space.

By allowing access to an unlimited amount of information and organizing media in real time, the Internet has set the tone not only for news, but also for educational resources.

If up to this point, the media were only print publications or TV and radio companies, then with the advent of the Internet, many of them began to flow into cyberspace.

In terms of their subject matter, online publications do not differ from their paper counterparts. On the Internet, you can find news sites, literary, popular science, children's, culinary and many other narrowly focused publications. It is noteworthy that while traditional publications — the so-called «offline» ones — are published with a certain frequency (once a day, week, month), online publications are updated as content becomes available. At the same time, there is online radio and online television, which are also characterized by high efficiency.

For the popularization of science, this transition from the usual format of literature and media to the web has played an important role. First, the range of topics (for example, modern computer technologies, the Internet and programming, etc.) considered by the popularizers of science has expanded.

Secondly, the advent of the World Wide Web allowed the reader to find information freely around the world.

Third, with the advent of the digital world, popular science journalism has become widespread and a new form — the form of an online magazine or even a popular science website.

It is worth adding that in the process of globalization, the concept of literary genres also began to change. The usual genres began to blur, mix with each other, and the definition of popular science genres puts researchers at a dead end. As G.N. Shvedova-Vodka notes, «the genres of popular science literature are still insufficiently studied and are not fully described»[3; 35]. It offers the following genre classification of popular science texts:

– note (popular science message),
– popular science article,
– science fiction story,
– popular science essay,
– popular science reference book,
– popular science encyclopedia,
– popular science encyclopedia,
– popular scientific (recommendation) bibliographic guide,
– practical (useful) tips for non-specialists, a memo.

The basis of this classification is taken exclusively morphological approach to the definition of the genre. However, with all the variety of publications that carry scientific knowledge, scientists distinguish between scientific and popular science text. As M.P. Senkevich notes, «popular science and science fiction literature does not belong to the actual scientific style. These types of literature use elements of both scientific, colloquial, and journalistic styles, as well as the style of fiction» [4; 201].

Popularization of science is a dynamic phenomenon. With the course of globalization, with each new technical breakthrough, a new type of popular science literature appears. The moment of publication of a full-fledged popular science material, the Russian researcher A.G. Vaganov [5] calls the middle of the XIX century — when in 1845 the United States began to publish lists of new patents in the popular science magazine Scientific American. Up to this point, the trend in popular science media continued to focus on narrow-profile, far from publicly available knowledge.»... the tasks solved by industrial education simply inevitably led to the birth of the popular science genre,» the scientist claims. — «Inform, adapt, propagate, communicate — all these are exactly the same species characteristics in the Linnean sense, according to which I propose to define a popular science genre»[5; 166–167]. However, all this, according to A.G. Vaganov, reduces access to useful knowledge.

Thus, at the dawn of globalization, we see the popular science genre as a manual for amateur technicians, but closer to the middle of the XX century, the same genre performs educational, educational and propaganda functions. If before this period in popular science texts offered the reader scientific knowledge, then from the middle of the XX century in these publications already communicate not so much about science as about the explanation of scientific knowledge to the masses. Now on the pages of sciencepop they do not delve into science, but in a simple and accessible language they tell about the sciences themselves and important research and discoveries for a huge number of people. Here, popular science journalism takes on an entertaining function.

What happened to the trends in popular science journalism today? Here it is worth noting that cultural scientists today associate the manifestation of globalization with a sharp reorientation of culture to the West, including American economic expansion. It means «Americanization» — the influence of culture, politics of the US economy on the development of other countries.

In addition, on bookshelves and websites, not only scientific, but also modern popular science publications have appeared in free access, telling about the development of science in various branches of our life today. In addition to an accessible and understandable explanation of the objects and phenomena among which and thanks to which modern man lives, these publications give forecasts for the future. Also registered are publications that contain explanations of the wonders of technology from new science fiction films from

the point of view of physics, in a publicly available language showing the simple layman the possibility or impossibility of such technologies in the future.

The world known such popularizers of scientific knowledge in the pages of books and magazines, as Michio Kaku — American scientist of Japanese origin, a specialist in theoretical physics, known as the author of popular science books, Isaac Asimov — science fiction writer from USA, author of scientific-popular articles in the magazine of Fantasy and Science Fiction, from under whose pen came many books concerning different fields of science, from history to astronomy, including «Guide to science»; David Rose is an entrepreneur and instructor in the Media Lab at the Massachusetts Institute of Technology, where he specializes in the display of digital information on physical media.

