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SCIENCE COMMUNICATION: BASIC TERMS, COMPONENTS OF THE COMMUNICATION PROCESS

НАУЧНАЯ КОММУНИКАЦИЯ: ОСНОВНЫЕ ТЕРМИНЫ, КОМПОНЕНТЫ КОММУНИКАЦИОННОГО ПРОЦЕССА

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ABSTRACT

SCIENCE COMMUNICATION, SCIENTIFIC COMMUNICATION, SCIENCE, MASS MEDIA, SCIENTIST, THEORY OF COMMUNICATION

This article examines the main approaches to the definition of the terms "science communication" and "scientific communication". Scientific communication is the interaction of scientists for creating new scientific knowledge. Science communication is viewed as the interaction of the scientific community with a mass audience, the presentation of the results of scientific activity for non-experts, the popularization of scientists as well as the results of the scientific activities in mass media. The authors

АННОТАЦИЯ

НАУЧНАЯ КОММУНИКАЦИЯ, КОММУНИКАЦИЯ В НАУКЕ, НАУКА, МАСС-МЕДИА, УЧЕНЫЙ, ТЕОРИЯ КОММУНИКАЦИИ

В статье рассмотрены основные подходы к трактовке терминов «science communication», «scientific communication». Scientific communication представляет собой взаимодействие ученых по созданию нового научного знания. Science communication рассматривается как взаимодействие научного сообщества с массовой аудиторией, представление результатов научной деятельности для неэкспертов, популяризация ученых и результатов научной деятельности в масс-

point out a new approach when the concept of "scientific communication" is included in the concept of "science communication".

медиа. Авторы отмечают новый подход, когда понятие «scientific communication» входит в понятие «science communication».

Researchers use two terms regarding science-related communication: "scientific communication" and "science communication". In the first case, they refer to communication as the interaction of scientists for creating new scientific knowledge. E. V. Reshetnikov defines scientific communication as "a specifically ordered system of social interactions aimed at search, accumulation, and dissemination of scientific knowledge about the reality, carried out through various channels, by different means, forms and institutions of communication" [2]. In the study "Scientific communication: the evolution of forms, principles of organization" the author considers three types of communication networks that functioned in three historically established forms of scientific communication: "Republic of letters" (XVII century), "Invisible college" (XIX–XX centuries), "Electronic invisible college" (late XX–early XXI centuries). Scholar A. A. Shirokanova in several works terms such mechanisms of scientific communication functioning as "invisible colleges", "Matthew effect", creation of remote network scientific teams ("collaborations"), and others [5].

The target audience in scientific communication includes the representatives of the scientific community. In the communication process, the following formats act as channels for transmitting information within the scientific community:

- scientific conferences (seminars, congresses);
- scientific publications (they serve as a means of replication (dissemination) of scientific knowledge);
- "direct connections" (personal conversations, online communication), etc.

Besides, due to the development of digital technologies, the presence of a scientist’s profile at Google Academy, the use of scientometric databases (such as WoS, Scopus, RSCI, and others) for organizing links to scientific publications are growing increasingly important.

However, more and more attention has recently been paid to considering specific features of building communication of a scientist and scientific organization with external audiences [3], [4].

In the second case, another term – "science communication" – is used to mean the interaction of the scientific community with a mass audience, the presentation of the results of scientific activity for non-experts, and the popularization of scientists and their activities via mass media.

The terminology associated with the concept of science communication includes such terms as "popularization of science", "scientific journalism", "scientific PR", "scientific communicator", "scientific journalist", and others.

The main means of scientific communication with a mass audience can be as follows:

- work with journalists (i.e. advising media representatives on issues within the competence of a scientific organization (institution); arranging events with the participation of journalists: press conferences, briefings, press lunches, press tours, etc.);
- composition and distribution of press releases, other materials for mass media (publishing of scientific information in a printed periodical, placing it on television and radio, posting it on the Internet; maintaining a column on science in socio-political publications; working with the aggregators of scientific news and press releases (e.g. EurekAlert, AlphaGalileo, Tass, etc.);
- posting science news on the website of a scientific organization, institution, or in the corporate print media;
- coverage of scientific events (e.g. scientific conferences, symposia, etc.) in mass media;
- participation of the representatives of the scientific community in special popular science events (e.g. in international projects Science Slam, International Fame Lab, "Kurilka Gutenberga", etc .);
- management of the organization's communicative resources that can be used as sources of information and platforms for communication (e.g. the design of a scientist's page on a scientific organization (institution) website; work with accounts on social networks and instant messengers).

The risks of the current situation regarding scientific communication include the distortion of the image of a scientist as well as of academic profession in general, the spread of pseudo-scientific knowledge, etc.

Scholar S. M. Medvedeva considers scientific communication to be "the movement of scientific ideas from a scientist through the scientific community to the mass consciousness". Under such an approach, the concept of "scientific communication" can be included in the concept of "science communication".

Taking into account the importance of science popularizing, S. M. Medvedeva suggests a five-step model of the movement and transformation of scientific ideas:

- first is the stage of the scientist (idea generation);
- the second is the stage of the scientific community (promotion of an idea within the scientific community, its design according to the rules of the paradigm);
- the third is the stage of interest groups (communication of scientists with

state and business, training of future specialists);

- the fourth is the stage of popular science (promotion of scientific ideas in popular culture);
- the fifth is the stage of artistic creation (the subject of communication is not knowledge, but the myth of science) [1, p. 278].

In this model, the emphasis is placed on the fact that science can be considered a kind of an intermediary for the triad "state-business-society". There are many obstacles in construction of such a communication process which Russian practices note in the following way: "Now the majority of universities are more interested in GR-service, that is, the main page of the site should display a photograph of the university rector with the president or prime minister, rather than tell about scientific achievements and developments of the professors of the university. <...> The other side of the problem is that press services of higher educational establishments have very little media expertise and resources to be engaged in educational activities themselves, which is the task that the media can help them with" [3].

Thus, the issue of promoting information about scientists and scientific studies for a larger audience is becoming increasingly important in the context of the theory of communication. There are various approaches to the use of terms that are related to the construction of communication on scientific activity. When optimizing the work with target audiences, it is important to determine the channels for the distribution of information as well as possible communication barriers.

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