Ethics in scholarly publishing: The journal editor's role

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Abstract

It seems that some characteristics of today's world, such as competitiveness and the constant pressure to evolve professionally may in a sense force scientists to "massively produce" publications, disregarding quality and in some cases the ethics of writing and publishing. Unethical practices such as plagiarism, fabrication, falsification, extensive multiple publication of the same data, repackage of the same data etc. lead to scientific misconduct. Any type of unethical behaviour might impede scientific advancement and result in poor quality publications. Scholarly writing ethics are inextricably linked to publication quality. Editors are constantly expected to deal with scientific misconduct so as to preserve scholarly integrity and the reputation of the publishing house. Despite the progress marked during the past decade in addressing scientific misconduct through the creation of organisations, common policies, guidelines and the relevant software tools the issue still remains unsolved. In order to address unethical scientific practices there is an imperative need to properly educate writers, editors, reviewers and other scientists on the ethical issues involved in publishing.

Keywords: scholarly publishing, scholarly journal, ethics, scientific misconduct, editor

1. Introduction

The significant increase in published information, both in digital and printed form, entails many risks and challenges that publishing houses should identify and deal with, in order to preserve their scholarly integrity and gain the trust and satisfaction of their reading audience. The publishing industry is extremely important for the diffusion of research and knowledge. Through their publications, scientists disseminate their work and are being evaluated by the scientific community and the general public [1]. Publishing enables the circulation of ideas, promotes scientific dialogue and supports educational practices.

During the past two decades there has been a significant increase in the number of peer-reviewed and open access scholarly journals, newsletters and internet resources

in almost every scientific field. A publishing house may comprise hundreds of journal titles diffused mainly electronically. Especially in rapidly growing fields, such as informatics and ICTs, scholarly journals are considered to be an ideal way to publish papers and studies as compared to books [2]. The rapid increase in scholarly publications and their direct dissemination with the use of new technologies has many advantages but also put forward the issue of publication quality. Competitiveness, research underfunding and the need to create a reputation and evolve professionally urge scholars to constantly pursue publication in scholarly journals, opting for quantity instead of quality in some cases [1], disregarding the ethics of scholarly writing and publishing as a result.

This paper focuses on the journal editors who are expected to deal with this issue and make crucial decisions on publications and journal contents. Among other responsibilities they are expected to evaluate the quality of the material submitted for publication and therefore investigate the author's ethics in order to ensure the quality and accuracy of the publication [3].

2. Ethics in scholarly publishing: scientific misconduct

Ethics, as a philosophy branch, is dealing with a series of issues that have been of concern to humankind since the antiquity. Publishing ethics seem to have several philosophical and practical implications as well, depending on the field of each scholarly journal. For instance, medical journals face different issues as compared to technology journals or history journals etc. This bibliographical research will be focusing on an ethics issue that concerns scholarly publishing as a whole regardless of the different scientific fields: the issue of scientific misconduct.

"Misconduct in science" or "scientific misconduct" (the older term "scientific fraud" is no longer in use due to a shift in the meaning of the word "fraud") is a technical, semi-legal term designating behaviours that justify federal intervention, and its precise definition is a matter of crucial importance [4]. Misconduct in scientific research is actually a deliberate significant misbehaviour on the part of the scientist that impedes research progress or falsifies scientific data and compromises the integrity of science. More specifically:

> "Misconduct in science means fabrication, falsification, plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting or reporting research. It does not include honest error or honest differences in interpretation" [5].

Although scientific misconduct has different meanings in different countries, in the definition provided above one can discern some fundamental aspects of the term, such as *fabrication*, i.e. the presentation and publication of a research or an experiment that have never been conducted or *falsification*, used to designate a deliberate data distortion or an omission of information and finally *plagiarism*, used

to describe the appropriation and presentation of the ideas of others without mentioning their names. The practice of *self-plagiarism* is also very common and occurs when authors reuse in their recent work data that have already been presented in their pervious publications [6].

