

ACADEMIC INTEGRITY BETWEEN THE “PUBLISH OR PERISH” PRESSURE AND SCIENTIFIC RIGOR: AN ANALYSIS OF MISCONDUCT PREVENTION MECHANISMS

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RESEARCH ARTICLE

Abstract: *The increasing pressure on researchers to publish continuously has significantly transformed the dynamics of the academic environment. Between the imperatives of visibility and quantitative evaluation, on the one hand, and the ethical requirements of research, on the other, a tension emerges that may influence professional behavior. This paper examines how the “publish or perish” pressure contributes to the emergence of questionable practices, such as inappropriate content reuse, selective reporting of results, or data distortion.*

Keywords: academic, publication, academic integrity

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INTRODUCTION

In recent decades, the academic environment has undergone significant transformations driven by the internationalization of research, increasing competition for funding, and the growing emphasis on quantitative performance indicators. In this context, scientific activity is no longer assessed exclusively through its intellectual contribution or the social impact of its results, but also through measurable criteria such as the number of publications, the Hirsch index (h-index), journal impact factor, or citation frequency. This evaluation model has consolidated the phenomenon known as “publish or perish,” which describes the constant pressure exerted on researchers to publish at a sustained pace in order to maintain their academic positions, access funding opportunities, and ensure professional relevance[1].

Although this dynamic has contributed to increased scientific productivity and accelerated knowledge dissemination, it has also generated significant side effects on academic integrity. In many cases, performance pressure may transform research from a process oriented toward discovery and rigor into a mechanism driven by competition and institutional compliance. In such a climate, ethical standards risk being perceived as

administrative obstacles, and their observance may become subordinated to the need for rapid and publishable results.

Academic integrity represents one of the fundamental principles of scientific research and implies adherence to values such as honesty, responsibility, transparency, and fairness throughout all stages of research activity. The credibility of scientific knowledge depends directly on these principles, as the validity of results is conditioned by the accuracy of applied methods and the truthful reporting of data. However, the literature indicates that intensified academic competition may encourage the emergence of questionable practices such as self-plagiarism, the artificial fragmentation of results (“salami slicing”), selective reporting of data, or even data fabrication and falsification[2].

These phenomena should not be analyzed solely from the perspective of individual researcher responsibility, but also in relation to the institutional and normative framework within which academic activity is conducted. Evaluation systems predominantly based on quantitative productivity create incentives that can influence professional behavior and generate tensions between performance and ethics. Early-career researchers are

particularly vulnerable, as their professional development largely depends on the rapid and continuous publication of research outputs[3].

In this context, the legislative and institutional framework on academic integrity becomes essential. In Romania, the principles of university ethics and good research conduct are primarily regulated by National Education Law no. 1/2011 and Law no. 206/2004 on good conduct in scientific research, technological development, and innovation. These normative acts establish the obligation of higher education institutions to adopt codes of ethics and to set up specialized committees for investigating academic misconduct. They also define forms of scientific misconduct and provide sanctioning mechanisms applicable in cases of plagiarism, data falsification, or conflict of interest[5], [6].

At the European level, standards on research integrity are consolidated through documents such as the European Code of Conduct for Research Integrity, developed by ALLEA, which promotes values such as transparency, accountability, and scientific rigor. Although this document is not legally binding, its influence on university policies and European funding criteria is significant. In parallel, international organizations such as the Committee on Publication Ethics (COPE) contribute to the development of editorial and procedural standards aimed at preventing misconduct and ensuring author accountability[7], [8].

Based on these considerations, this paper aims to analyze the relationship between the “publish or perish” pressure and compliance with academic integrity standards. The research seeks both to identify the main forms of misconduct associated with publication pressure and to assess the effectiveness of legislative and institutional mechanisms designed to prevent them. The objective is not only to describe problematic practices, but also to highlight the limitations of the current academic evaluation system and the need for

an approach oriented toward research quality and responsibility.

MATERIALS AND METHODS

This paper is based on a qualitative analysis of the specialized literature on academic integrity and the “publish or perish” pressure. Scientific articles, institutional reports, and ethical guidelines published in indexed journals and by relevant research organizations were selected.

