

Original articles

Current state of science editing and publishing in Russia

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Abstract This paper analyses the current state of science editing in Russia. We describe the characteristics of science editing and the reputation of scholarly journals in Russia. We surveyed non-teaching staff, students and professionals in Moscow and analysed statistical information of the Scientific Electronic Library (Moscow, Russia). We present the main subject categories, number of published journals, major Russian publishers, research performance assessment, and problems encountered by authors and editors in Russia. Information distributed by Russian scholarly journals is credible. Better quality editorial work can improve the reputation of a Russian journal further. Cooperation with EASE could be instrumental in improving the quality of science editing.

Keywords Periodicals as topic, communication, Russia.

Introduction

Science editing in Russia has a long history. The first stage of its development dates back to the 19th century, when numerous specialised biomedical, legal, social and other periodicals were launched. Throughout the 20th century new forms and methods of editing were implemented, Russian journals gained international recognition and were catalogued by databases globally. Scholarly communication and international cooperation in scientific publishing intensified in the second half of the 20th century. Digital technologies and the Internet enormously influenced scholarly information processing and scientific publishing.

The Russian governance model has specific characteristics, such as considerable governmental regulatory influence and weak public and informal institutes¹, which affect many areas of academic life including research and development, the functions of academic institutions and journal editing.

Very few papers have analysed the state of science editing in Russia. There have been reports on editing generally² as well as in medicine³ and architecture⁴, primarily focused on solving problems with editing in Russia.

In 2012, the Russian Regional Chapter of the European Association of Science Editors (EASE) was launched and one of its aims was to develop science editing in Russia. The current paper is a part of activities of this Chapter. It analyses the characteristics of science editing and the reputation of scholarly journals in Russia. It also outlines the opportunities and benefits of cooperation with EASE.

Methods

We used statistical information freely available through the Scientific Electronic Library (SEL), elibrary.ru.

The primary source of information on the reputation of Russian science journals was our own paper published in the *Journal of Reputiology*.⁵ In 2010-2011 we distributed 132 questionnaires to non-teaching staff, students and professionals at the Russian Academy of Justice, Russian Customs Academy, Tax Academy of the Russian Federation, Maimonides State Classical Academy and others in Moscow. The questionnaire addressed: the reputation of Russian journals and the factors determining this; which were deemed to be the best journals in specific fields of science; and what should be in the journals and how they should work to improve their reputation. The respondents were selected to represent the population at large, and each was interviewed individually. We received 100 completed questionnaires.

Results & Discussion

Information from the SEL indicates that about 3,500 scholarly journals are published in Russia. More than 2,300,000 articles were published in these journals in 2005-2012. Information on more than 600,000 authors of these articles is recorded in the library database. 1,700 journals are now freely available in SEL. As of January 2013, the main subject categories covered by the library are economics, medicine, juridical science and education (Table 1). Interdisciplinary journals were included in several subject categories.

Subject categories	Number of journals
Economics	635
Medicine and health	585
Legal sciences	477
Education	356
Biology	292
Historical studies	270
Physical science	251
Mathematics	221
Agriculture & forestry	218
Psychology	214

Politics	208
Chemistry	202
Philosophy	200
Languages	194
Machine engineering	183
Culture	180
Protection of the environment	176
Automatics and computer science	175
Geology	145
Literature	138
Electronic engineering	135
Construction and architecture	133
Geography	77

Table 1. Main subject categories and number of journals in SEL (as of January 2013)

There are about 2,800 scientific publishers in Russia.⁶ Large publishers are based in Moscow, Saint Petersburg, Novosibirsk, Rostov on Don, Penza and other big cities. The top 10 Russian publishers represented in SEL are listed in Table 2. These include companies that publish and distribute journals and books as well as organisations that process scientific literature.

Publishers*	City	Number of articles in SEL
«NTI-KOMPAKT»	Moscow	327,046
MAIK Nauka/Interperiodica	Moscow	135,992
“Nauka”, Russian Academy of Sciences	Moscow	121,272
Central Scientific Agricultural Library, Russian Academy of Agricultural Sciences	Moscow	67,396
Institute of Scientific Information for Social Sciences, Russian Academy of Sciences	Moscow	23,735
“Academy of Natural History”	Penza	21,393
“Meditsina”	Moscow	21,366
Publishing Group “Jurist”	Moscow	18,935
Russian Foundation for Basic Research	Moscow	18,325
“Publishing house FINANCES and CREDIT “	Moscow	17,535

*All in Moscow except the Academy of Natural History which is in Penza.

Table 2. Top 10 Russian publishers represented in SEL (as of January 2013)

Representation of Russian journals in international databases

Only one in ten publications of Russian authors is indexed by international databases.⁷ The achievements of Russian science, particularly in social sciences and humanities, are especially poorly covered by the databases.

