Plagiarism detection – how we do that

Otkrivanje plagijarizma – kako mi to činimo

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Key words: plagiarism; ethics; biomedical research; writing.

Introduction

Scientific research is the privilege of exceptional people who are at the top of the intellectual and professional ladder. Unfortunately, there are a great number of experts today who tend to be easily included in scientific and academic community, sometimes through a shortcut that is often just a plagiarism.

Considering plagiarism we should not forget that the most important question is who and for what reasons commits plagiarism – whether it is the one who starts his/her career or the one with already gained reputation in the field of scientific publications. And also – whether it happens intentionally and knowingly or in terms of just a coincidence and pure ignorance.

Ethics and plagiarism

Speaking of plagiarism, we should involve the concept of ethics, because, basically, plagiarism is just a matter of ethics. On the other hand, it seems that ethics is frequently used word, so that it is not unnecessary to remind yourself what it is.

For Kant's followers, through utilitarianism and pragmatism, the philosophical concept of ethics has changed. Therefore, the concept of medical ethics is changeable, too. The simplest definition is: "Ethics is a theory or system of moral values".

Plagiarism means using someone's ideas and writing without proper citation.

Plagiarism also means presenting someone's words or ideas as to the right of ownership of another person. Fortunately, it can be completely legal, with the approval of one who owns the copyright. However, consideration of plagiarism usually refers just to the opposite – to something that is fake or even stealing. Basically, plagiarism may be ignorance or inexperience of the person who is about to start a career in publishing.

Perpetrators of plagiarism

A variety of individuals or institutions deal with plagiarism in scientific publications:

1. Plagiarism searching services, which provide free search or search with appropriate monetary compensation to individuals or institutions.

2. Editors and professional teams in the scientific journals that check the content of submitted manuscripts to plagiarism.

3. The perpetrators of plagiarism, who sometimes deliberately try to duplicate the material in order to manipulate and provide some profit.

4. The authors, from whose article the original material has been taken.

5. Reading public, who often notice someone else's work.

6. Unfortunately, the patients can be found, on this list, too, who may be damaged by harmful publications in biomedical journals.

A questionnaires-based survey conducted among medical students and the university staff, about how much they knew about referencing papers downloaded from the Internet and other sources, showed unsatisfactory results. Medical students knew better the use of quotation marks when copying the text literally (verbatim) (17%) than the university staff (16%), and only about half of both of them had knowledge of referencing within the power point-in programme. Totally 88% of university staff and 63% of medical students showed some knowledge about self-plagiarism, and all have possessed little knowledge of copyright law. However, the majority of the survey respondents (82% of students and 73% of employees at the university) claimed that had never used plagiarized
work. It is obvious there is the lack of proper education about the plagiarism, not only in developing countries but in developed countries, too. Hereof, it is necessary for a young physician-researcher to be introduced in the world of biomedical publications through thematic lectures, courses, seminars, workshops and other appropriate forms of education in order to become a quality healthcare professional.

Plagiarism detection

On the whole, work on plagiarism detection is a very hard work of skilled individuals and teams striving to preserve truly original ideas and valuable works from misuse by those who, on the one hand, abuse copyright infringement, and, on the other hand, allow themselves career advancement and ultimately – economic profit. Thus, plagiarism detection is an attempt to protect one’s possession, and ultimately conviction and punishment of those who reach for other people’s possession. But it is not a police investigation. It is, too, everyone’s benefit, not only to society as a whole, but to perpetrators of plagiarism, especially when it comes to a young researcher to learn an important lesson for his/ her future work.

Obviously, detecting plagiarism is not a popular work. It is no way to get Nobel Prize for this work.

Plagiarism detection in biomedical journals can be done only by experts – these are usually editors and the members of editorial boards. So, these persons must have necessary professional and scientific knowledge of the matters being investigated, as well as experience. They must be adequately trained. Also, people involved in finding plagiarism in biomedical journals have to be very consistent persons. If they are physicians, we should bear in mind that in the process of detecting plagiarism they must check the manuscripts of their colleagues. On the one hand, they should not violate the author, and, on the other hand, they should not allow previously published articles (also by physicians) to be abused. Therefore, they must be objective, but, often, it is necessary to endure various kinds of pressure that are possible in such situations. That can be a problem.