As for names in the popular scientific journalism today highlighting figures such as Alexander the Greek editor — in-chief of the monthly magazine «Popular mechanics», and from 2010 he was the chief editor of the magazine «National Geographic Russia»; Steve McCurry is an American photojournalist, author of the famous in all corners of the world photography «the Afghan girl» that first appeared on the cover of the magazine «national geographic»; Asya (Anastasia) Kazantseva is a science journalist, science popularizer, author of books «Who would have thought! How the brain makes us do stupid things» and « On the Internet, someone is wrong! Scientific research of controversial issues», as well as the winner of the prize in the field of popular science literature «Enlightener» (2014); Sergey Popov — author of the book «Stars: life after death», was a columnist for the magazine «Astrologer», collaborated with the Russian Binding, where he conducted a Popular Science Review, collaborated with the sites Astronet and Scientific.Ru, where, in particular, he conducted reviews, and in 2016 received the award «For Loyalty to Science» as the best popularizer.

There are significant changes in television journalism.

One example of such changes was the genre of «travel journalism». After the collapse of the Soviet Union, popular science programs on television became increasingly advertising and pseudoscientific in nature. By the early 2000s, the genre of travel journalism was revived on television. Programs about travel and life in remote regions of the planet are becoming the most popular. Various cultural and educational programs are gradually moving to highly specialized terrestrial and thematic TV channels, both cable and satellite.

The number of specialized travel channels of foreign and Russian production is also growing. Today you can name more than ten well-known travel channels — «Tele-trevel», «TravelChannel», « RussianTravelGuide», «My Planet», «Ocean-TV», «Viasatexplorer», «natgeowild», «Discovery travel&Living», «Outdoor-channel», «Viasatnature», «Nautica-channel», etc. According to «TNS Russia» in the top ten non-air channels are four educational — «Discovery channel», «Animal Planet», «National Geographic Channel» and «Hunting and fishing». Of these, the absolute leader is «Discovery channel» with an average monthly audience coverage of 9,442 thousand viewers. «Animal Planet» in this rating takes the 2nd place with coverage of 7,787 thousand viewers. In the top ten is also the TV channel «National Geographic Channel», which occupies the 7th place with 4,387 thousand viewers.

At the present stage of globalization, new opportunities are emerging for broadcasting popular science content — now programs are simultaneously broadcast on various media platforms, including the Internet. Modern popular science journalism on television is increasingly leaning towards travel journalism. Therefore, science-pop on television is changing in several specific directions at once:

1. The influence of the sponsors of the program on the topic of the issue.
2. Conditionality of preferred locations for filming by tour operators and travel service providers.
3. Stereotyping of certain cultural images, which is often accompanied by an image of the superiority of one culture over another.
4. Adoption of genre elements from TV programs of other orientation to attract the attention of the mass audience (as a rule, reality shows, humorous, culinary, game programs).

With the arrival of the latest stage of the era of globalization, a new group of media appears — popular science sites.

All information sites have their own audience, which has special characteristics of age, educational and psychological plan. It can be divided into two subgroups: youth and different ages. Both groups are active in the search for popular science information.

The content of popular science sites — articles, videos and other publications — is distinguished by a wide range of subjects and topics in the field of popularized sciences. The range of topics in the field of view of the creators of popular science texts is formed under the influence of objective and actual needs in the field of scientific knowledge, as well as society as a whole, realized by popularizers and transformed into

specific creative ideas. Of course, in the process of implementing the author's ideas, real opportunities are taken into account. Various online resources that publish popular science texts have their own subject-thematic focus. This is due to the needs of the audience and the goals of the site creators.

We emphasize that the materials of popular science sites are diverse and self-sufficient, the structure of their genre is a rapidly developing phenomenon that combines the fusion of not only scientific and entertainment styles, but also elements of information-analytical and artistic genres of journalism. The dynamics of genres is determined by the need to apply in each specific case the methods of presentation of material that correspond to the goals of display and effective communication. Different sites have their own stable set of genres.

In the course of the study, we found that a new, typologically separated group of popular science resources includes a set of different profile-oriented models. Of these, we will highlight the main ones: classroom, subject-thematic and genre models of these resources on the Internet. The orientation of the site to a particular typological model is determined by the desire of its creators to intelligently implement their creative ideas and capabilities, as well as to fully take into account the nature of the audience, its information expectations. Imitation of the typological model of already known resources by new sites serves them to attract an audience and create a «correct» image of an online publication.

The number of people who prefer to read the paper press is decreasing every year. This is associated with the rapidly developing Internet media. So, public opinion polls back in 2009 showed that only 19 % of US residents aged 18 to 35 years view the paper press. The average age of readers of paper newspapers in the United States is 55 years. If the total circulation of newspapers produced in the United States from 1989 to 2009 decreased from 62 million to 49 million copies per day, today these figures have increased significantly.

It can be concluded that today popular science publications have significantly changed their approach to publications — a scientific fact and an understandable, interesting presentation are enough. IT-oriented publications and multi-subject resources that cover all areas of scientific development in equal volume have a large audience coverage among popular science sites (according to analytical applications for Internet resources).

Thus, the study of electronic popular science publications is promising. Issues such as the form of publication and the current development of the genre of popular science journalism still require further study and analysis.

References

1 Аттали Ж. Карл Маркс. Мировой дух / Ж. Аттали. — М.: Молодая гвардия, 2008.

