

Charting Ethical Communication in Relation to Integrity in Scientific Research

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Abstract. The current study endeavours to highlight the importance of being aware of and adhering to regulations regarding ethics and integrity while conducting scientific research. It underlines that complying with ethical norms and pursuing strong moral values has become a prerequisite to pristine professional conduct, a sign of respect towards the academic community. As such, the paper firstly offers a general overview concerning key factors that should be taken into consideration so that deviant, unethical decisions do not reflect poorly on any profession. There is also a section dedicated to the impact of research misconduct and case studies are presented in order to address the breaches that can appear. Accordingly, it dwells on multiple international guidelines that have been published, while also reflecting on how our own country has contributed to creating reference frameworks that promote a responsible direction in scientific research. Starting with the European Charter for Researchers issued in 2005 by the European Commission, the paper underscores major guidelines of ethically justified scientific practice in countries such as Belgium, the Netherlands, or the UK. It lastly focuses on ethical considerations in Romania, especially in relation to current implications regarding the use of artificial intelligence, pondering on how recent technological developments have impacted humans' adherence to ethical principles and values.

Keywords: ethics, integrity, scientific research, guidelines, AI regulation.

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Introduction

Ethical considerations should be at the core of every researcher's scientific endeavor to ensure that (s)he adequately fulfils the mission of making a contribution to the research field(s) that (s)he is interested in. One should bear in mind that taking into consideration all the ethical aspects does not only reinforce the visibility and recognition of the conducted research, but it also confirms the level of respect towards the academic community, as a whole, and the determination not to lower one's standards, at an individual level. In fact, being honest and having strong moral principles that you refuse to change, no matter the situation or context that you are confronted with, stands for unimpeachable integrity and character.

In scientific research, integrity is guaranteed by adhering to values that both researchers and research organizations must meet through principles and / or guidelines. According to a document issued by the European Commission in 2018, which aims to signal the importance of *Ethics in Social Sciences and Humanities*, two different ethical dimensions of research can be observed: “«procedural ethics», pertaining to the aspects of compliance in performing research, and «ethics in practice», the everyday ethical issues that arise while doing research.” (2018, p. 3). As such, it is of utmost importance not only to consider the impact of acknowledging and complying with recognized principles but also to achieve the desired results by actually conducting the research in a responsible manner.

Responsibility is closely linked to academic freedom, that is, no matter if researchers can choose from a wide array of topics and set their aims independently, they must reach their goals conscientiously. *The European Charter for Researchers* clarifies this aspect, albeit referring to research freedom instead of academic liberty as a general principle to be applied: “Researchers should focus their research for the good of mankind and for expanding the frontiers of scientific knowledge, while enjoying the freedom of thought and expression, and the freedom to identify methods by which problems are solved, according to recognised ethical principles and practices. Researchers should, however, recognise the limitations to this freedom that could arise as a result of particular research circumstances (including supervision / guidance / management) or operational constraints, e.g. for budgetary or infrastructural reasons or, especially in the industrial sector, for reasons of intellectual property protection. Such limitations should not, however, contravene recognised ethical principles and practices, to which researchers have to adhere.” (2005, p. 11).

Literature Review

Ethical concerns have been addressed in various fields and across multiple areas worldwide. In Romania, the Ministry of Education and Research requested the National Council of Ethics in Scientific Research, Technological Development and Innovation to issue a document that would contribute to the consolidation of responsible science, values, and good practices of integrity within the scientific research communities that are part of the research and development system in Romania. The national regulations (*Ghid de integritate în cercetarea științifică*) were published in 2020 and feature four values that are pivotal in scientific research: honesty, responsibility, verifiability and validity (2020, pp. 5-6).

