

## ETHICAL NORMS AND LEGAL FRAMEWORK OF SCIENTIFIC PUBLICATION

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DOI: 10.20948/mathmontis-2019-45-11

**Summary.** Scientific research is conducted, as a rule, for a long period of time. At certain points, researchers prepare publications that reflect the results obtained at the current stage. For example, suppose a multi-year research project has several reporting periods, at each of which researchers present to the customer publications created in the reporting period. Then, since the publications are related to a common theme, their texts inevitably have intersections associated with the description of the conditions of the problem, the context of research, the methods used, etc. How will publishers react to such publications? Codes of ethics for scientific publications not encourage duplication of text fragments in several articles. Do ethical codes restrict the author's freedom to create a derivative work that uses fragments of text from articles he has previously written? Can the author free to publish his article in multiple publications?

According to the Civil code of the Russian Federation, the creation of derivative works is one of the ways to realize the exclusive right of the author to the work. The Civil code does not regulate specific permissible methods and volumes of processing of a scientific work. The feasibility of creating a derivative work is entirely within the competence and responsibility of the author.

The Civil code of the Russian Federation establishes the mechanism of simple (non-exclusive) licenses: any publisher can obtain from the copyright holder a simple license to publish the article, including without its processing. Publication of an article in several journals is one of the ways enshrined in the law to realize the right of the author (copyright holder) to publicize the work. The discussion in the scientific community on whether it is ethical to publish an article in several journals often makes no sense. The ethical sphere can only include the obligation of the author to inform the publisher about the held or planned publication of the article in another journal.

### 1 INTRODUCTION

Scientific research is usually conducted over a long period of time. At certain points, researchers prepare publications that reflect the results obtained at the current stage. For example, suppose a multi-year research project has several reporting periods, at each of which researchers present to the customer publications created in the reporting period. Because the publications are related to a common theme, their texts inevitably have got intersections associated with the description of the conditions of the problem, the context of the research, the methods used, etc. How will publishers react to such publications? Codes of ethics for

**2010 Mathematics Subject Classification:** 00-02, 00A99.

**Key words and Phrases:** Scientific publication, Text recycling, Redundant publication, Exclusive rights, Derivative work.

scientific publications now tend to assess cases of repeated use of the text in several articles of the author as a significant violation.

Do ethical codes restrict the author's freedom to create a derivative work that uses fragments of text from articles he has previously written? Can the author free to publish his article in multiple publications? How does the Civil code of the Russian Federation (hereinafter — the Civil code) [1] protect the intellectual rights of authors?

## **2 CODES OF ETHICS OF SCIENTIFIC PUBLICATIONS**

Consider the well-known code of ethics developed by the Committee on Publication Ethics (COPE) [2]. Ethical principles of COPE were formulated in 1997 to address ethical concerns in research and publication. Major companies and associations operating in the field of pharmacology and medicine, publishers of medical journals participated in the development of the COPE code of ethics. The code addresses the issues of research ethics, reliability of the data obtained, correctness of the data analysis methods used, completeness and openness of the results publication. The code also includes topics of conflict of interest, falsification of research, biased evaluation of results, etc. In medicine and pharmacology these problems are extremely important.

Other topics of the code cover issues common to many areas of knowledge: authorship, peer review, illegal actions of participants in the publishing process, plagiarism, re-use of the text in several articles of the author (self-plagiarism, text recycling), excessive publication (redundant publication).

Reuse of the text or "self-plagiarism" is a very urgent problem, which is currently actively discussed among the editors of scientific publications. The facts of reuse of texts are now easily established: overlapping texts in several articles are identified with the help of programs such as "Anti-plagiarism".

Editors can make certain decisions regarding the publication of the article depending on the extent to which the text of the article intersects with the author's previous publications, in which sections of the article fragments of the text from earlier publications are found. In accordance with the recommendations of COPE, editors should consider cases of text re-use on an individual basis, since the adequacy of the editor's actions will depend on many factors.

In some cases, the revision of the text is not a serious violation, and the authors do not have to correct such parts of their article. If the overlap of the text is unjustified, but insignificant, the COPE instruction recommend to the editors to suggest the authors to rewrite the overlapping sections or to make the text in the form of a quotation from the previous articles. A larger overlap may result in rejection of the manuscript.

