### **Original article**

# The Russian Science Citation Index (RSCI) as a new trend in scientific editing and publishing in Russia

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**Abstract** *Aim*: The aim of the study was to provide an overview of the principle issues for the RSCI and assess the characteristics of the journals included.

*Methods*: We used statistical information freely available through the Scientific Electronic Library (Russia), and also WoS and SCOPUS. Authors analysed 9560 Russian scientific journals currently issued. The best Russian journals were found to be those in physics, astronomy and chemistry.

*Results*: The study shows the distribution of RSCI journals within academic spheres and among major publishers, noting the low percentage of journals available as both printed and online versions.

*Conclusions*: The RSCI project is improving scientific editing and publishing in Russia, and the better Russian journals have been grouped in a separate database. It remains unclear whether journals produced by RSCI will be able to enter SCOPUS or WoS. It is also uncertain whether the project will lead to greater numbers of Russian journals indexed in SCOPUS or WoS, or if it will improve scientific editing and publishing in Russia.

**Keywords:** Russian Science Citation Index, scholarly journal, Russia, communication.

#### Introduction

The citation index acts as the key indicator for assessing the work of researchers and research teams<sup>1</sup>. The Science Citation Index (SCI) allows an assessment of the quality of scientific research or the influence of a scientist on world science. The need for assessment of the quality of scientific research and the contribution of Russian scientists has set in motion a process of integration into the world scientific community.

Since September 2014, the Scientific Electronic Library firm (Moscow, Russia) and Thomson Reuters have been carrying out a project to integrate Russian scientific journals with the Web of Science platform<sup>2</sup>. The idea behind this collaboration was to identify the most important and most often consulted Russian scientific journals and place them in a separate RSCI database, integrated with the Web of Science platform, similarly to the Chinese Science Citation Database and the SciELO Citation Index.

As of January 2016, a total of 9560 scientific journals<sup>3</sup>

were published in Russia. Of these, 169 are indexed in WoS – just 1.77%. SCOPUS indexing is available for 331 of these journals (3.46%)<sup>4</sup>. Only 139 (1.45%) have both print and online versions. One fifth of Russian printed and online journals (20.7%) are indexed in SCOPUS. These results suggest that only a small and insignificant proportion of Russian scientific journals are indexed in WoS and SCOPUS. This situation underlines the need for a project to integrate Russian scientific journals within the platform of WoS – the Russian Science Citation Index (RSCI).

Specialists at the Scientific Electronic Library (Moscow, Russia) and Thomson Reuters split the process of integration of Russian scientific journals in the Web of Science into two stages. The first stage involved selecting journals on the basis of formal criteria using bibliometric systems. Then, at the second stage, experts selected different kinds of journals on the basis of their scientific value and demand5. A working group was set up to make this selection, whose members coordinated work done by specialist topic-based subgroups. The work of the expert subgroups formed the basis for decisions taken by the working group about which journals to include in the RSCI. These decisions were made using the following information: the compliance of each journal with the formal criteria for selection, the significance of the bibliometric indicators of each journal, the results of expert assessment of the journals in the main topic categories and the results of public examination of the journals by leading Russian scientists registered with the Scientific Electronic Library.

This research was conducted due to the fact that the RSCI has created a new trend in scientific editing and publishing in Russia. The aim of the study was to provide an overview of the principle issues for RSCI and assess the characteristics of the journals included.

#### Methods

For the analysis of scientific journals, we used statistical information freely available through the Scientific Electronic Library (Russia), as well as WoS and SCOPUS.

In the first stage, the sample of Russian scientific journals that are part of RSCI was formulated using tools for searching scientific information and the elibrary.ru services. In the second stage, the main indicators for analysis of the structure of the chosen journals were selected. These were: the thematic direction, the publishing house, and the Science Index rating. The Organization for Economic Cooperation and Development (OECD) rubricator was taken as a basis for division in the direction of sciences. The following main directions were identified:

- 1. Mathematics, computer and information sciences
- 2. Physical and chemical sciences, astronomy
- 3. Earth and related environmental sciences
- 4. Biological sciences
- 5. Engineering and technology
- 6. Medical and health sciences
- 7. Agricultural sciences
- 8. Social sciences
- 9. Humanities
- 10. Multidisciplinary sciences

Scientific journals with print and online versions were analysed separately.

#### Results

A total of 650 Russian scholarly journals was listed in the RSCI<sup>6</sup>. 129 are available in print and online (21.4%), 97 (14.9%) are fully indexed in SCOPUS<sup>7</sup>. The majority are in the fields of physics, astronomy, and chemistry (18%), followed by those in the social sciences (16.6%), then medical and health sciences (15.5%) (Table 1).