In terms of international guidelines, however, there are several documents which stipulate the correct decisions that researchers have to make regardless of the stage of research process in which (s)he finds himself / herself, thus, showing respect for the entire academic community. In October 2018, The European Commission issued the guidelines entitled *Ethics in Social Science and Humanities*, focusing much of the intended content methods of mitigating ethical problems that could appear especially when social sciences and humanities methodology is employed. As such, the document proposes the following central principles correlated especially with EU-funded research: “respecting human dignity and integrity, ensuring honesty and transparency towards research subjects, respecting individual autonomy and obtaining free and informed consent (as well as assent whenever relevant), protecting vulnerable individuals, ensuring privacy and confidentiality, promoting justice and inclusiveness, minimising harm and maximising benefit, sharing the benefits with disadvantaged populations, especially if the research is being carried out in developing countries, respecting and protecting the environment and future generations.” (2018, p. 5).

The document also provides useful insight into ethical dimensions of research methodology, informed consent, findings outside the scope of research (categorized as “unintended / unexpected / incidental findings”, data protection and privacy, sites of research (with a special focus on risks, harm and risk assessment), misuse of research, ethics approval in social sciences and humanities research, management of ethics issues and others as well.

This is actually a reference framework applied specifically to social sciences and humanities and reinforces the general principles and requirements enumerated in the *European Charter for Researchers* issued by the European

Commission on the 11th March 2005. Addressing researchers, employers and funders alike, this framework proposed the following general principles and requirements applicable to researchers: research freedom, ethical principles, professional responsibility, professional attitude, contractual and legal obligations, accountability, good practice in research, dissemination, exploitation of results, public engagement, relation with supervisors, supervision and managerial duties and continuing professional development. Concurrently, employers and funders must adhere to another category of general principles and requirements such as: recognition of the profession, non-discrimination, research environment, working conditions, stability and permanence of employment, funding and salaries, gender balance, career development, value of mobility, access to research training and continuous development, access to career advice, intellectual property rights, co-authorship, supervision, teaching, evaluation/appraisal systems, complaints/appeals, participation in decision-making bodies and recruitment.

There are also reference frameworks which establish major guidelines of ethically justified scientific practice in certain countries. For example, the *Code of Ethics for Scientific Research in Belgium* (2009) comprises six values which are presented as three pairs. The first one refers to rigour and caution and pinpoints the obligation to avoid generating any negative effects. The second one explains that reliability and verifiability are at the core of conducting trustworthy research that can be reproduced, if necessary. The third pair signals the importance of independence and impartiality, highlighting that rules of a scientific nature guide researchers who must rely on objectivity throughout the entire research process.

In 2018, a new document is published as an updated version of the *Netherlands Code of Conduct for Academic Practice* (2004). As such, the *Netherlands Code of Conduct for Research Integrity* signals that more attention should be devoted to the importance of research integrity especially in the context of modern knowledge societies and the continuous development that we are experiencing. The main principles that are described in this document feature: honesty, scrupulousness, transparency, independence and responsibility. We can observe that two of them, namely honesty and responsibility also feature in our national set of guidelines published two years after, in 2020.

Prior to both reference frameworks, the *Danish Code of Conduct for Research Integrity* (2014) sets only three principles of research integrity which should be applied in all the stages of research: honesty, transparency and accountability. Once more, honesty appears to be at the forefront of the

discussions in connection to high-quality research and education, overall. Nevertheless, the Danish Code of Conduct supplements the three principles with six basic standards while conducting responsible research: research planning and conduct, data management, publication and communication, authorship, collaborative research and conflicts of interest.

Recently, the UK Research Integrity Office published the *Code of Practice for Research* with the intention of complementing the existing guidance on research conduct, which also features *The Concordat to Support Research Integrity* with its Five Commitments (2019 edition): “maintaining the highest standards”, “ethical, legal and other frameworks”, “research culture”, “dealing with research misconduct” and “strengthening research integrity”. The *Code of Practice for Research* includes, first of all, a checklist for researchers which is, basically, a set of questions that they must provide answers for but only after they have explored the guidance available in another section of the document. In addition to the five commitments that we have already mentioned, the revised edition pinpoints other key elements which foster a healthy research culture such as: research vigour, reflection, transparency and environmental impact. (2023, p. 7). The last part of the document is dedicated to highlighting standards for organisations and researchers alike.

