Online Ethics Center
FOR ENGINEERING AND SCIENCE

Publication Ethics Bibliography

Author(s)

Kelly Laas

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Description

Includes a list of websites, books and journal articles that cover issues related to authoring and reviewing scientific publications.

Body

Guidelines and Policies on Publication Ethics

American Chemical Society Publication Guidelines
Guidelines for authors submitting to journals published by the American Chemical Society.

American Geophysical Union: Guidelines to Publication of Geophysical Research
Guidelines for authors submitting to journals published by the American Geophysical Union

American Psychological Association – Standard 8: Research and Publication
Section of APA's Ethical Principles of Psychologists and Code of Conduct that specifically deals with issues of publishing research.

American Physical Society – Guidelines on Responsibilities of Coauthors and Collaborators
A short section of APS Guidelines for Professional Conduct focusing on responsibilities of coauthors.

American Society of Civil Engineers (ASCE): Ethical Standards for Publications of ASCE Journals
Guidelines for authors submitting to journals published by the American Society for Civil Engineers

American Society of Mechanical Engineers (ASME): Ethical Standards
Adapted from the American Chemical Society, these are the standards that all authors submitting to ASME journals must follow.

Association for Computing Machinery: Rights and Responsibilities in ACM Publishing
Adopted in 2001, these guidelines lay out the responsibilities for authors, readers, reviewers, editors and libraries.

Institute of Electrical and Electronics Engineers: IEEE Intellectual Property Rights
Discusses IEEE's policy on plagiarism, multiple submission, guidelines for authors and other copyright information.

Council of Science Editors – Editorial Policy Statements
Guidelines adopted by the Council of Science Editors discussing the responsibilities of journal editors to their authors, peer reviewers, and readers.

Guidelines: Responsible Conduct Regarding Scientific Communication
Developed in 1995 by the Society for Neuroscience, these guidelines cover writing, reviewing, and editing peer-reviewed manuscripts; submission of abstracts to scientific meetings; and presentations to the lay public.

Guidelines from the Committee on Publication Ethics
A collection of guidelines for editors, peer reviewers, and authors.

International Committee of Medical Journal Editors
These guidelines, developed by the International Committee of Medical Journal Editors, have become the standard for deciding who merits being a co-author, disclosure of conflicts of interest, and how to resolve other ethical issues that arise in the publication of scientific research.

Nature Ethics Policies for Authors
A collection of policies on conflict of interest, authorship, and the use and integrity of images for manuscripts submitted to the journal Nature.

Science Magazine : Information for Authors
Guidelines for authors submitting manuscripts for publication to Science Magazine.

Society of Neuroscience – Guidelines for Responsible Conduct Regarding Scientific Communication
Provides specific guidelines for authors, reviewers, and editors of scientific publications.

Web Sites

Albert, Tim and Elisabeth Wagner. 2003. "How to handle authorship disputes: a guide for new researchers." *COPE Report*.

American Psychological Association- Publication Practices and Responsible Authorship
Discusses guidelines of the APA on handling authorship credit and other areas of publication ethics, including to official APA guidelines and other related organizations.

Managing Allegations of Scientific Misconduct: A Guidance Document for Editors
Put out by the U.S. Office of Research Integrity January 2000 this essay outlines the responsibilities of editors when authors who submitted manuscripts or published in

their journals face allegations of scientific misconduct.

Office of Research Integrity 1994: Working definition of plagiarism. Office of Research Integrity Newsletter 31

The definition of what constitutes plagiarism as adopted by the U.S. Office of Research Integrity.

Online Learning Tools for Research Integrity and Processing Images

This site explains what is appropriate in image processing in science and what is not. It also shows how best practices in handling images intersects with other best practices. Includes video case studies, guidelines, as well as a series of case studies.

Rockwell, Sarah. 2005. *Ethics of Peer Review: A Guide for Manuscript Reviewers*, Office of Research Integrity.

The peer review of scientific manuscripts is a cornerstone of modern science and medicine. Peer reviewed journals rely on expert and objective review by knowledgeable researchers to ensure the quality of the papers they publish. Moreover, the recommendations the reviewers make concerning publication and the advice they give to authors set the scientific standards of the discipline. In addition, their critiques set subtler standards of collegiality, behavior, and ethics, not only through their recommendations concerning which papers should be published and which should be rejected, but also through the tone and wording of their reviews and through the thought that they give to their scientific and ethical responsibilities as reviewers. The review of manuscripts for peer reviewed journals raises many ethical issues and problems. The reviewer should be aware of these when deciding whether to review a specific paper, throughout the process of handling the manuscript and writing the review, and even after the review is completed and submitted. This paper describes some of the ethical issues that can arise during the peer review process and discusses their implications.