Note how the COPE code defines the term "redundant publication". The term refers to the case when several articles without reciprocal link is devoted to the description of the results of one study put the same tasks, formulates the same conclusion and so on. Ethical standards declared by the code are the following:

- 1) published research results should not be repeated, unless it is associated with a special case of additional confirmation;
- 2) publication of abstracts at the conference (other event) does not exclude further publication of the full version of the article;
- 3) publication of the article in another language is acceptable provided that the full meaning and adequate translation;

4) at the time of submission of the article to the journal, authors should indicate all related articles, including translations into other languages.

The first point in the above list requires editors to reject the previously published article, but the rigidity of such a decision is understandable in the context of the characteristics of the subject area (pharmacology, medical science). If the authors publish the same results in several journals, the medical professionals may be deformed idea of the scale, complexity and importance of the study. Such distortions can eventually lead to negative consequences in practical medicine.

The following paragraphs formulate perfectly acceptable, natural ethical rules to be followed by an author working in any scientific field.

The COPE code is not a directive document binding on all editors, reviewers and authors. The code is a kind of guide that offers the participants of the publishing process ways to solve certain ethical problems. At the same time, the COPE website provides a forum where you can express your opinion on a specific case of application of the rules of the COPE code. The developers of the code express their readiness to change some of its provisions based on the results of an open discussion.

Participants in the discussion on the COPE website [3] often express opposing views on some ethical rules, in particular on the reuse of text (text recycling). Someone annoyed by the constant repetition of the same text in several articles by the author ([3], Charlotte Seidman post, 22/2/2013 7.42 pm). Someone refers to other examples where reuse of the text is necessary. Thus, there is often a need for introductory paragraphs that describe a larger project, thus creating the context of the work in the article on one of the directions of this large project. Forcing authors to revise such paragraphs does not improve the content of the article. Generally, paraphrasing degrades the quality of the text or leads to lengthening of the article ([3], Justin Starren post, 28/2/2013 2.03 pm).

In the discussion on the COPE website there is an opinion that there is no ethical flaw in the reuse of the text ([3], Soumitra Kumar post, 12/3/2013 8.31 am). The author of this post develops an extravagant idea that the article could be constructed using existing text modules. As the author notes, such a constructive approach to writing an English-language article could benefit, in particular, researchers for whom English is not a native language.

The expressed design idea corresponds to the technology of reuse of program code, when previously written program blocks are included in the program. Code reuse is widely used in programming. Including a previously written and debugged block in his new program, the programmer knows that such a modernization of the project will expand the functionality of the system and most likely will not lead to errors.

This is not the case with reuse of the text. There are a lot of contradictions. The inclusion to the new article the fragment of the text from the previously written paper entails a violation of ethical norms. At the same time, a link to a previously published article, placed instead of the desired text fragment, does not allow the reader to directly get acquainted with the context or conditions of the project. And if you follow the editor's recommendation to "rephrase the text fragment", such reformations can cause a lot of questions from the reader. Seeing the new lexical set of words and expressions in a familiar text, the reader will be puzzled: has the author's position changed, has there been any new data on the previously discussed issue?

The COPE code of ethics for scientific publications is very popular. This code is widely implemented in Russia [4-6]. The ethical rules of many Russian journals are based on the COPE recommendations. Sometimes the provisions of the COPE code are reworked, often in

the direction of tightening. For example, in the code of ethics of scientific publications on the portal psychological publications PsyJournals.ru [7] ethical standards relating to the re-publication, are collapsed into a single rule:

*"Authors should not submit to the journal a manuscript that has been sent to another journal and is under consideration, as well as an article already published in another journal."*

Less categorically expressed the final document of the conference "Problems of quality of scientific work and academic plagiarism", held on September 26, 2018 [8]:

*"Multiple publication of an article (replication, self-plagiarism) means reprint by the author (s) of his / her own works, which is not justified by any objective reasons (changes in the text of the article, translation into another language, appeal to another readership, inclusion of the text of the article in a thematic selection or anthology) and without specifying the source of the initial publication."*

Not a bad formulation, which, in particular, covers the case of the publication of an article in the journal after the preprint publishing: there is definitely an appeal to a different, generally speaking, wider readership.