Once detected, a perpetrator of plagiarism becomes the subject of condemnation and punishment. This refers to authors who are not permitted to publish in a journal for some time, or to enjoy special privileges earned through a plagiarized article (academic degrees, career development, additional earnings, etc.), to those who are exposed to judgment of colleagues, to a sort of court of honor within their professional units, etc. In such cases, different forms of pressure on editorial board are more likely to be exerted.

What is the reaction of perpetrators of plagiarism after some of the measures have been undertaken?

The easiest way is denial and that is just what they do. Perpetrators of plagiarism usually claim to have annoyingly duplicated someone else’s work. This is the simplest form of what they consider as justification. Then, it is followed by long phone conversations in which they try to explain the extraordinary circumstances under which plagiarism has been committed. These authors often appear personally, trying to explain and justify something that has already been materialized, that is to say absolutely undeniably. This means that they did not realize the significance of the offense. Perpetrators of plagiarism have to justify themselves in front of entire professional and scientific community and not only in front of individuals – people from the editorial board as it is often the only job they earn a life. They live from the reputation of the journals that are blatantly attacked by perpetrators of plagiarism.

Pressure may also be made indirectly – through other people. All similar situations should be avoided – if possible. But, sometimes, it seems – it is not possible.

Detected plagiarism is unambiguous if it is supported by the facts. For this purpose, various guide books are designed, in order to detect plagiarism. Plagiarism can be:

a. Crude, obvious, so-called “blatant”, when information from one’s article is copied and transmitted without using quotation marks and without giving the original reference work; then similar, less harsh transmission from one’s article (from the original notes of one’s text, for example). It seems that often done unconsciously, and thus, the perpetrator is often surprised when plagiarism is detected. All this and some other things, are double dipping;

b. Plagiarism also may occur due to failure in presenting one’s article or not understanding one’s text. It also includes paraphrasing, which officially requires to be approved and the cases in which perpetrators of plagiarism “forget” to put quotation marks or references.

Much has been written about various subdivisions and ways to implement plagiarism, from the so-called “patchwork plagiarism” (downloading different parts from several texts and creating a new paper), then salari factor (fragmenting one paper in order to make several ones), etc.

Unfortunately, it is often found in the biomedical literature.

Plagiarism detection in the Vojnosanitetski pregled

The Vojnosanitetski pregled (VSP) is a military medical and pharmaceutical journal of Serbia. The VSP is indexed in major international biomedical databases in scientific publishing including Medline and Science Citation Index Expanded (SCIE). According to the value of its impact factor, since 2010 the VSP has been included among 153 the most influential journals worldwide in the field of general and internal medicine. Editorial staff of the Journal is located at the Institute for Scientific Information, Military Medical Academy, Belgrade, Serbia. From January 1, 2012 the editorial staff of the VSP use CrossCheck Service and its iThenticate software in order to detect plagiarism in manuscripts submitted to the Journal.

How plagiarism detection in manuscripts submitted to the VSP is conducted

1. After checking the document using a word-processing software, an expert from editorial board controls a total percentage of duplicated (overlapping) text in the manuscript and each of the references the copied material has been taken from. Full access to duplicate text marked by a software is possible, whether in the submitted manuscript, or in facing

the references the text has been copied (duplicated) from. This is the first phase, in which the software has an important role. Then, it is necessary to check it by analyzing the submitted text and comparing it with the original text.

2. In the second phase it is necessary to determine to which parts of the copied text plagiarism is referred to, because detected plagiarism in the part of the text related to the results of a research and the one detected in those parts (such as introduction or discussion, for example) do not have the same significance. Still, sometimes, it is possible the author is not aware that article has been plagiarized. The text is analyzed thoroughly and slowly in order to understand its essence.