Books

Bailar, John. 1990. *Ethics and policy in scientific publication*. Bethesda, MD: Council of Biology Editors.

This book reports on a survey done by the Council of Biology Editors to "identify, clarify, and assess the prevalence and seriousness of a variety of ethical problems that editors face in scientific publishing. Members of the Council were asked to

discuss fourteen scenarios describing unethical practices by authors, and asked the editors how they would deal with these issues. The book discusses the ethical issues inherent in each scenario, and gives recommendations for how editors can go about handling these situations.

Hauptman, Robert. 2003. *Authorial ethics: how writers abuse their calling*. Plymouth, UK: Lexington Books.
Discusses the many ethical issues in authorship across professions and disciplines, and diillustrates these issues with case studies.

Jones, Anne Hudson and F. McLellan. 2000. *Ethical issues in biomedical publication.* Baltimore: Johns Hopkins University Press.
After tracing the history of biomedical publication and setting its importance in the larger context of the responsible conduct of research, the author explains the current standards that have been developed by journal editors and discusses main issues such as authorship, peer review, repetitive publication, conflict of interest, and electronic publishing.

LaFollette, M.C. 1996. *Stealing into print: fraud, plagiarism, and misconduct in scientific publishing*. Berkeley: University of California Press.
The author looks at some of the ethical issues inherent in scientific publishing practices, how changes such as the proliferation of paper with multiple authors and electronic journals are putting new strains on the peer review system, and looks at ways in which the system might be changed to help reduce the level of plagiarism and misconduct in scientific publication.

"Reporting and Reviewing Research," in *ORI Introduction to RCR*, Nicholas Steneck, 129-158. Office of Research Integrity, 2007.
This booklet introduces the reader to the nine RCR core instructional areas in four sections that follows research from inception to planning, conducting, reporting, and reviewing research. The publication features case studies, text-box inserts, discussion questions, and electronic and printed resources.

Macrina FL, 2000. Chapter 4, *Authorship and peer review*. Scientific integrity: An introductory text with cases, 2nd ed: pp. 49-72. Washington D.C.: ASM Press.
In this chapter, Macrina highlights the key responsibilities for an author and a peer reviewer and provides case studies addressing ethical points, such as conflicts of interest, plagiarism, and authorship roles.

Shamoo AE, Resnik David. B, 2015. Chapter 4, *Publication and peer review.* The responsible conduct of research, pp. 68-92. New York: Oxford University Press.
In this chapter, the authors offer a history of scientific publication and describe the potential problems that can arise in publishing and peer review.

Journal Articles on Authorship

Adams, B. 2015. Time to kill the scientific "author"? *BMJ: British Medical Journal, 351(*8037):, h6560-6562. doi: 10.1136/bmj.h6560
The article focuses on the growing problem of guest authorship and considers measures to deal with this problem. It looks back at the controversies over the role of the author in science publishing and highlights recommendations on authorship from the International Committee on medical Journal Editors (ICMJE). It also suggests the importance of collaboration among scientists across disciplines and contributors to research.

Allen, L. et al. 2014. Credit where credit is due. *Nature,* 508(7496): 312-313. doi:10.1038/508312a
Discusses a system for establishing authorship credit in a collaborative paper.

Andreescu, L. 2013. Self-Plagiarism in Academic Publishing: The Anatomy of a Misnomer. *Science & Engineering Ethics, 19*3, 775-797. doi:10.1007/s11948-012-9416-1
The paper discusses self-plagiarism and associated practices in scholarly publishing. It approaches at some length the conceptual issues raised by the notion of self-plagiarism. It distinguishes among and then examines the main families of arguments against self-plagiarism, as well as the question of possibly legitimate

reasons to engage in this practice. It concludes that some of the animus frequently reserved for self-plagiarism may be the result of, among others, poor choice of a label, unwarranted generalizations as to its ill effects based on the specific experience (and goals) of particular disciplines, and widespread but not necessarily beneficial publishing practices.