In our opinion, the current restrictions on the publishing and spreading of the article may infringe the rights of the author (copyright holder) to promulgate his work, i.e. to bring it to the general public. Often, the distorted interpretation of ethical norms hides the routine market competition of journal publishers. In this way the publisher wants to gain a competitive advantage from the exclusive publication. After publishing the article in the journal, many publishers offer authors to re-publish the article in thematic collection (see, for example, the proposal of the publishing house "Science" [9]), thus obtaining additional income from spreading and sale of previously published articles.

At the same time, ethical considerations about the inadmissibility of multiple publication of the same work cannot be completely discarded. But ethical norms only come into effect when multiple publication takes ugly forms. It is hardly a normal situation when the same article appears in dozens of magazines. Here, indeed, there is a violation of ethics, as the reader is forced over and over again to stumble upon identical texts. In this case, it is usually easy to see the attempt of an unscrupulous author to harshly increase his publication figures.

### **3 THE CIVIL CODE OF THE RUSSIAN FEDERATION ABOUT PROTECTION OF INTELLECTUAL PROPERTY RIGHTS**

Part IV of the Civil code is devoted to the protection of intellectual rights. There, in section VII "Rights to results of intellectual activity and means of individualization", article 1225 defines the types of results of intellectual activity to which state protection is granted. The result of intellectual activity, in particular, is a work of science. One of the types of works of science is a scientific paper written by the author on the results of scientific research. The paper is created for the purpose of its further publishing. Relations between the author and the publisher are regulated by the provisions of the Civil code.

According to the Civil code, the author (or employer) has the exclusive right to the created work. What exactly does the exclusive right to the work include? According to paragraph 1 of article 1270 of the Civil Code, the copyright holder may use the work in any form and in any manner not contrary to the law.

Paragraph 2 of article 1270 lists the following ways of using the work:

- reproduction of the work, i.e. making one or more copies of the work or part of it in any material form;
- spreading (distributing) the work;
- translation or other processing the work;

et al.

Let us return to the ethical question of reusing the text of the paper discussed above. In terms of the Civil code we are talking about the creation of derivative works as a result of processing the original work.

Processing is one of the ways to realize the exclusive right of the author (copyright holder) to the work. The Civil code of the Russian Federation does not regulate specific permissible ways and volumes of processing of a scientific work. The expediency of creating a derivative work is entirely within the competence and responsibility of the author (copyright holder) of the work.

The author has no restrictions on the creation of derivative works based on the original work. No license agreements or even an agreement on the alienation of the exclusive right to the work deprive the author of the right to create derivative works. Paragraph 4 of article 1233 of the Civil code reads as follows:

*"The conditions of the agreement on alienation of the exclusive right or the license agreement limiting the right of the citizen to create results of intellectual activity of a certain kind or in a certain area of intellectual activity or to alienate the exclusive right to such results to other persons are void".*

Thus, with regard to future works, the Civil code protects the author from contracts that infringe the interests of the author. In the Russian Federation, the publisher in the contract may not require the author not to create derivative works in the future.

Derivative works should occupy a legal place in the space of scientific publications.

The author has the right to create derivative works, focusing on different audiences of readers. For example, a publication describing the results of work on the creation of a computational model, addressed to specialists in the field of mathematics, can reveal the details of the formal mathematical apparatus and applied computational methods. In the derivative publication on the same subject, but focused on IT-specialists, the emphasis will be shifted towards the description of the architecture and functionality of the software complex, serving the constructed mathematical model.

Derivative works may reflect the author's new views on the subject of research, clarify the tasks, adjust or supplement the previously obtained results, etc.

The author can create his work in the technology of live publications. The author of the live publication takes the responsibility not only to constantly improve his work, but also to monitor development in the research area and systematically reflect everything new in his online text [10]. At some point, the author can publish an article in the journal — a fixed time slice of a live publication — and continue to develop his work. Having accumulated new, quite interesting facts and results, the author can re-publish another time slice of his continuously developing work. Thus, the original work may give rise to a family of derivative works intended for publication in journals.