Ethical misconduct in research. Impact and case studies

There are multiple implications if research misconduct is investigated and proven, since we all know that lying or cheating can have negative consequences no matter the researchers’ motivation(s) behind this improper behaviour. Accordingly, there can be various penalties for scientific misconduct but only if one discovers the faulty behaviour and provides solid evidence in that specific misconduct case. For example, in some researchers’ view, “fabrication and falsification contaminate scientific literature with incorrect information, which wastes funds, hampers medical and technological development, and poses risks to patients and consumers, while plagiarism deprives authors of credit for their work” (DuBois et al., 2013, p. 321). It is also important to mention that “misconduct cases are typically shrouded in secrecy, and studies on professional wrongdoing suggest that the causes of misconduct are complex.” (DuBois et al., *idem*). Accordingly, if incorrect (unethical) actions are undertaken by researchers, there is a risk that “in some cases, the extent of the penalty is that the researcher’s reputation is forever tainted” (D’Angelo, 2018, p. 35).

The revised edition of *The European Code of Conduct for Research Integrity* also appeared in 2023 with the following fundamental principles to guide not only individuals, but also institutions and organisations in their quest to ensure research integrity: reliability, honesty, respect and accountability. Once again, honesty appears to be a crucial factor in promoting an ethical mindset. Good research practices are also described in these guidelines in connection to eight different contexts: “research environment”, “training, supervision and mentoring”, “research procedures”, “safeguards”, “data practices and management”, “collaborative working”, “publication, dissemination and authorship” and “reviewing and assessment”. (2023, p. 6). The last section of the reference framework signals violations of research integrity as forms of “research misconduct”, such as: fabrication, falsification, plagiarism, failure to meet legal, ethical and professional obligations, misrepresentation of [data, involvement, interests, qualifications, publication history], improper dealing with allegations of misconduct.

In the context of misconduct, Marijke Van Buggenhout, Jenneke Christiaens and Serge Gutwirth submitted a document in 2017 entitled *Promoting Integrity as an Integral Dimension of Excellence in Research. Final Report on the Incidence of Misconduct*. The document was resubmitted after the final review report with the abbreviated title PRINTEGER and besides the background information on the measurement of misconduct in science, it also features reports on research misconduct in the following countries: The Netherlands, Estonia, Norway, Belgium, Italy and Great Britain. The data collection method and the results are also provided in this comprehensive study. Additionally, in 2019 the ENRIO Handbook was published, providing another set of as *Recommendations for the Investigation of Research Misconduct*. In the Preamble, we can discover that ENRIO stands for the European Network of Research Integrity Offices, which was founded as an initiative by UKRIO (the UK Research Integrity Office). The discrepancies between the European Code of Conduct (Coc) and this handbook are also emphasized according to the detailed section which is added to the latter, comprising “detailed practical recommendations on how to deal with research misconduct and other unacceptable practices”. (2019, p. i).

In *Ethics in Science: Ethical Misconduct in Scientific Research* (2018), D’Angelo explores each type of misconduct as an effective strategy to prevent such cases of ethical violation. Since the main focus of this paper is to provide an overview of ethics and integrity and research, we will not concentrate on

exploring each type of misconduct in detail, but present the historical cases that he enumerates. Thus, in Chapter 9, he starts with “intentional negligence in acknowledgment of previous work done” and continues to provide explanations for “deliberate fabrication of data”, “deliberate omission of known data that doesn’t agree with hypotheses”, “passing another researcher’s data as one’s own”, “publication of results without consent of all the researchers”, “failure to acknowledge all the researchers who performed the work”, “conflict of interests”, “repeated publication of too similar results”, “breach of confidentiality” and “misrepresenting others work” (D’Angelo, 2018, p. 101-106). In the following pages, he also covers some case studies applying the following methodology for each case under discussion: summary, starting point, resolution, questions to ponder and sources. The inclusion of questions to ponder is explained in the first paragraph of the chapter: “Unlike the examples covered previously, for which it was clear that misconduct occurred, and penalties were levied, some of the cases that follow in this section are much less clear-cut. It is the intent behind this presentation that these cases stimulate conversation (and perhaps even lively debate) about whether misconduct has taken place (D’Angelo, 2018, p. 109). The fifteen analysed cases are the following: Darwin and Wallace, Rangaswamy Srinivasan – Visx Patent Dispute, Schwartz and Mirkin, Corey and Woodward, Córdova, Woodward and Quinine, DNA, David Baltimore and Theresza Imanishi-Kari, John Fenn-Yale Patent Dispute, Vioxx, Autism and Measels, Mumps, and Rubella Vaccine, Italian Earthquake Scientists, The Red River Floods, Animals Lost During Storms or Other Acts of Nature and Transfer of a Patent to an Indian Tribe to Avoid its Invalidation. Another significant article that we find significant to mention at this point, especially due to the authors’ historiometric approach (statistical analysis of coded data from historical narratives) is “Understanding Research Misconduct: A Comparative Analysis of 120 Cases of Professional Wrongdoing” published in 2013.