3. Furthermore, there is a part of editorial board work that refers to originality the idea of the author’s work. It is the most important part. It is the biggest mistake if plagiarism has been done in this part, and, that is to say, it is the professional sin.

4. In the next stage, it is necessary to search through some browser available material of previously published articles of that author. In this way, it is possible to determine whether there are signs of the so-called self-plagiarism – copying their own articles. It is possible to do that searching for similar titles, keywords, data, phrases, work style, or by the same team of authors (but with an altered order), etc.

5. The conclusion and explanation about possible committed plagiarism are sent by e-mail to the first author of the article and to all of the co-authors. Everything considered relevant must be noted in conclusion. If there is no plagiarism detected, it must be noted, too. If plagiarism is detected to a slight degree, the authors are recommend to make corrections in order to change text. Authors are required to paraphrase the text by introducing required corrections, to write references not quoted in the first version and after having taking some parts of the text of other work and the article corrected in this way must be submitted again. Sometimes, editors suggest reviewers to take into account aspects of article that has been observed as the suspected plagiarism. In the case of gross plagiarism authors are informed about the decision that the article has to be retained (not to be published), together with the conclusion of the analysis conducted.

6. Finally – in a flagrant case of plagiarism - implement measures of such cases are undertaken: contact the author (author has to be informed in the first place), and then in-a crude plagiarism, and to the authors of 62 (40.5%) of manuscripts were suggested minor revisions in terms of paraphrasing text – 14 (9.1%) manuscripts, and to incorporate references that not previously listed – 48 (31.4%) manuscripts. Suggestions on suspected plagiarism were sent to reviewers in two (1.3%) cases, whereas the authors of four manuscripts were required their major revisions due to high percentage of overlapping text with previously published articles and their resubmitting after corrections performed. Totally 80 (52.28%) manuscripts did not need any corrections regarding potential plagiarism.

7. At the same time, all material on resolution regarding potential plagiarism in the articles, which has been sent to authors must be kept in editorial board ownership.

The results of checking for plagiarism in the Vojnosanitetski pregled in the period January 1 – June 30, 2012

In the period from January 1, to June 30, 2012 a total number of 153 manuscripts submitted for publication to the VSP was reviewed and analyzed on plagiarism at the Institute for Scientific Information with the prior software checking (Table 1). Five (3.3%) manuscripts were rejected as

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<tr>
<th>Outcome of plagiarism detection</th>
<th>Manuscripts n (%)</th>
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<tr>
<td>Rejecting</td>
<td>5 (3.3)</td>
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<tr>
<td>Major revision with review repeating</td>
<td>4 (2.6)</td>
</tr>
<tr>
<td>To reviewers for additional analysis</td>
<td>2 (1.3)</td>
</tr>
<tr>
<td>Suggestions to authors</td>
<td></td>
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<tr>
<td>to paraphrase text</td>
<td>14 (9.1)</td>
</tr>
<tr>
<td>to incorporate corresponding references</td>
<td>48 (31.4)</td>
</tr>
<tr>
<td>Without suggestions</td>
<td>80 (52.3)</td>
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<tr>
<td>Total</td>
<td>153 (100.0)</td>
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</table>

Table 1

Plagiarism detection in manuscripts submitted for publication in the Vojnosanitetski pregled (VSP) during the previous six-month period (January 1, 2012 – June 30, 2012)

Plagiarism detection in biomedicine is very hard. It must be done by a well-trained team and by using a high quality technology. In the VSP this has recently been started using the software, but thoroughly as before, in order to maintain the long tradition of providing high quality of the journal. The main goal is the benefit and satisfaction of a wide range of our customers.

The extent and types of plagiarism in submitted articles have not been considered as alarming so far, but require additional effort to eradicate it.

Avoiding and preventing accidental plagiarism require a high level of education and plays a crucial role, particularly in the training of young researchers, who are the backbone of future biomedical and scientific expertise, and, thus, for publishing activities, too.
REFERENCES