RESEARCH RESULTS

The conducted analysis highlights that the pressure associated with the “publish or perish” model significantly influences behaviors within the academic environment, generating an imbalance between productivity requirements and adherence to scientific rigor. The research results indicate a direct correlation between the intensity of institutional pressure and the increased frequency of questionable practices in research activity. In academic environments where performance evaluation is predominantly based on quantitative indicators, researchers tend to perceive publication not only as an activity of knowledge dissemination, but also as an essential instrument for professional survival.

A first important result of the research concerns the typology of misconduct identified in the specialized literature and institutional reports analyzed. The most frequent forms include indirect plagiarism, such as inadequate paraphrasing, improper use of sources, and the appropriation of ideas without proper attribution. Additionally, self-plagiarism and the fragmented publication of results appear as relatively widespread practices, particularly in fields characterized by high academic competition and strong pressure for rapid publication. These practices are often justified by the need to meet academic

promotion criteria or to gain access to research funding and grants.

In more severe cases, the analysis reveals the existence of misconduct such as data manipulation, deliberate omission of negative results, and selective reporting of findings. These practices directly affect the validity of research and may undermine public trust in the scientific community. From an ethical and legal perspective, such behaviors represent serious violations of the principles of good research conduct and may lead to institutional or professional sanctions.

The determinants identified in the research indicate that systemic pressure on researchers is amplified by current academic evaluation mechanisms. Requirements for publishing in internationally indexed journals, the emphasis on impact factor, and competition for grants contribute to the creation of an academic climate in which performance is primarily quantified numerically. In this context, early-career researchers are considered the most vulnerable, as their professional stability largely depends on external validation through publications and citations.

From a legislative perspective, the analysis reveals the existence of legal and institutional mechanisms designed to prevent and sanction deviations from academic integrity norms. In Romania, National Education Law no. 1/2011 establishes the general principles of university ethics and obliges higher education institutions to adopt codes of ethics and establish specialized committees for investigating misconduct. This regulatory framework grants universities the authority to analyze cases of plagiarism, academic fraud, or conflict of interest and to apply disciplinary sanctions[5].

In addition, Law no. 206/2004 on good conduct in scientific research, technological development, and innovation explicitly defines forms of scientific misconduct, including data fabrication, data falsification, and plagiarism. The act establishes procedures for handling

complaints and provides sanctions ranging from warnings to the withdrawal of academic titles or exclusion from research projects. The existence of these provisions contributes to strengthening academic responsibility and protecting research credibility[6].

An important role is also played by the National Council of Ethics for Scientific Research, Technological Development and Innovation (CNECSDTI), which analyzes complaints regarding deviations from ethical standards and issues official opinions. This body contributes to the harmonization of integrity standards at the national level and increases institutional accountability. However, the analysis highlights that the effectiveness of control mechanisms is sometimes limited by the duration of administrative procedures and the predominantly advisory nature of certain decisions[2].

At the European level, research integrity standards are promoted through documents such as *The European Code of Conduct for Research Integrity*, which establishes fundamental principles such as honesty, rigor, transparency, and responsibility. Although this code is not legally binding, its influence on university policies and European funding criteria is significant. Similarly, standards developed by organizations such as the Committee on Publication Ethics (COPE) contribute to strengthening editorial practices based on transparency and accountability[8].

The analysis of prevention mechanisms shows that digital tools for detecting textual similarity have improved institutions' ability to identify classical forms of plagiarism. However, their effectiveness is limited with regard to more subtle misconduct, such as data manipulation or idea reuse without explicit attribution. Consequently, the mere existence of technical tools or legal norms is not sufficient to ensure academic integrity.

A relevant result of the study is the importance of ethical education and institutional culture. Universities that

implement systematic training programs in research ethics and promote transparency in evaluation demonstrate higher awareness of academic standards and a lower frequency of misconduct. This suggests that the prevention of scientific misconduct cannot rely exclusively on sanctions but requires the development of an academic environment based on responsibility and genuine integrity.

Overall, the research results demonstrate that the “publish or perish” phenomenon represents not only an individual issue but a systemic one, influenced by the way academic performance is defined and evaluated. Although the current legislative framework provides important tools for preventing and sanctioning misconduct, its effectiveness depends on consistent enforcement of rules and on reforming academic evaluation criteria toward valuing quality, transparency, and responsibility in research[1].