Our research also signals another valuable reference in terms of addressing breaches of research and surveying publication ethics. Founded in 1997, as “a voluntary body providing a discussion forum and advice for scientific editors”, COPE (Committee on Publication Ethics) “aims to find practical ways of dealing with the issues, and to develop good practice” (COPE, *Guidelines on Good Publication practice*, p. 43). As such, the *Guidelines on Good Publication practice* “should be useful for authors, editors, editorial board members, readers, owners of journals, and publishers. Intellectual honesty

should be actively encouraged in all medical and scientific courses of study, and used to inform publication ethics and prevent misconduct.” (COPE, *idem*). There are ten guidelines proposed to ensure the ethics of scientific publishing (study design and ethical approval, data analysis, authorship, conflict of interests, the peerreview process, redundant publication, plagiarism, duties of editors, media relations, advertising) and a special section dedicated to dealing with misconduct. For the purpose of our research, we also wish to highlight that this forum has got a special section where specific publication ethics issues are presented and discussed by COPE Members. The particular cases under consideration are anonymised and advice is given during COPE Forum meetings, from the COPE Council and COPE Members across various regions and disciplines. It is important to point out that the case studies we have chosen have got an on-going status, which means that the final conclusions have not yet been drawn.

Current Trends and Developments

Scientific research integrity in Romania is regulated by Law no. 206 / 2004 on proper conduct in scientific research. The key legal aspects and definitions of misconduct are outlined in this document, and the law identifies three main categories of violations, namely plagiarism, data fabrication, and data falsification. The legislation aims to provide ethical standards and encourage responsible behaviour among researchers, including universities and research institutes. There are multiple practices that are considered inconsistent with appropriate conduct in research and development, such as: concealing or omitting unfavourable or undesired research results, fabricating research data, substituting actual findings with fabricated or fictitious data, intentionally misinterpreting research results or drawing misleading conclusions, plagiarizing the findings or publications of other researchers, deliberately misrepresenting or distorting the research outcomes of others, incorrect or unethical attribution of authorship, inclusion of false or misleading information in grant or research funding applications, failure to disclose actual or potential conflicts of interest, misappropriation or unauthorized use of research funds, failure to register or report research results when required, lack of objectivity in the evaluation process and failure to comply with confidentiality obligations, or

repeated publication of the same research findings while presenting them as novel scientific contributions.

In cases where breaches of good conduct in research and development are identified and proven, the National Ethics Council may recommend the application of one or more of the following sanctions: removal of the individual or individuals from the research project implementation team, replacement of the project manager, retraction and /or correction of all publications produced in violation of the principles of good research conduct, issuance of a formal written warning, demotion to a lower position or rank, temporary suspension from professional duties, dismissal from employment.

In order to complement this legislation, the Ministry of Education and Research requested the National Council of Ethics in Scientific Research, Technological Development and Innovation (CNECSDTI – Consiliul Național de Etică a Cercetării Științifice, Dezvoltării Tehnologice și Inovării) to issue a document that would contribute to the consolidation of responsible science, values, and good practices of integrity within the scientific research communities that are part of the research and development system in Romania. The National Council of Ethics in Scientific Research, Technological Development and Innovation (CNECSDTI) of Romania is an advisory body without legal personality operating under the state authority responsible for research and development, as provided in Articles 5-8 of Law No. 206 / 2004. The National Authority provides administrative support to the CNECSDTI Research Department. As such, the Integrity Guide (*Ghid de integritate în cercetarea științifică*) was published on 12 November 2020. The national regulations feature four values that are pivotal in scientific research: honesty, verifiability, responsibility and validity (2020, pp. 5-6).