The derivative work can be created by the author specifically for the functioning in the Internet. Such work is implemented not in the form of a text file, but on a special

technological platform. In comparison with the usual text, an online scientific article can have new qualities: flexible text visualization in the technique of adaptive design, multimedia illustrations, online computing, etc.

Finally, the author can write a monograph, which will include the texts of several articles of the author. The monograph is a traditional type of scientific production. Despite the fact that in today's conditions writing a monograph is not encouraged by officials from science, leading scientists continue this vital scientific tradition [11].

Does the author have the right to publish an article in several journals? Publication of the work in several editions is a legal way to implement the exclusive right specified in paragraph 11 of article 1270 of the Civil code:

*"(11) making the work available to the public in such a way that any person may access the work from any place and at any time of his own choice (making it available to the public)."*

From the point of view of the Civil code, it is also permissible to publish the same article in different journals without processing on the terms of a simple (non-exclusive) license — in this way the right holder has the opportunity to expand its readership, to acquaint the general scientific community with the results of the research.

Does the publisher have the right to reject an article on the grounds that it has already been published in another journal? Certainly, yes. Moreover, the publisher has the right to reject the article and for any other absurd reason, as well as without explanation. The only thing that the publisher does not seem to need to mention here is that he is guided by high ethical considerations in this questionable decision.

#### **4 NEW RELATIONS BETWEEN AUTHOR AND PUBLISHER**

Technologically multiple publication, in our opinion, is a phenomenon of yesterday, accompanying the transition stage in the development of means of representation of scientific knowledge. Already now there is a new model of relationship between the publisher and the author, which does not lead to multiple publications.

The paper [12] presents an open platform for the organization of review by the publisher of the journal of open access preprints of articles previously placed in the popular open archive arXiv.org. The author submits his / her article to the journal directly from arXiv.org. The journal reviews the article by its experts. After successful peer review, author corrects his article, and the article is published again in arXiv.org. The journal assigns a DOI to the article and publishes a link to such article.

This kind of relationship can, generally speaking, arise in the author with several magazines. If all these journals, after successful evaluations of the article, publish only links on the article, that is placed in arXiv.org, then duplication of the text of the article is not happening. At the same time, the editors of any of the journals may, of course, decide to publish the full text of the article.

The publication of an article in one form or another in several journals should not have a negative connotation. On the contrary, the author can be deservedly proud of the fact that his article received a kind of quality mark from several magazines.

About these new trends in "Green OA" told, in particular, the representative of the company Clarivate Analytics in Russia Oleg Utkin on held in may 2019 public hearing in the

Presidium of the Russian Academy of Sciences, devoted to the development in Russia open access to scientific publications [13]. The essence of the "Green OA" model is that the author, after internal review, places his article (preprint) in an open archive deployed on the website of his organization. Only then the article is sent for review to specialized scientific journals. After a positive review link to the article is placed on the website of the journal.

## 5 CONCLUSION

The legality of creating a new work on the basis of previously published works of the author is actively discussed among the editors of scientific publications. As already mentioned, the facts of re-use of texts are now easily established with the help of programs such as "Anti-plagiarism". Editors can make certain decisions regarding the publication of the article depending on the extent to which the text of the article intersects with the author's previous publications, in which sections of the article reused fragments are found, etc. In accordance with the norms of publication ethics, editors should consider cases of text processing on an individual basis.

The publication by the author of derivative works containing fragments of the text from his previous articles should not refer to violations of publishing ethics. The Civil code of the Russian Federation assigns to the author the right to create derivative works. Derivative works can be oriented to different readership, reflect new views of the author on the subject of research, adjust or supplement the results obtained earlier, etc. Derivative works should occupy a legitimate place in the space of scientific publications.