Beyond the behavioral and institutional factors identified, the research also highlights the significant role of the legal and normative framework in shaping academic integrity standards. The analysis of applicable legislation demonstrates that the prevention and sanctioning of research misconduct are no longer limited to moral recommendations or theoretical principles, but are increasingly supported by formal legal and institutional mechanisms at both national and European levels. In this context, assessing the effectiveness of legislative norms and competent institutions becomes essential for understanding how the academic system responds to pressures generated by the “publish or perish” model.

The analysis of the legislative and institutional framework regarding academic integrity highlights that existing regulations attempt to address the effects generated by “publish or perish” pressure; however, their effectiveness largely depends on implementation and the capacity of institutions to consistently enforce the rules. The research shows that current legislation

provides a relatively complex formal framework for preventing and sanctioning breaches of research ethics, but significant differences exist between the existence of rules and their practical application.

A first significant result concerns the central role assigned to universities by national legislation in managing academic integrity. National Education Law no. 1/2011 establishes the fundamental principles of university ethics and requires higher education institutions to adopt codes of ethics and create specialized committees for investigating misconduct. These provisions reflect the orientation of the Romanian legal system toward a decentralized model of integrity control, based on university autonomy. However, the research indicates that this autonomy produces different effects in practice: some universities develop effective prevention and control mechanisms, while others apply the rules in a formal or inconsistent manner, which may affect the uniformity of integrity standards at the national level[5].

The study also shows that Law no. 206/2004 on good conduct in scientific research is the main legal instrument for combating academic misconduct. The law explicitly defines forms of misconduct, including plagiarism, data fabrication, data falsification, and conflict of interest, thus providing a clear legal basis for sanctioning unethical behavior. An important finding is that the law introduces both individual responsibility of the researcher and institutional responsibility of research organizations, reflecting the idea that academic integrity cannot be reduced solely to individual conduct but also depends on organizational climate and existing oversight mechanisms[6].

At the same time, the analysis reveals certain limitations of the current legislative framework. Although the law defines forms of misconduct and establishes investigation procedures, the application of sanctions may be influenced by institutional or administrative factors. The duration of procedures, difficulties in evidence

collection, and the lack of uniform interpretative practices sometimes lead to inconsistent outcomes. Furthermore, sanctions provided by the law primarily target classical forms of misconduct, such as textual plagiarism, while more subtle practices associated with publication pressure such as “salami slicing,” selective reporting of results, or excessive self-reuse of publications are more difficult to legally classify and sanction[3].

Another important result concerns the role of the National Council of Ethics for Scientific Research, Technological Development and Innovation (CNECSDTI). The analysis shows that the existence of a national specialized body contributes to the strengthening of integrity standards and to the coordination of institutions. CNECSDTI has the competence to analyze complaints regarding research ethics violations and issue official opinions, providing a degree of uniformity in interpreting norms. However, its effectiveness is limited by the predominantly advisory nature of certain decisions and by the dependence of enforcement on university cooperation. The findings suggest that the lack of stronger executive mechanisms may reduce the practical impact of its decisions[4].

At the European level, the analysis highlights the importance of soft law instruments. The *European Code of Conduct for Research Integrity*, developed by ALLEA, promotes fundamental principles such as honesty, rigor, transparency, and responsibility in research. Although not legally binding, it significantly influences academic policies and European funding criteria. The findings indicate that universities and research organizations tend to incorporate these standards into internal regulations to align with requirements imposed by funding programs such as Horizon Europe. Thus, soft law norms acquire indirect normative force through financial and institutional conditionality[1].

The analysis also highlights the importance of data protection and transparency regulations in research. The

General Data Protection Regulation (GDPR) influences how researchers collect, process, and publish information used in scientific activity. The findings show that data protection obligations have led academic institutions to develop additional compliance and ethical review procedures, particularly in fields involving sensitive data. At the same time, these obligations sometimes create tensions between scientific transparency and the protection of individual rights[4].

A relevant aspect identified in the research is the role of editorial mechanisms and international self-regulation. Organizations such as the Committee on Publication Ethics (COPE) have developed standards and guidelines on conflict of interest, article retraction, and author responsibility. The results show that journal editorial policies represent an important complementary instrument to formal legislation. In many cases, editorial sanctions such as article retraction or temporary publication bans have a significant professional impact and contribute to strengthening a culture of academic responsibility[8].