Field of study	Journals No. (%)	Titles in print and online No. (%)
Physics, astronomy, chemistry	117 (18)	20 (14)
Social sciences	108 (17)	12 (9)
Medical and health sciences	101 (16)	41 (29)
Maths, computer sciences	95 (15)	24 (17)
Engineering and technology	75 (12)	12 (9)
Biological sciences	54 (8)	8 (6)
Earth, environmental sciences	53 (8)	8 (6)
Agricultural sciences	22 (3)	0 (0)
Multisubject	13 (2)	2 (1)
Humanities	12 (2)	12 (9)
Total	650 (100)	139 (100)

#### Table 1. Distribution of scholarly journals in the Russian Science Citation Index, available in print and online, according to field of study (data collected in January 2016)<sup>8</sup>

The majority of these journals are published by 'Nauka', 'Medicina', and 'Media Sphera' publishers (Table 2). Overall, 312 (48%) are published by publishers that issue more than one publication.

Publisher	Titles No. (%)	Titles in print and online No. (%)
Nauka ('Science') publishers	122 (63)	8 (13)
Medicina publishers	18 (9)	12 (20)
Media Sphera publishers	15 (8)	15 (25)
VyshayaShkolaEkonomiki ('Higher School of Economics') national scientific university	13 (7)	3 (5)
Tomsk State University national research university	6 (3)	5 (8)
Pleiades Publishing, Ltd.	5 (3)	4 (7)
MAIK "Nauka/Interperiodika"	5 (3)	2 (3)
The Schmidt Institute for Earth Physics of the Russian Academy of Sciences.	4 (2)	4 (7)
Calvis	4 (2)	4 (7)
Moscow City Psychological & Pedagogical University	3 (2)	3 (5)
Total	195 (100)	60 (100)

## Table 2. Top ten printed and online journals in the Russian Science Citation Index, listed by publisher, for January 2016<sup>9</sup>

The top ten Russian journals of the RSCI based on ratings for January 2016 are shown in Table 3. The ratings are dominated by journals in physics, astronomy, and chemistry.

#### Discussion

Analysis of the characteristics of Russian scientific journals in the RSCI list shows that the majority are devoted to physics, astronomy, chemistry, social sciences, and medical and health sciences. Nearly half are produced by publishing houses that release more than one journal. This allows publishers to optimise expenses and is the best way to use market opportunities.

In our opinion, the process of selection of scholarly journals has had a positive impact on science editing and publishing in Russia. Since the process of integration of Russian scientific journals with the WoS platform first started, publishers have raised the quality requirements for the articles they accept, so that they meet international standards, and improve their chances of being included in the RSCI. This has prompted a general rise in the standard of scientific editing and publishing.

For Russian scientific journals, integration with the WoS platform offers a good opportunity to be read and cited by a community of more than 20 million WoS users around the world. For Russian scientists, such integration can increase their popularity in the world scientific community and facilitate work with foreign authors.

Journal title	Publisher	Field of study	Science index rating
Successes in Chemistry	'Successes in Chemistry' publishers	Physics, astronomy, chemistry	32.507
Successes in Physics	'Successes in Physics' editions	Physics, astronomy, chemistry	21.857
Economic Issues	'Economic Issues' editions	Social sciences	19.975
Philosophical Issues	Nauka Publishers	Humanities	18.713
Molecular Medicine	RusskyVrach (Eng. 'Russian Doctor') Publishers	Medical and health sciences	8.831
The Journal of Economic Law of the Russian Federation	Zakon (Eng. 'Law') Publishing Group	Social sciences	7.264
Petrology	Nauka Publishers	Earth, environmental sciences	7.146
Geo-Techtonics	Nauka Publishers	Earth, environmental sciences	7.071
APK – Economics & Management	APK "Economics & Management"	Agricultural sciences	7.064
The Journal of Russian Law	'Norma' Legal Publishers	Social sciences	7.018

#### Table 3. Top ten Russian journals in RSCI for January 2016<sup>10</sup>

Journals listed in RSCI offer significant possibilities for top-end authors to have their articles cited. Publishers will need to continue to maintain the highest standards in scientific editing and publishing. This will serve to further improve the levels of scientific editing and publishing. Howver, it remains unclear whether these journals will actually make efforts to be indexed in SCOPUS or WoS, or remain listed only in local databases.

Russia has an extremely low proportion of scientific journals that are available in both print and online. The numbers of printed journals dedicated to topics such as biological sciences, social sciences and agricultural sciences are almost negligible. Among the top ten Russian scientific journals listed by ratings, only one, *Successes in Chemistry*, is available both in print and online.

The RSCI project has even had a positive effect on journals that are not listed in RSCI, as these journals are now trying to raise their standards in the hope of being included in RSCI (or in SCOPUS/WoS) in future.

At the first Russian EASE seminar on science communication, questions were raised about more active indexing of Russian journals in international databases, correcting the link format, modernising the standards of expert evaluation, and publication ethics<sup>11</sup>.

The top-end Russian journals have been grouped in a separate database, which is integrated with WoS. It is not clear whether the journals in RSCI will continue to try to be indexed in SCOPUS or WoS. It is also not clear whether the development of RSCI will lead to more Russian journals being indexed in SCOPUS or WoS, and whether it will prompt a higher overall level in scientific editing and publishing in Russia.

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