Nevertheless, these are not the only types of unethical behaviour that authors tend to adopt according to the literature [7]. *Duplicate publication* (also known as redundant publication) is also a common type of scientific misconduct that consists in over-publishing the same work or a slightly revised version of it in more than one journal, book or webpage. This behaviour is unethical in the sense that the author constantly reproduces the same content without providing the readers with any new knowledge. Publishing houses have adopted the common policy of the single submission, which actually means that a manuscript should be submitted to one journal at a time so as to avoid parallel publication. After the author receives a written rejection he can resubmit the manuscript to another journal. The lingering unanswered question is how many publications can be related to only one research project [6].

Another form of unethical behaviour is related to the authorship issues that mainly arise when a manuscript has multiple authors. According to the International Society of Addiction Journal Editors "The authorship of a scientific report refers to the origin of a literary production, not just to the experimentation, data collection or other work that led up to it. All persons named as authors should 1) have made a major contribution to the work reported, and 2) be prepared to take public responsibility for its contents" [7]. However, in many cases it is rather difficult to define the exact extent of a "major contribution" especially when the publication is part of a larger group project. The practices of *ghost authorship*, that is, omitting the name of an author who has participated in the research and *guest authorship*, i.e. adding author names that did not contribute to the research mainly because of their reputation, are quite common [8].

Throughout the literature, scientific misconduct is also believed to stem from a potential conflict of interest, either intellectual or financial. An intellectual conflict of interest occurs in cases where the content of a manuscript contradicts general knowledge. Authors site their sources in order to support their work. However, some of their references might be inaccurate or unable to support their hypotheses. A financial conflict of interest occurs when the author receives funding from a corporate sponsor (e.g. a pharmaceutical company) [7]. In this case it is considered unethical to promote a specific product or present only the positive results of the research to the corporate sponsor [6].

Furthermore, a research might be suspected for misconduct when it is extremely good and when its methodology is not presented or there are problems in its methodology (e.g. insufficient sample size) or data analysis. Even though the majority of such manuscripts are being rejected [9] in some cases the solution to the problem is not that simple and the editor is called to actually deal with scientific misconduct.

2. The editor's role

Publishing is a rather complicated procedure due to the number of different professionals that take part in it [10]. The role of the editor is extremely important in this process, since it is directly related to the quality of the publication especially in scholarly publishing [11, 12]. What is more, editors are required to work with authors, reviewers and the publisher, coordinate and maintain the balance among all the professionals that participate in the process [13]. Journal editors have increased responsibilities as they are responsible for the journal's content so as to preserve the reputation and status of the publishing house and satisfy the requirements of the reading audience. At the same time, editors are expected to deal with unethical behaviour on the part of researchers and scientists and want assurance that the information and knowledge provided are accurate and trustworthy [6].

It was only during the 1980s when the issue of unethical practices in journal publishing came to the fore especially in the field of medical publishing and discussions on the creation of a code of ethics that would determine the obligations of the authors towards their readers and other authors became more frequent [14]. During the same decade the issue of the ethical responsibilities of editors and the creation of explicit guidelines for authors, editors, and reviewers started to gain importance [15]. After all, scholarly journals have increased responsibilities towards their field and their reading audience and should develop writing and editing policies. In 1978 a group of medical journal editors met informally in Vancouver, British Columbia, in order to establish guidelines on the format of the manuscripts submitted to their journals. This group became known as the Vancouver Group. It expanded and evolved into the International Committee of Medical Journal Editors (ICMJE), an organisation that still provides guidelines to medical journal editors [16]. Since that time, several international associations and organisations were established and attempted to determine the responsibilities and competencies of the editors in order to help them deal with unethical behaviour. Some of these associations are mentioned in the following paragraphs.

The World Association of Medical Editors (WAME) established in 1995, is a non-profit voluntary association of peer-reviewed medical journal editors from countries throughout the world who seek to foster international cooperation and promote the education and training of medical journal editors. The WAME has 1664 members representing more than 980 journals from 92 countries [17].