Currently 169 Russian journals are indexed in Web of Science (WoS)⁸, including 13 accepted in the last three years. The largest number of Russian journals is listed in the Science Citation Index Expanded (SCI-E) – 157, followed by Arts and Humanities Citation Index – 7 and Social Sciences Citation Index – 5⁸. No Russian journal in economics, political science or arts is indexed by WoS.⁸

Russian publications are better represented in SciVerse/Scopus, with a total of 300 indexed journals: physical sciences – 181, life sciences – 44, health sciences – 42, social sciences – 16, physics and astronomy – 2.

Research performance indicators

SEL ranks Russian journals based on scoring in its Science Index database, which puts physics and chemistry journals at the top (Table 3). The scoring system assesses the number of articles, number of bibliographic links, citations, etc.

Rank	Journal titles	Scores
1	JETP Letters	943612
2	Semiconductor Physics and Technology	380137
3	Semiconductors	376548
4	Physics of the Solid State	320332
5	Low Temperature Physics	259392
6	Doklady Akademii Nauk	236205
7	Physics-Uspekhi	199046
8	Physics of Atomic Nuclei	144214
9	Russian Chemical Bulletin	142566
10	Russian Chemical Reviews	132742

Table 3. Top 10 Russian science journals according to the Science Index by SEL (January 2013)

SEL also provides information on the most productive Russian scientists based on the number of published papers and citations recorded by this library. The four leading scientists are Valiev RZ, Eidelman SI, Ledentsov NN and Uversky VN. They work at physical and technical institutions of Moscow, Saint Petersburg, Novosibirsk and Ufa. The most productive Russian institutions are also in major cities (Table 4).

Russian institutions are expanding cooperation with major international publishers, eg some journals of Maik Nauka/Interperiodica Publishing are indexed by SCOPUS (Elsevier), and launching new journals such as Bulletin of Agrarian and Industrial Complex of Stavropol from Stavropol State Agrarian University. All published journals are subject to approval by the Supreme Attesting Commission (VAK).

Institution	N of papers	N of citations	H index*
Joint Institute for Nuclear Research (Dubna)	5,662	24,270	123
Lomonosov Moscow State University (Moscow)	23,497	18,360	70
Institute for Theoretical and Experimental Physics (Moscow)	2,603	15,033	106
Ioffe Physical-Technical Institute, RAS (Saint Petersburg)	5,604	15,085	115
Lebedev Physical Institute, RAS (Moscow)	4,084	14,582	118
Institute for High Energy Physics (Protvino)	1,449	15,858	100
B.P. Konstantinov Petersburg Nuclear Physics Institute, RAS (Gatchina)	2,013	12,741	106
Saint Petersburg State University (Saint Petersburg)	16,329	10,747	73
Budker Institute of Nuclear Physics SB, RAS (Novosibirsk)	1,737	10,708	85
Novosibirsk State University (Novosibirsk)	5,662	6,119	50

*H index is calculated using data from the SEL (e-library) database in the last five years (2007-2011).

Table 4. Top 10 Russian research institutions (as of January 2013)

Main matters raised by readers, authors and editors

Our survey revealed the following opinions regarding Russian science journals:

1. Most respondents (65%) considered these journals do not yet have a reputation, while 35% thought that these journals were not highly regarded.
2. Respondents did not always trust the information, thought the articles were of low quality and thought that journal design was poor.
3. The main content of journals should be new knowledge: respondents were equally divided in their preference for theoretical and practical topics.
4. The driver of a journal's reputation is considered to be the quality of its scientific articles. The Journal Impact Factor, founding body and social responsibility are judged as secondary factors.

Options to improve the reputation of Russian journals

1. Better editorial management
2. Emphasis on professional credentials of the authors, not on academic degrees and titles.
3. More attention to the readers' needs.
4. Publish more new information, with a balance between theoretical and practical.

Opportunities of science editing in cooperation with EASE

Science journals are facing challenging times, in Russia as well as elsewhere. Publishers and editors constantly search for new and effective directions of development. In line with this, the Russian chapter of EASE was founded in 2012. This was due to the enthusiasm of the editors of several Russian journals, namely *Journal of Economy and Entrepreneurship*, *Journal of International Scientific Researches* and *Journal of Reputiology*. The current secretary of the Russian chapter is Dr. Sergey V Gorin, Chief Editor of the *Journal of Economy and Entrepreneurship*.

The chapter's agenda is:

- to facilitate interaction amongst science editors in Russia,
- to arrange annual regional conferences and thematic meetings for editors in Russia,
- to promote the use of the EASE Guidelines and Science Editors' Handbook for editors, thereby raising the standards of science papers and journals in Russia.

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