According to this guide, honesty in research requires adherence to the following principles: the rejection and prevention of all forms of intellectual misconduct (including plagiarism), the rejection and prevention of any practice involving the fabrication of data or the presentation of fictitious information as authentic research findings, the rejection and prevention of any form of data falsification, alteration, or manipulation, the explicit acknowledgment of each author's contributions to the development and creation of a collaborative scientific work, the clear identification of the specific contributions made by individual authors, where applicable, within the content of the publication, the proper recognition and citation of the author's previously published works to prevent self-plagiarism (2020, pp. 6-7). The honesty principle also

refers to the complete, accurate, and transparent reporting of research findings, irrespective of whether the results (1) support the initial research hypotheses or (2) align with the interests of research sponsors, funding bodies, or the researchers themselves. Last but not least, it involves respect for the public as the ultimate beneficiary and end user of research outcomes, which requires avoiding any form of manipulation through inadequate research design, inappropriate methodological choices, or the selective presentation of findings that may be influenced by the interests of funding organizations.

The second value that should be respected in the research process, verifiability, requires that research reports and the methodological sections of scientific publications provide a comprehensive description of the procedures used for data collection or generation, including information on the location, timeframe, and methods employed. In the case of qualitative social research, this requirement also includes providing relevant descriptive information regarding the socio-demographic characteristics of the interviewed participants. Verifiability also accounts for the presentation and dissemination of research findings, which must strictly adhere to confidentiality and data protection principles concerning the individuals or groups involved in the study. Also, any modifications made to datasets during the analytical process, such as the removal of outliers, the replacement of missing values for specific variables, or other forms of data transformation, must be clearly reported, explained, and scientifically justified (2020, p. 7). Also, the reporting of quantitative analysis results should include a clear specification of any data weighting procedures or techniques used for smoothing frequency distributions of particular variables while research data, whether quantitative or qualitative, should be archived according to standardized procedures and retained for defined periods of time.

The responsibility principle implies obtaining the informed consent of research participants before their involvement in data provision or experimental procedures constitutes an essential element of the aforementioned accountability practices, the establishment of institutional mechanisms for the prevention and sanctioning of deviations from the standards of good research practice within the relevant field, the selection of research topics addressing issues of significant social and human relevance. Eventually, conducting scientific research in a responsible manner means communicating research findings that contribute to strengthening public trust in researchers and research institutions (2020, p. 8).

In order to ensure validity of the research process, the guidelines refer to the application of specific tests designed to assess the consistency of new research findings in relation to previous research results, established theoretical frameworks, or objective evaluation criteria. Also, valid research implies the use of multiple analytical methods applied to the same dataset, or the implementation of methodological variations, to evaluate the extent to which research conclusions remain stable and reliable under different analytical approaches (2020, p. 8).

The Higher Education Law No. 199/2023 establishes that compliance with the principles and standards of university ethics and academic deontology is a mandatory requirement for all educational, research, and administrative activities conducted within higher education institutions. In accordance with national legislation, each university is required to develop and implement its own Code of Ethics, which must be consistent with the rules and principles established by the National Framework Code of University Ethics and Deontology (*Codul-cadru de etică și deontologie universitară*).

Due to current trends and developments concerning the rise of generative AI, the Government of Romania established the Scientific and Ethical Council for Artificial Intelligence in May 2023. The Council functions under the coordination of the Ministry of Research, Innovation and Digitalization as an advisory body to support the ethical and responsible use of artificial intelligence (AI) technologies at the national level. The Council plays an advisory role which consists in providing scientific and ethical expertise to the Government and public authorities to support the appropriate implementation and governance of emerging technologies. Recognized experts in the field (such as Maria Luciana Axente, who has international experience in AI ethics and governance) are in charge of regulating and supervising the following key areas of action: supporting the development of a legislative framework that is responsive to technological innovation, promoting transparent, human-centered approaches to the development and deployment of AI systems, and addressing and mitigating the risks associated with the uncontrolled use of algorithmic technologies.