The International Society of Addiction Journal Editors (ISAJE) is the first society for addiction journal editors and was formally constituted in 2001 as a non-profit organization. The ISAJE holds major meetings every year providing an opportunity to discuss and share problems. The Society addresses the needs of journal editors, their staff, authors and reviewers and provides support and guidance. It also organises training seminars and offers guidance on ethical regulations and publication standards through online and printed material. The association especially supports journals published in the developing world and in languages other than English [18].

The Council of Biology Editors (CBE) was renamed into the Council of Science Editors in 2000 due to the integration of members from other scientific fields and has more than 1,200 members. The CSE's main mission is to serve editorial professionals in the sciences by creating a supportive network for career development, providing educational opportunities and developing resources for identifying and implementing high-quality editorial practices [19].

The Committee on Publication Ethics (COPE) was established in 1997 by a group of medical journal editors in the UK but it now has over 6,000 members worldwide from all academic fields. Membership is open to academic journal editors and every one else interested in publication ethics. Several major publishers have signed up their journals as COPE members [20].

All editor associations agree on the role and the responsibilities of journal editors. Journal publishers and editors are equally responsible for the publication of an accurate and trustworthy journal but hold different roles. Publishers have the right to hire and dismiss editors and make important commercial decisions that require an active participation on the part of the editor. The ICMJE notes that editors should have full responsibility in determining the editorial content of a journal. The notion of editorial freedom should be resolutely defended by editors, even when putting their positions at stake.

The initial role of editors is to check whether a submitted manuscript is appropriate for the journal, that is, whether it falls within the journal's scope of interest. The decision to publish a manuscript is closely related to some of its characteristics (importance of the topic, originality, scientific strength, clarity and completeness of written expression). Then, editors choose some expert reviewers (i.e. referees) who will evaluate the submitted manuscript and are in direct communication with the author and the review team in order to achieve an effective and smooth cooperation [16]. Editors are the first people to see the manuscripts and conduct an initial screening in order to decide on their course.

The WAME urges editors to consider whether certain researches are ethical and whether their publication could harm the readers or the public interest. Furthermore, it states that editorial decisions should not be influenced by the nationality, ethnicity, political beliefs, race or religion of the author. Editors should also encourage reviewers to conduct detailed screenings on the manuscript's originality and any type of potential scientific misconduct [21]. Finally they should check the efficiency and quality of the reviewers and examine cases of suspected reviewer misconduct.

The responsibilities of editors, as presented by the WAME, demand that they should respect readers, authors and reviewers and disclose all journal procedures (e.g., governance, editorial staff members, number of reviewers, review times, acceptance rate). They should also promote self-correction in science and attempt to improve scientific research practices through the publication of their corrections, retractions and reviews of published papers. Editors should confirm the honesty and integrity of the journal content and minimize any type of bias through managing conflict of interests and maintaining information confidentiality. Finally, they are required to

improve the journal's quality through their involvement in editing, peer review, research ethics, methods of investigation and the rationale and evidence base that supports them, establishing the adequate efficiency evaluation projects and pursuing external efficiency evaluations [3].

3. Dealing with scientific misconduct

Over the past decade, a number of peer reviewed academic journals have adopted a common policy on ethics. The webpages of several publishing houses contain writing guidelines for authors and define the responsibilities and competencies of editors and reviewers. In late 2006 the Blackwell Best Practice Guidelines on Publication Ethics were made public, promoted and followed by all Wiley-Blackwell journals; the guidelines are available at the Wiley-Blackwell webpage [22]. Common rules and guidelines are also available at the webpages of several international editor associations.

Having the largest number of members, the COPE is the most widely acknowledged organisation that provides guidelines to authors, editors and reviewers on issues of ethics. In its webpage it provides significant information on dealing with scientific misconduct and offers several other services such as newsletters, blogs, annual reports etc. In addition, all scientific misconduct cases and guidelines that have been discussed since 1997 up to date have been gathered in a database with a search engine. At the moment, this database contains more than 400 cases along with the advice provided by COPE for each case. For more recent cases of misconduct the database contains additional information on their course and outcome.