Finally, the analysis of prevention mechanisms highlights the limited effectiveness of purely technical tools. Anti-plagiarism systems used by universities and journals contribute to detecting textual similarities and standardizing originality checks, but they cannot identify all forms of misconduct. Data manipulation, intentional omission of results, or distorted interpretation of findings remain difficult to detect through automated methods. This limitation demonstrates that preventing academic misconduct cannot rely solely on digital tools but requires the development of an institutional culture grounded in ethics and responsibility[4].

A key finding of the research is that the effectiveness of the legislative framework largely depends on the relationship between legal norms and academic culture. Institutions that promote ethical education, transparency in

evaluation, and professional responsibility report lower levels of misconduct and higher awareness of integrity standards. Conversely, in environments dominated exclusively by quantitative performance competition, legal norms tend to be perceived as punitive tools rather than as guiding principles for proper conduct[9].

Overall, the research results suggest that the current legislative framework provides an important foundation for protecting academic integrity; however, its effectiveness is limited by the systemic nature of the “publish or perish” pressure. Addressing the negative effects generated by this model requires not only strengthening legal and institutional mechanisms, but also reforming academic evaluation criteria. An exclusive focus on quantitative productivity must be gradually replaced with an approach oriented toward research quality, transparency, reproducibility, and scientific responsibility[3].

CONCLUSIONS

In conclusion, the conducted analysis leads to the finding that the “publish or perish” phenomenon represents a systemic pressure factor within the academic environment, with direct effects on research behaviors and scientific integrity. It is not merely a matter of isolated individual misconduct, but rather of an institutional context that, through its performance evaluation mechanisms, may foster the emergence of questionable practices. When professional success is predominantly conditioned by quantitative indicators, publication becomes less an authentic process of knowledge production and dissemination and more a requirement for academic survival.

A second key aspect highlighted is the existence of a direct relationship between the intensity of institutional pressure and the frequency of research ethics violations. Practices such as indirect plagiarism, self-plagiarism, or fragmented publication appear more frequently in highly

competitive academic environments, where promotion criteria are dominated by publication count and international visibility. In more severe cases, such as data manipulation or selective reporting of results, the impact is no longer merely ethical but directly affects the validity of scientific knowledge itself.

An important conclusion refers to the fact that the existing legislative and institutional framework, although relatively complex and well-structured, has limited effectiveness in the absence of consistent and uniform implementation. Laws such as National Education Law no. 1/2011 and Law no. 206/2004 provide clear instruments for defining and sanctioning misconduct; however, differences in implementation across institutions, procedural delays, and evidentiary challenges reduce their practical impact. Consequently, a gap persists between formal regulations and their actual enforcement. At the same time, the analysis highlights the important yet insufficient role of ethics bodies and control mechanisms such as the CNECSDTI. Although these contribute to the harmonization of standards and the formulation of national-level opinions, their often advisory nature limits their capacity for effective intervention. Similarly, technical tools (such as anti-plagiarism software) have improved the detection of certain forms of misconduct, but they cannot fully cover the complex spectrum of scientific misconduct.

A central conclusion of the research is that the prevention of academic misconduct cannot be achieved solely through sanctions or technical control instruments. Its real effectiveness depends decisively on institutional culture and the level of ethical education among researchers. Universities that invest in ethical training, transparency, and professional responsibility succeed in reducing the incidence of unethical behaviors, demonstrating the importance of a preventive rather than exclusively punitive approach.

At the same time, international and European standards, in the form of soft law such as research integrity codes, have a significant indirect impact, particularly through their influence on access to funding and international collaborations. This shows that non-binding norms can nevertheless become highly influential in practice, contributing to the harmonization of integrity standards at the global level.

The final conclusion of the research is that the “publish or perish” phenomenon cannot be effectively managed through isolated measures, but requires an integrated approach. Academic evaluation criteria must be reformed, shifting the emphasis from quantity alone to the quality, transparency, and reproducibility of research. Only through the coherent combination of a legislative framework, institutional mechanisms, and a strong academic culture can the real consolidation of research integrity be achieved and the pressures that encourage unethical behavior be reduced.

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