Prior to the initiative of establishing the aforementioned Council and in relation to the topic of artificial intelligence, it is worth signaling that the University Politehnica of Bucharest and the Research Institute for Artificial Intelligence of the Romanian Academy, among others, had already founded in April 2011 a nonprofit scientific association. Thus, ARIA (Asociația Română

pentru Inteligență Artificială) contributes to fostering the generation, development, and dissemination of knowledge and technological innovation in the domain of Artificial intelligence, with the mission to advance research and education in the field.

Our findings underscore that the *European Ethics Guidelines for Trustworthy AI* was the first and most comprehensive reference framework. It was presented in April 2019 and pinpointed the “lawful”, “ethical” and “robust” characteristics that trustworthy AI should possess.

Shortly after, in May, the OECD (Organisation for Economic Co-operation and Development) adopted the first intergovernmental standard on AI – the *Recommendation on Artificial Intelligence*. UNESCO also released its *Recommendation on the Ethics of Artificial Intelligence* which was adopted on the 23rd November 2021. Raising ethical concerns on the accelerating use of AI technologies, the UNESCO guidelines serve as “a standard-setting instrument developed through a global approach, based on international law, focusing on human dignity and human rights, as well as gender equality, social and economic justice and development, physical and mental well-being, diversity, interconnectedness, inclusiveness, and environmental and ecosystem protection can guide AI technologies in a responsible direction.” (2021, p. 5).

On the 30th November 2023, the Council of Europe released the “Guidelines on the responsible implementation of artificial intelligence systems in journalism”, which were adopted by the Steering Committee on Media and Information Society (CDMSI) on 30 November 2023. Hence, with the new policy framework, additional sectoral guidance is available, narrowing the earlier recommendations that were much global in scope. For example, the discrepancy between an artificial intelligence system and a journalistic artificial intelligence system is clearly stated, as the latter is “directly related to the business or practice of regularly producing information about contemporary affairs of public interest and importance, including the research and investigation tasks that underpin journalistic outputs”. Moreover, the definition underpins that “this can include, but is not limited to, large language models and generative AI when used for journalistic purposes and / or news organisations”, reinforcing, at the same time, that these systems “are not a single technology but a range of different, often interlinked, tools for automating specific tasks” (CDMSI, 2023, p. 3).

Conclusion

As some scholars have already underlined, there is a fine line between good research practices and misconduct in scientific investigations. Unfortunately, there are also no universally accepted guidelines to distinguish unethical behaviour from actions which are ethically flawless (Wimmer & Dominik, 2014, p. 65). In fact, our research highlights several policy frameworks which have been developed to serve as recommendations or guidelines in order to inform the debate about ethics and the research process. Thus, an overview which we consider helpful encompasses the following regulations regarding ethics and integrity in research issued at both national and international levels, in a chronological order: *The European Charter for Researchers* (2005), *The Code of Ethics for Scientific Research in Belgium* (2009), *The Danish Code of Conduct for Research Integrity* (2014), *Ethics in Social Sciences and Humanities* (2018), *The Netherlands Code of Conduct for Academic Practice* (2018 - an updated version of the initial document published in 2004), *The Code of Practice for Research* (UKRIO, 2019), *Recommendations for the Investigation of Research Misconduct* (ENRIO, 2019), *Ghid the integritate în cercetarea științifică* (2020), *The European Code of Conduct For Research Integrity* (2023).

Recently, due to the fast pace at which technology has evolved, concerns regarding the ethical use of artificial intelligence have also been raised, thus resulting in policy frameworks and guidelines dedicated to AI regulation. Hence, by raising general awareness of the accelerating adoption of AI through the following sets of guidelines, we can ensure that ethical challenges are accounted for and discussed to avoid as much as possible shortcomings and inadequate deployment of AI systems that are incongruent with ethical principles: *The European Ethics Guidelines for Trustworthy AI* (2019), *The Recommendation on Artificial Intelligence* (OECD, 2019), *The Recommendation on the Ethics of Artificial Intelligence* (UNESCO, 2021), *Guidelines on the responsible implementation of artificial intelligence systems in journalism* (Council of Europe, 2023). We also signal the importance of establishing an advisory board in Romania in May 2023, namely the Scientific and Ethical Council for Artificial Intelligence (Consiliul Științific și de Etică în Inteligență Artificială), which could be interpreted as an act of alignment with international initiatives and commitment towards ethical and responsible deployment of AI.

