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Academic Integrity: Author-Related and Journal-Related Issues

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ABSTRACT

Introduction: Author-related and journal-related metrics have long been the target for manipulations on part of some researchers, journals, and occasionally countries, eager to rank higher or get other benefits. Games played with metrics are abundant and may be triggered by rigid "publish-or-perish" national or university policies and consequent pursuit for benefits. In addition, new technologies make headway to unprecedented schemes in research production and promotion. The JLE Editors aim to inform JLE readers of their stance on the current revision of the JLE ethical guidelines for authors, editors, and reviewers in response to the new challenges.

Basic Concepts Related to Academic Integrity: The key concepts related to academic integrity are commented on, including some particulars about academic integrity, plagiarism, academic misconduct, fabrication and falsification of data, peer review manipulations, citation manipulations, and predatory journals.

Revisions in the JLE Editorial Policy on Authorship: With the ChatGPT entering the realm of science, the technology caused a heated debate over the ethical aspects of Artificial Intellect (AI) generated submissions to scholarly journals. The JLE editors share a rather popular stance that submissions cannot be subject to ChatGPT generation or revision.

Conclusion: The JLE has been revising its ethical guidelines as of authorship, including the limits for ChatGPT uses in submissions. The JLE editors apprise all stakeholders of the revised guidelines that cover the use of generative pre-trained transformers in submission generation.

KEYWORDS

academic integrity, academic misconduct, fabrication, falsification, peer review manipulation, citation cartel, self-citation, citation stacking, predatory journals

INTRODUCTION

Many metrics like journal impact factors in the Web of Science, Cite-Score and H-index in the Scopus database, author's citations, and personal H-index quite often tend to be gamed in the contexts of some authors, institutions, and even countries. It appears to be reasonable as such metrics at large are widely supposed "the dominant currency of intellectual recognition in academia" (Teixeira da Silva, 2021). The situation was aggravated when the new dimensions of science had been introduced by the early 2000s in the countries that are defined as the "core" of science. Being the core, those countries, including the USA, EU, and others, set dominant culturally based discursive paradigms in world science (Larson, 2013). De-bordering

of research throughout the world from the late 2000s on resulted in implicating researchers and universities from the so-called semi-periphery and periphery of science (Larson, 2013) in these new games for excellence in science and technologies. Thus, research integrity has spread to become a truly international issue. At present, misconducts relating to research are a mixture of unethical practices, following both international and national patterns. A spurt in research misconducts can be attributed to deeper and wider internalisation of science via relevant policies.

Country-related issues of research misconduct appear when a rigid research policy is pursued, based essentially on metrics. "One can reasonably argue that publications in WoS/ Scopus largely pre-

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determine university prosperity" (Lambovska, & Todorova, 2023). Aimed entirely at the quantity of publications in international journals, the affected countries are often found themselves with an avalanche of national publications in predatory or other low-quality journals, though temporarily indexed in Scopus and other major international journal databases. Their research is mainly imitating the top high-quality publications from the US and Europe¹. But countries may be switching from pursuing quantity to quality of research. One of the often-cited examples of such a switch is China, with changing its position as a second large contributor to research in the world to become the front runner in 2019 with "a greater percentage of the most influential papers" in contrast to numerous publications of much lower quality before 2019.

Internalisation of research spurred by internalisation of higher education worldwide in addition to the "publish-or-perish" academic culture of the 21st century brought into being sophisticated unethical behaviours and schemes.

In our editorial review, we aim to address the most essential misconduct practices, including the emerging ethical challenges related to artificial intelligence participation in research, writing a scholarly publication, peer review, and editing in journals, with a view to revising the JLE ethical guidelines for all stakeholders.

BASIC CONCEPTS RELATED TO ACADEMIC INTEGRITY

Academic Integrity

Academic integrity is the commitments to ethical principles in academic activities. It is also defined as "the values, behaviour and conduct of academics in all aspects of their practice" (Macfarlane et al., 2014). It is closely connected with many other concepts, often negative in their meaning. Academic integrity is often explained via its antonyms or negative concepts, including academic misconduct, unethical behaviour, academic dishonesty, and even plagiarism, and data manipulation. Some authors note that the most cited publications on academic integrity have "three times more likely "academic dishonesty" included in their titles than "academic integrity" (Lancaster, 2021).