Bebeau, M. J., & Monson, V. 2011. Authorship and Publication Practices in the Social Sciences: Historical Reflections on Current Practices. *Science & Engineering Ethics, 17(*2): 365-388. doi:10.1007/s11948-011-9280-4

In historical review of authorship definitions and publication practices that are embedded in directions to authors and in the codes of ethics in the fields of psychology, sociology, and education illuminates reasonable agreement and consistency across the fields with regard to (a) originality of the work submitted, (b) data sharing, (c) human participants' protection, and (d) conflict of interest disclosure. However, the role of the professional association in addressing violations of research or publication practices varies among these fields. Psychology and sociology provide active oversight with sanction authority. In education, the association assumes a more limited role: to develop and communicate standards to evoke voluntary compliance. With respect to authorship credit, each association's standards focus on criteria for inclusion as an author, other than on the author's ability to defend and willingness to take responsibility for the entire work. Discussions across a broad range of research disciplines beyond the social sciences would likely be beneficial.

Bohannon, J. 2016. Fight over author pseudonyms could flare again. *Science, 351*6276, 902-902. doi:10.1126/science.351.6276.902

Ethical concerns are raised when authors of a paper use a pseudonyms rather than their actual names.

Borenstein, Jason. 2011. Responsible Authorship in Engineering Fields: An Overview of Current Ethical Challenges. *Science and Engineering Ethics.* 17(2): 355-364. doi: 10.1007/s11948-011-9272-4.

The primary aim of this article is to identify ethical challenges relating to authorship in engineering fields.

Borenstein, J., & Shamoo, A. E. 2015. Rethinking Authorship in the Era of Collaborative Research. *Accountability in Research: Policies & Quality Assurance, 22(*5), 267-283. doi:10.1080/08989621.2014.968277

As the size and complexity of research teams continues to grow, concerns about traditional authorship schemes as the way to allocate credit for a contribution to a research project also continue to mount. This paper examines current authorship problems plaguing research communities and provide suggestions for how those problems could potentially be mitigated.

Broga, M., Mijaljica, G., Waligora, M., Keis, A., & Marusic, A. 2014. Publication Ethics in Biomedical Journals from Countries in Central and Eastern Europe. *Science & Engineering Ethics, 20(*1), 99-109. doi:10.1007/s11948-013-9431-x

This article, examines publication ethics policies in biomedical journals published in Central and Eastern Europe to determine possible differences between East European countries that are members of the European Union. The most common ethical issues addressed by all journals in the region were redundant publication, peer review process, and copyright or licensing details. Image manipulation, editors' conflicts of interest and registration of clinical trials were the least common ethical policies. Three aspects were significantly more common in journals published outside the EU: statements on the endorsement of international editorial standards, contributorship policy, and image manipulation. On the other hand, copyright or licensing information were more prevalent in journals published in the Eastern EU. The existence of significant differences among biomedical journals' ethical policies calls for further research and active measures to harmonize policies across journals.

Burks, R. L., & Chumchal, M. M. 2009. To Co-Author or Not to Co-Author: How to Write, Publish, and Negotiate Issues of Authorship with Undergraduate Research Students. *Science Signaling, 2* 9(4), tr3-tr3. doi:10.1126/scisignal.294tr3

This Teaching Resource emphasizes the value of publishing with undergraduates and may be particularly helpful to incoming faculty who are new to the process of working with students. Beyond simply extolling the virtues of undergraduate research, we examine how such deep learning experiences for students can translate into unique opportunities for the faculty to demonstrate devotion to both teaching and scholarship.

Caelleigh, A.S. 2003. Roles for scientific societies in promoting integrity in publication ethics. *Science and Engineering Ethics* 9(2): 221-241. doi: 10.1007/s11948-003-0010-4

Scientific societies can have a powerful influence on the professional lives of scientists. Using this influence, they have a responsibility to make long-term commitments and investments in promoting integrity in publication, just as in other

areas of research ethics.

Claxton, L. D. (2005). Scientific authorship. Part 1. A window into scientific fraud? *Mutation Research* 589(1):17-30.
The examination of a single scientific manuscript seldom alerts scientists, reviewers, editors, and scientific administrators to the fabrication and falsification of data and information. This review shows that most documented cases of scientific fraud involve falsification (altering truthful information) and fabrication (inventing information where none previously existed). Plagiarism is much less frequent.

Claxton, L. D. (2005b). Scientific authorship. Part 2. History, recurring issues, practices, and guidelines. *Mutation Research* 589(1):31-45.
Discusses some problems that can center around authorship and the publishing of scientific manuscripts and provides a historical overview of commonly encountered issues.