2 Бодрийяр Ж. Симулякры и симуляции / Ж. Бодийяр. — М.: Изд. дом «ПОСТУМ», 2015. — 240 с.

3 Шведова-Водка Г.Н. Общая теория документа и книги: учеб. пос. / Г.Н. Шведова-Водка. — М.: ЮНИТИ-ДАНА, 2009. — 487 с.

4 Сенкевич М.П. Литературное редактирование научных произведений / М.П. Сенкевич. — М.: Высш. шк., 1984. — 319 с.

5 Ваганов А.Г. Закономерности исторической динамики научно-популярного жанра / А.Г. Ваганов // Наука и школа. 2016. — № 1. — С. 165–170.

С.К. Карпова, В.Т. Абишева

Жаһандану дәуіріндегі ғылыми-танымдық журналистиканың дамуы

Мақалада ғылыми-техникалық жетістіктер кезеңіндегі ғылыми-танымдық журналистика жанрының дамуы мен қалыптасу мәселелері қарастырылған, мәтіндердің жанрларын анықтау мәселелері зерттелген және жаһандану дәуіріндегі ғылыми-танымдық әдебиеттер мен бұқаралық ақпарат құралдарының формалары мен тенденциялары сипатталған. Мақалада жаһанданудың негізгі кезеңдері сипатталған, олардың мәні ашылған. Авторлар бұқаралық ақпарат құралдарында ғылыми білімнің пайда болу процесін және таралуын зерттеген. Зерттеудің өзектілігі ақпараттық кеңістіктің қазіргі даму контекстін және ондағы эволюциялық өзгерістерді анықтау болып табылады. Жаһандану процесінде ғылыми-танымдық журналистика стилистикасының өзгеруіне ерекше назар аударылған. Ғылыми-танымдық журналистиканың жанрларына анықтама берілген және журналистиканың жағдайына жалпы талдау жасалған және осы бағыттың нақты формалары мен жанрлық белгілерін анықтау мәселесі көтерілген. Жанрлық оқшаулаудың маңыздылығы мақалада назар аударылатын

ғылыми-танымдық және ғылыми мәтіндерді ажырату қажеттілігімен байланысты. Авторлар техникалық прогрестің нәтижесінде кеңінен таралған ақпараттық ресурстардың жаңа жанрлық және типологиялық модельдерін сипаттаған. Одан әрі зерттеулер мен талдауды қажет ететін бағыттар анықталған.

Кілт сөздер: ғылымды танымал ету, ғылыми-көпшілік басылымдар, жаһандану, танымал етушілер, технологиялық серпіліс.

С.К. Карпова, В.Т. Абишева

Развитие научно-популярной журналистики в эпоху глобализации

Статья посвящена развитию и становлению научно-популярной журналистики, трансформации ее типологических моделей, жанровых форм, определению влияния социально-экономических, культурных и политических факторов на ее формирование. Расцвет жанра отмечен в советский период, как в сфере периодической печати, так и в области телевизионного и документального фильма. Цель научной популяризации мыслилась как развитие мировоззрения аудитории. В последующий период был несколько потерян интерес массовой аудитории к научной информации, утрачена связь с известными учеными, стремящимися подавать научную информацию ярко и доступно. Из телевизионного эфира практически исчезли не только научно-популярные программы, но и тема науки как таковая. В эпоху глобализации возрождается идея популяризации научного знания на основе исторически накопленного богатейшего опыта науки и ее взаимодействия с обществом. Распространение знаний, ставших сегодня государственным достоянием, ставятся в число основных национальных приоритетов мировых держав. Предлагаемая работа — это попытка проследить путь, по которому развивалась научно-популярная журналистика в меняющихся социально-культурных условиях жизни социума. Авторы подчёркивают, что одним из главных средств внедрения науки, популярных научных знаний в жизнь, безусловно, выступают научные СМИ.

Ключевые слова: популяризация науки, научно-популярные издания, глобализация, популяризаторы, технологический прорыв.

References

1 Attali, J. (2008). *Karl Marks. Mirovoi dukh [Karl Marx. The spirit of the world]*. Moscow: Molodaia hvardiia [in Russian].

2 Baudrillard, J. (2015). *Simuliakry i simuliatsii [Simulacra and simulations]*. Moscow: Publishing House «POSTUM» [in Russian].

3 Shvedova-Vodka, G.N. (2009). *Obshchaia teoriia dokumenta i knihi: uchebnoe posobie [The general theory of the document and the book: a textbook]*. Moscow: UNITY-DANA [in Russian].

4 Senkevich, M.P. (1984). *Literaturnoe redaktirovanie nauchnykh proizvedenii [Literary editing of scientific works]*. Moscow: Vysshaia shkola [in Russian].

5 Vaganov, A.G. (2016). *Zakonomernosti istoricheskoi dinamiki nauchno-populiarnoho zhanra [Regularities of historical dynamics of popular science genre]* // Nauka i shkola – Science and School. 1, 65–170 [in Russian].