Research on academic integrity began as early as the 1900s. A new wave of interest in academic integrity came in the early 2000s and later when open access models of scholarly publishing led to the emerging black market of predatory journals and massive cases of academic misconduct. So far, most publications on academic integrity have been interdisciplinary, covering various aspects of academic ethics, science and research, scholarly communication, law, education, social patterns of behaviour, psychology, etc.

Plagiarism

The analysis of the definitions made by M.F. Abad-Garcia (2019) shows that most definitions share a general idea of plagiarism as unethical or unattributed borrowing of ideas or text and presenting them as "new and original" (Abad-Garcia, 2019). The Committee on Publication Ethics (COPE) defines plagiarism as "unreferenced use of others' published and unpublished ideas"³.

Academic Misconduct

Academic misconduct is considered within the scope of unethical behaviour in the academia and linked to various unethical practices. In this publication, we are focusing only on academic misconduct related to research. In their Guidelines on Good Publication Practice, the Committee on Publication Ethics (COPE) dwells upon the features of good research. They should be "well planned, appropriately designed, and ethically approved"⁴. Lower standards of research may imply an academic misconduct. Some researchers explain academic misconduct via its associations with the dark triad (psychopathy, narcissism, and Machiavellianism) and antisocial behaviour of a person (Ternes et al., 2019).

The more pressures researchers face, the more frequent cases involving academic misconduct are. With a rise in numbers of PhD students worldwide, academic and research misconduct occur more often. PhD students may have unclear or distorted perceptions of ethics and research process and may choose practices that are unacceptable in the academia. PhD students are often influenced by "culturally specific issues" and "problems of knowledge and understanding transfer" (Mitchell, & Carroll, 2008). In addition, journals often tend towards discriminatory policy in relation to young researchers, thus, "forcing them to use inappropriate authorship models" (Gureyev, & Mazov, 2022).

Schalit, N. (2023). China now publishes more high-quality science than any other nation – should the US be worried? The Conversation, Jan 10, 2023. https://theconversation.com/china-now-publishes-more-high-quality-science-than-any-other-nation-should-the-us-be-worried-192080

² Ibid.

³ Committee on Publication Ethics (COPE). Guidelines on good publication practice. URL: https://farname-inc.com/post-2/f53d32c/Committee-on-Publication-Ethics-COPE-GUIDELINES-ON-GOOD-PUBLICATION-PRACTICE (accessed November 15, 2023).

⁴ Ibid.

To understand the ways research misconduct related to journal publications occur, it may be reasonable to analyse the grounds for retractions in journals. To some extent, retractions prove increased responsibility of a journal. In fact, they are the cases based on found errors or academic misconduct in various forms. But simultaneously, retractions establish the cases of misconduct as the analysis of the retraction grounds proves. The Bone & Joint Research Journal ascertained the major reasons for retractions from 1995 to 2015. They included "fraudulent data, plagiarism, duplicate publication, and data errors" (Yan et al., 2016, P.265). Other researchers outlined more reasons, including also author-related (i.e. false authorship or attributed authorship, guest and gift authorship, author disputes, manipulations with adding or excluding authors stated in the byline), data-related (both falsification and fabrication of data), results-related and investigation-related (erroneous methods or interpretation of results), review-related (fake or superficial peer review), and ethical grounds (AlRyalat et al., 2020). But plagiarism and duplicated publications are stated as the most frequent reason almost in every research on retractions in journals. Retractions may occasionally take many months or even years to be made. At present, the average period from publication to retraction is about 24 months in the study by AlRyalat et al. (AlRyalat et al., 2020) that is consistent with other studies (Moylan, & Kowalczuk, 2016). The longer periods may also be caused by analysing journals' deeper archives.

When the focus is placed on research, academic misconduct may be particularized as "research misconduct". Both terms are rather close in meaning, with "academic misconduct" perceived as an umbrella term.