Furthermore, the COPE has designed flowcharts to help editors follow a certain Code of Ethics and put guidelines into practice in order to investigate cases of suspected misconduct. These flowcharts provide information on every type of scientific misconduct, such as plagiarism, duplicate publication, suspected guest, ghost or gift authorship etc. Publishers and authors have been extremely positive towards these flowcharts and encourage their use [23].

Apart from the guidelines provided by publishing houses and associations, editors can also take recourse to an international project named CrossCheck, a very effective tool for detecting plagiarism. CrossCheck powered by iThenticate, is a plagiarism screening service designed to help publishers verify the originality of the content submitted to them for publication. It allows publishers to ascertain the originality of the submitted manuscripts and helps them identify cases of misconduct. Participating publishers analyse submitted manuscripts with iThenticate software, which checks submissions against millions of published research papers (the CrossCheck database), documents on the web and other relevant sources. Manuscripts with overlapping text are flagged to editors, who are able to further compare the documents in order to establish the reason for the matches [24].

During this process, the manuscript that has been submitted for publication is automatically compared to millions of other papers in the data base, providing the

user with a percentage of similarity. Thus, it is easier to investigate and deal with certain issues such as plagiarism and self-plagiarism or even duplicate publication in cases where there is a very high percentage of similarity with another paper of the same author [25, 26]. Numerous publishing houses are already taking part in the CrossCheck project, such as Elsevier that has offered 9 million papers to the database [27]. Some of the project's reported negative aspects include limited access, system slowness, and staff time [28].

4. Conclusions

A simple inquiry with an internet search engine reveals that despite the steps taken so far editors and by extension publishing houses are not able to fully address the issue of scientific misconduct. Nowadays, there is a rich literature providing advice and general guidelines to authors and editors so as to foster ethical scholarly writing and publishing. However, according to research, a high percentage of journal editors internationally are not aware of the existence of these rules and guidelines or do not follow them [29]. Only a few researches and empirical studies have been conducted in order to estimate the percentage of unethical publications or investigate the behaviour of editors towards scientific misconduct. Identifying the publishing houses, editors and authors that continuously publish unethical papers and examining potential sanctions might help raise awareness within the academic and publishing community.

The entire academic and research community should maintain high standards in scientific research so as to preserve the integrity of science. Scientific work should be conducted responsibly and ethically. In a scholarly setting, knowledge should be produced by scientists who respect the intrinsic value of scientific knowledge and gain satisfaction from the quality of their research. Scholars are expected to contribute to the development, evolution, progress and dissemination of knowledge but at the same time they should also seek personal evolution and adopt moral values and practices. True scientists should not attempt to deceive others or themselves, mainly due to the fact that science is a moral phenomenon [1]. Thus, scientists should be primarily trained in understanding the nature and the meaning of science. Only ethical research and writing can lead to ethical publishing.

Apart form the unethical behaviour on the part of authors, journal editors are frequently confronted with editorial misconduct, a recent issue that has not yet been extensively researched [30, 31]. As a matter of fact, editorial misconduct is a rather hazardous behaviour that could compromise the integrity of science. Editorial misconduct could be defined as any type of bias (racial, national, religious) that could hinder the approval of a submitted manuscript. Confirmatory bias is a common type of misconduct where editors (or reviewers) decide on whether they are going to accept a manuscript based on the research results. As shown by William Epstein, a research with positive results has more chances to get published [13]. Consequently, all the existing associations that provide support and advice to editors should also monitor and control their behaviour [29].

Journal publications are expected to spread ideas, recognize and diffuse scholarly research. Publishing unethical work may lead to the dissemination of misleading and harmful information. In that respect, editors and publishers should re-examine their role and responsibilities towards scholarly publishing and the scientific community. There is an increasing need to raise awareness on the problems deriving from scientific misconduct in scholarly publishing. Furthermore, editors and reviewers should be supervised within the frames of editorial freedom, so as to eliminate any form of misconduct. Within today's constant increase in electronic information sources, peer-reviewed journals should offer high quality publications and provide the scientific community only with trustworthy and ethical researches.

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