Clement, T. 2014. Authorship Matrix: A Rational Approach to Quantify Individual Contributions and Responsibilities in Multi-Author Scientific Articles. *Science & Engineering Ethics, 20(*2), 345-361. doi:10.1007/s11948-013-9454-3
The article proposes a rational method for addressing an important question-who deserves to be an author of a scientific article? It proposes a new paradigm that conceptually divides a scientific article into four basic elements: ideas, work, writing, and stewardship. The authors employ these four fundamental elements to modify the well-known International Committee of Medical Journal Editors (ICMJE) authorship guidelines. The modified ICMJE guidelines are then used as the basis to develop an approach to quantify individual contributions and responsibilities in multi-author articles. The outcome of the approach is an authorship matrix, which can be used to answer several nagging questions related to authorship.

Couzin-Frankel, Jennifer and Jackie Grom. 2009. Plagiarism sleuths. Science 3245930: 1004-1007.
Discusses a new computer program which is capable of detecting plagiarized scientific publications, and Déjà vu, an online database that lists potentially plagiarized material.

Cutas, D., & Shaw, D. 2015. Writers Blocked: On the Wrongs of Research Co-authorship and Some Possible Strategies for Improvement. *Science & Engineering Ethics,* 21(5), 1315-1329. doi:10.1007/s11948-014-9606-0

The various problems associated with co-authorship of research articles have attracted much attention in recent years. The authors explore their own field of bioethics to highlight some of the harmful implications of current practices of research authorship for junior researchers. Attribution of co-authorship for reasons other than merit in relation to the publication misrepresents the work towards that publication, and generates unfair competition. The authors make a case for increasing awareness, for transparency and for more explicit guidelines and regulation of research co-authorship within and across research areas.

Farthing, M.A. 2006. Authors and publication practices. *Science and Engineering Ethics*. 121: 41-52.

Article discusses the need for authors, editors and reviews to disclose any conflicts of interests they may have.

Foo, J., & Wilson, S. 2012. An Analysis on the Research Ethics Cases Managed by the Committee on Publication Ethics COPE Between 1997 and 2010. *Science & Engineering Ethics, 18(*4), 621-631. doi:10.1007/s11948-011-9273-3

In view of the increasing concern and the complexity of research misconduct in scientific publishing, the Committee on Publication Ethics (COPE) was established in 1997 to manage cases with ethical implications. In order to review the outcomes of cases investigated by COPE, a total of 408 cases that had been managed by COPE were successfully extracted and analysed with respect to 7 distinct criteria. The results obtained indicate that the number of ethical implications per case has not changed significantly (p > 0.01) since the year COPE was instigated. Interestingly, the number of ethical cases, and to some extent, research misconduct, is not diminishing. Therefore, journal editors and publishers need to work closely together with COPE to inculcate adoption of appropriate research ethics and values in younger researchers while discouraging others from lowering standards.

Fine MA, Kurdek LA, 1993. Reflections on determining authorship credit and authorship order on faculty-student collaborations. American Psychologist, 4811: 1141-1147.

The purpose of this article is to explore the process of determining authorship credit and authorship order on collaborative publications with students. The article presents hypothetical cases that describe relevant ethical issues, highlights ethical principles that could provide assistance in addressing these dilemmas, and makes recommendations to faculty who collaborate with students on scholarly projects.

Greenland, P., & Fontanarosa, P. B. 2012. Ending Honorary Authorship. *Science, 337*6098, 1019-1019. doi:10.1126/science.1224988

Discusses how journals and institutions are working to develop policies to stop the practice of gift authorship.

House, M. C., & Seeman, J. I. 2010. Credit and Authorship Practices: Educational and Environmental Influences. *Accountability in Research: Policies & Quality Assurance, 17(*5), 223-256. doi:10.1080/08989621.2010.512857

A survey on credit issues of academic chemists in U.S. Ph.D.-granting institutions was conducted. The respondents rated 15 criteria for authorship of scientific publications; core intellectual contributions received the highest ratings although making a single suggestion that was essential to the successful completion of the project was rated very low. Acquisition of data was also rated highly. The respondents rated eight potential influences on their own 'policy' toward giving credit; doing what 'seems to be the right thing' was the highest rated influence followed by graduate educational experiences; professional society or other responsible conduct of research (RCR) institutional policies were rated, by far, the lowest.

Hren, D., Sambunjak, D., Marušić, M., & Marušić, A. 2013. Medical Students' Decisions About Authorship in Disputable Situations: Intervention Study. *Science & Engineering Ethics, 19(*2), 641-651. doi:10.1007/s11948-012-9358-7

Discusses the results of a study the accessed how medical students dealt with authorship dilemmas both before and after they received instruction. The authors found that teaching on the topic of publication ethics needs to change from being rule-based to using active-learning strategies that bring the intuitive processes into the students' awareness.