Fabrication of Data and Falsification of Data

Fabrication of Data and Falsification of Data have one basic trait in common. They are made for the purpose of deception. Any intentional alteration of research data, materials, results, or other essential components of research produced to meet an exact objective, or a particular result are defined as a falsification of data. If research data are made up or created by a researcher, and they never exist, they are treated as fabrication of data.

Peer Review Manipulations

Peer review is the core of scholarly publishing. It serves as a mechanism of public and academic control over the quality of submissions to scholarly journals. Mitigating manipulation in peer review may be reached via avoiding practices when an author suggests reviewers, randomized choice of reviewers, introducing open peer review, "unfettered access

of the public and scientists to a published work for critical analysis" after publication (Teixeira da Silva, 2013), etc.

Citation Manipulations

Science publishing is "a very biased process by virtue of the biased nature of humans" (Teixeira da Silva, 2017). Any stakeholder may be inclined to a bias. "Publish or Perish" academic culture of the 21st century forces researchers not only into promoting their publications to established and top quartile journals, but also into getting citations for their articles. Citations validate any research, enhance its credibility and visibility, and promote both an article and its author.

Researchers are cited unevenly. There are numerous factors resulting in more citations. First, the Mathew effect of accumulated advantage applied to economic and social success may be transferred to citations. Greater social capital of a researcher in translated into more citations as compared with another researcher without numerous connections (Perc, 2014). Second, citation-worthy articles have more or less similar features, including the topic prominence of an article with an eye-catching title, article originality, rigorous methodology, a clear and sophisticated design, relevant, comprehensive and up-to-date literature. But citations are not only about the quality of publications. They may be induced by an unusual set of circumstances or even framed up on an author's part. The latter embraces various manipulations with citations. Citation manipulations, including negotiated and honorary citations, are part of schemes of unethical behaviour caused by citation chasing or stacking.

Citation stacking entails practices in which authors or journal editors are teamed up to increase the citation of their articles by disproportionately citing articles of cartel members more than other relevant articles⁵. Citations cartel implies "a group of authors that cite each other disproportionately more than they do other groups of authors that work on the same subject" (Fister et al., 2016).

Analyses of accounts of authors in international databases as well as citation networks give an idea of relationships among groups of authors. They may help in detecting citation manipulations. Citations are not the only target of manipulations. Other metrics like H-index of an author, as well as of a journal, or a research institution together with journal impact factor are also often gamed with.

Predatory Journals

In the early 2000-s, a new type of journals came into being, taking advantage of open access schemes. They became soon ubiquitous. They launched aggressive marketing in response to "publish or perish" trend in the academia. Jour-

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⁵ Enago Academy. Citation Cartels: The Mafia of Scientific Publishing, Dec 26, 2022. https://www.enago.com/academy/citation-cartels-the-mafia-of-scientific-publishing/

nals masquerading as peer reviewed and falsely advanced to be indexed in Scopus and other esteemed databases. Consequently, they make breath-taking profits by selling researchers an unethical possibility to get their papers published avoiding real peer review and other publicly important filters for research. They became omnivorous, publishing anything irrespective of quality and scientific value (Abad-García, 2019). Such journals do not tend to uphold the scholarly ethics standards. Predatory journals are defined as "entities that prioritize their interests over scholarly values" (Marar et al., 2023). They are "fraudulent publications characterized by aggressive marketing solicitations and deviation from best publishing practices" (Leducq et al., 2023). They "report false or deceptive information, depart from established editorial and publication norms, lack transparency" (Marar et al., 2023). Unfortunately, open access with all its great contribution to Open Science pays dearly for its openness.

Ethical standards have been constantly revised to combat dubious practices of new participants on the growing market of scientific publications. In 2015, the number of predatory journals hit 11,800, whereas it exceeded 15,000 journals in 2021⁶, nearly equalling the number of decent scientific journals. The number of publishers involved in predatory publishing worldwide amounted to 1,000⁷. As a result, public trust in science has been seriously undermined.