The discussion in the scientific community on whether it is ethical to publish an article in several journals makes no sense. The ethical sphere can only include the obligation of the author to inform the publisher about the held or planned publication of the article in another edition. The Civil code of the Russian Federation establishes the mechanism of simple (non-exclusive) licenses: any publisher can obtain from the copyright holder a simple license to publish the article, including without its processing. The publication of articles in several journals — this is one of the enshrined in the law of natural methods of implementation of the rights of the author (copyright holder) on a wide publication of a work.

## REFERENCES

- [1] "Grazhdanskii kodeks Rossiiskoi Federatsii", *ConsultantPlus*, website: URL: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_5142/](http://www.consultant.ru/document/cons_doc_LAW_5142/) (accessed August 08, 2019).
- [2] "Guidelines on good publication practice": Committee on Publication Ethics (COPE), *Library of Financial University under the Government of Russian Federation*, website: URL: <http://www.library.fa.ru/files/GuidelinesGPP.pdf> (accessed August 08, 2019).
- [3] "How to deal with text recycling": Text Recycling Guidelines, *COPE*, website: URL: <https://publicationethics.org/text-recycling-guidelines> (accessed August 08, 2019).
- [4] "Podgotovka i izdanie nauchnogo zhurnala. Mezhdunarodnaia praktika po etike redaktirovaniia, retsenzirovaniia, izdaniia i avtorstva nauchnykh publikatsii: Sbornik perevodov", O.V. Kirillova (Ed), *Akademiya ANRI*, website: URL: [https://academy.rasep.ru/files/documents/\\_\\_\\_\\_3\\_1.pdf](https://academy.rasep.ru/files/documents/____3_1.pdf) (accessed August 08, 2019).
- [5] "Eticheskie printsipy nauchnykh publikatsii": Declaratsiia, *Assotsiatsiya nauchnykh redaktorov i izdatelei*, website: URL: <https://rasep.ru/sovet-po-etike/deklaratsiya> (accessed August 08, 2019).

- August 08, 2019)
- [6] “Spisok i obieiasnenie priznakov nekorrektnoi redaktsionnoi politiki”, *Dissernet*, website: URL: <http://biblio.dissernet.org/prizn> (accessed August 08, 2019).
  - [7] “Kodeks etiki nauchnykh publikatsii”, *Portal psikhologicheskikh izdaniy PsyJournals.ru*, website: URL: [http://psyjournals.ru/info/code\\_of\\_ethics.shtml](http://psyjournals.ru/info/code_of_ethics.shtml) (accessed August 08, 2019).
  - [8] “Itogovi dokument konferentsii ‘Problemy kachestva nauchnoi raboty i akademicheskii plagiat’“, *Novosti Sibirskoi Nauki*, website: URL: <http://www.sib-science.info/ru/conferences/itogovyy-dokument-09102018> (accessed August 08, 2019).
  - [9] “Novye vozmozhnosti: izdanie sbornikov”, *Izdatelstvo Nauka*, website: URL: <https://naukapublishers.ru/history/novosti/novosti-izdatelstva/229-novye-vozmozhnosti-izdanie-sbornikov> (accessed August 08, 2019).
  - [10] M.M. Gorbunov-Posadov, “Zhivaia publikatsiia”, *Keldysh Institute of Applied Mathematics of RAS*, website: URL: <https://keldysh.ru/gorbunov/live.htm> (accessed August 08, 2019).
  - [11] M.P. Galanin, M.M. Gorbunov-Posadov, V.P. Kandidov, T.A. Polilova, “Publication of the scientific monograph in Russia”, *Mathematica Montisnigri*, **39**, 146-160 (2017), website: URL: <http://www.montis.pmf.ac.me/vol39/13.pdf> (accessed August 08, 2019).
  - [12] E. Gibney, “Open journals that piggyback on arXiv gather momentum”, *Nature*, website: URL: <https://www.nature.com/news/open-journals-that-piggyback-on-arxiv-gather-momentum-1.19102> (accessed August 08, 2019).
  - [13] S. Beliaeva, “Tsena otkrytosti: Vo chto oboidetsia perekhod k Open Access?”, *Poisk*, website: URL: <https://www.poisknews.ru/skript/czena-otkrytosti-vo-chto-obojdetsya-perehod-k-open-access/> (accessed August 08, 2019).

Received June 17, 2019