References

- Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique. (2009). *Codes of Ethics for Scientific Research in Belgium*.
- ALLEA. (2023). *The European Code of Conduct for Research Integrity*, Revised Edition 2023. Berlin. DOI 10.26356/ECOC. ISBN 978-3-9823562-3-5.
- Bouter, L. M., Tjldink, J., Axelsen, N., Martinson, B. C., & ter Riet, G. (2016). Ranking major and minor research misbehaviors: results from a survey among participants of four World Conferences on Research Integrity. *Research Integrity and Peer Review*, 1(1), 17.
- Committee on Publication Ethics (COPE). *Guidelines on Good Publication Practice*, available at <https://publicationethics.org/files/u7141/1999pdf13.pdf> (accessed on 17.01.2024).
- COPE (Committee on Publication Ethics), *Guidelines on Good Publication Practice*, the COPE Report 1999, pp. 43-47.
- Council of Europe. CDMSI. (2023). "Guidelines on the responsible implementation of artificial intelligence systems in journalism", adopted by the Steering Committee on Media and Information Societies (CDMSI) on 30 November 2023.
- D'Angelo, John. (2018). *Ethics in Science: Ethical Misconduct in Scientific Research*. Second Edition, Chapman and Hall/CRC.
- DuBois, J. M., Anderson, E. E., Chibnall, J., Carroll, K., Gibb, T., Ogbuka, C., Rubbelke, T. (2013). Understanding Research Misconduct: A Comparative Analysis of 120 Cases of Professional Wrongdoing, *Accountability in Research*, 20:5-6, 320-338, DOI: 10.1080/08989621.2013.822248.
- ENERI, European Commission. (2019). *Recommendations for the Investigation of Research Misconduct. ENRIO Handbook of Research Integrity*, Bonn; Vienna, ENERI; ENRIO.
- European Commission. (2018). *Ethics in Social Sciences and Humanities*.
- European Commission. (2005). *The European Charter for Researchers*, 1-23.
- Godecharle, S., Nemery, B., & Dierickx, K. (2014). Heterogeneity in European research integrity guidance: relying on values or norms? *Journal of Empirical Research on Human Research Ethics*, 9(3), 79-90.
- Ministerul Educației și Cercetării, Consiliul Național de Etică a Cercetării Științifice, Dezvoltării Tehnologice și Inovării. (2020). *Ghid de integritate în cercetarea științifică*.
- Ministry of Higher Education and Science. (2014). *The Danish Guide of Conduct for Research Integrity*.
- National Health and Medical Research Council (2018). *Australian Guide for Responsible Conduct of Research*.
- Netherlands Code of Conduct for Research Integrity (2018). <https://doi.org/10.17026/dans-2cj-nvwu>.

- Reason, P. & Bradbury-Huang H. (eds.) (2008). *The SAGE Handbook of Action Research: Participative Inquiry and Practice*. Second Edition. SAGE Publications.
- UK Research Integrity Office. (2023). *Code of Practice for Research*.
<https://doi.org/10.37672/UKRIO.2023.04.codeofpractice>.
- UNESCO. (2022). *Recommendation on the Ethics of Artificial Intelligence*, adopted on 23 November 2021. United Nations Educational, Scientific and Cultural Organization.
- Van Buggenhout M., Christiaens J. and Gutwirth S. (2019). *Promoting Integrity as an Integral Dimension of Excellence in Research. Final Report on the Incidence of Misconduct* (PRINTEGER).
- Wimmer, R. D. & Dominick, J. R. (2014). *Mass Media Research: An Introduction*, Tenth Edition, Cengage Learning.