Revisions in the JLE Editorial Policy on Authorship

Ethical perceptions of authorship are going through a deep and comprehensive rethinking, with ChatGPT and AI-generated text technologies spreading fast. The texts they produce may be of any genre and conform to numerous parameters. As ChatGPT is based on large language models, a text it generates may comply with any assigned criteria both by content or genre and style.

Though ChatGPT output is not guaranteed against errors that the original data may contain, or errors occurred due to misunderstanding of users' queries on part of AI. The latter is caused by users' inaccurate or vague queries or by AI's failures to analyse implications and overtones in users' queries.

However, ChatGPT 4.0 by Open AI has been showing great results in "passing" medical examinations with flying colours and in diagnosing complex cases in medicine (Ho, Koussayer, & Sujka, 2023). The technology proves that it may be successful in many other assignments. In early 2023, several articles were published, with ChatGPT as a co-author

of research. These occurrences triggered a serious debate over ethical aspects of ChatGPT authorship and limitations to the technology appliance in tests and examinations (Tollefson, 2023; Tang, 2023; Illia, Colleoni, & Zyglidopoulos, 2023; Okaibedi, 2023).

In our previous editorial (Tikhonova, & Raitskaya, 2023), we elaborated the pros and cons of the debate over ChatGPT use limitations. Its major result so far is defining authorship through authors' responsibility for the generated text or any other copyrighted object. AI cannot be held responsible for generated texts as an author. On the same ground, AI cannot be considered an author.

Next, no less important is the issue of AI appliances at other stages of research. AI-based assistants like Grammarly, Hemingway Editor, Jasper AI, etc. essentially improve texts of research submissions, but they do not generate text the way ChatGPT does. Thus, all the focus of our doubts is placed on text-generated AI technologies.

The JLE editorial board and team stick to the point that ChatGPT can be used mainly within some specific parts of research limited to information extraction or other similar stages of research. Submissions cannot be subject to ChatGPT generation or revision.

On its part, JLE shall not apply ChatGPT or similar large language models in editing or peer review as we treat all submissions to our journal as strictly confidential objects of copyright law.

CONCLUSION

Academic integrity and rigid ethical practices remain the backbone of production and dissemination of research. Practices of academic misconduct require a comprehensive and immediate responses, including desk rejections of submissions if any misconduct is detected, rigid editorial policies towards identified falsifications and fabrications of data, retractions of all publications if academic misconduct is found, hard-line attitude towards cases of plagiarism and AI-generated content in submissions.

JLE is constantly following the worldwide debate on the limitations and ethical considerations relating to ChatGPT and similar technologies to update its editorial policy and ethical standards. With new ChatGPT detection technologies or changing attitudes in the academia, we do not hesitate to introduce further changes in the JLE stance.

Freedman, E., & Kurambayev, B. (2023). Rising number of "predatory" academic journals undermines research and public trust in scholarship. Phil's Stock World. Sept. 19, 2023. https://www.philstockworld.com/2023/09/19/rising-number-of-predatory-academic-journals-undermines-research-and-public-trust-in-scholarship/

⁷ Ibid.

Thus, the JLE adds the following to the guidelines for authors, editors, and reviewers:

JLE Guidelines on the use of AI in submissions and other copyrighted objects

Authors shall follow the best academic practices that imply an author's responsibility for his or her submission as a whole. No part of the submission can be authored by any AI technologies, including ChatGPT or any other similar large language models. When applying to the JLE, every author is to state that the submitted text and other copyrighted objects included into a submission are not subject to AI production. At the same time, authors are free to use AI-based apps, including Grammarly, DeepL, Hemingway Editor, etc.

At any stage of the publishing process, JLE Editors shall never expose submissions to the JLE to generative pre-trained transformers as the scholarly information contained in submissions may go public, thus infringing their authors' rights.

As any submission is treated as a confidential document, Peer Reviewers have no right to process the submitted manuscripts with ChatGPT. Reviewers' reports are not subject to AI-based text generation.

AUTHORS' CONTRIBUTION

Lilia Raitskaya: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Software, Validation, Visualization, Writing – original draft, Writing – review & editing, other contribution.

Elena Tikhonova: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Software, Validation, Visualization, Writing – original draft, Writing – review & editing, other contribution.

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