Jennings, M. M., & El-adaway, I. H. 2012. Ethical Issues in Multiple-Authored and Mentor-Supervised Publications. *Journal of Professional Issues in Engineering Education & Practice, 138(*1), 37-47. doi:10.1061/ASCEEI.1943-5541.0000087

This paper explores the ethical issues related to publication, authorship, and mentoring with the goal of better defining co-authorship standards and encouraging research ethics discussion and education within the academic civil engineering research community. Graduate students, junior and tenured faculty, technicians, administrators, and field practitioners in the civil engineering research community need to address the evolving ethical issues in multiple-authored and mentor-supervised publications. By using a five-step interrelated research methodology, the authors examine the current factors affecting the academic research environment and describe some of the unspoken but ethically questionable practices in the academic community. Most tangible rewards are on the basis of a faculty member's or researcher's publication record, and the increasing pressure to produce publications earlier and more often in the academic's career exacerbate the problem of a lack of clarity in ethical standards for multi-authored publications.

Jones, Anne Hudson. 2003. Can authorship policies help prevent scientific misconduct? What role for scientific societies? *Science and Engineering Ethics*. 9(2): 243-256.
The purpose of this article is to encourage and help inform active discussion of authorship policies among members of scientific societies. The article explains the history and rationale of the influential criteria for authorship developed by the International Committee of Medical Journal Editors, examines questions about those criteria that emerge from authorship policies adopted by several U.S. medical schools, and summarizes the arguments for replacing authorship with the contributor-guarantor model.

Lozano, G. 2014. Ethics of Using Language Editing Services in An Era of Digital Communication and Heavily Multi-Authored Papers. *Science & Engineering Ethics, 20(*2), 363-377. doi:10.1007/s11948-013-9451-6
Discusses some of the ethical pitfalls that can occur with authors –often authors for whom English is not their primary language- who use manuscript preparation, correction, or editing services. The authors discuss three main issues. First, the ease of collaboration possible in the internet era allows multiple iterations between the author(s) and the 'editing service', so essentially, papers can be co-written. Second, 'editing services' often offer subject-specific experts who comment not only on the language, but interpret and improve scientific content. Third, the trend towards heavily multi-authored papers implies that the threshold necessary to earn authorship is declining. In an increasingly international job market, awareness of this problem might prove increasingly important in authorship disputes, the allocation of research grants, and hiring decisions.

Marusic, Matko, et al. 2004. Authorship in a small medical journal: A study of contributorship statements by corresponding authors. *Science and Engineering Ethics* 10(3): 493-502. Doi: 10(3):493-502.
Using the authorship criteria of the International Committee of Medical Journal Editors, the authors of this study looked to see if poor adherence to these criteria is common in biomedical journals.

Marušić A., Bošnjak L., and Jerončić, A. (2011). A systematic review of research on the meaning, ethics and practices of authorship across scholarly disciplines. *PLoS ONE* 6(9): e23477. doi:10.1371/journal.pone.0023477
The purpose of this systematic review was to evaluate evidence about authorship issues and provide synthesis of research on authorship across all research fields.

High prevalence of authorship problems may have severe impact on the integrity of the research process, just as more serious forms of research misconduct. There is a need for more methodologically rigorous studies to understand the allocation of publication credit across research disciplines.

Moffatt, B. 2011. Responsible Authorship: Why Researchers Must Forgo Honorary Authorship. *Accountability in Research: Policies & Quality Assurance, 18(*2), 76-90. doi:10.1080/08989621.2011.557297

Although widespread throughout the biomedical sciences, the practice of honorary authorship-the listing of authors who fail to merit inclusion as authors by authorship criteria-has received relatively little sustained attention. Is there something wrong with honorary authorship, or is it only a problem when used in conjunction with other unethical authorship practices like ghostwriting?

Parrish, Deba, and Bridget Noonan. 2009. Image manipulation as research misconduct. *Science and Engineering Ethics*. 152: 161-167. doi: 10.1007/s11948-008-9108-z

Authors look at a number of cases handled by the U.S. Office of Research Integrity that involved image manipulations, the misconduct associated with this action, detection methods, and the sanctions opposed on authors found guilty of image manipulation in these cases.

Plemmons, D. 2011. A Broader Discussion of Authorship. *Science & Engineering Ethics,* 17(2), 389-398. doi:10.1007/s11948-011-9271-5

While it may be useful to consider the development of new topics in teaching the responsible conduct of research (RCR), it is perhaps equally important to reconsider the traditionally taught core topic areas in both more nuanced and broader ways. This paper takes the topic of authorship as an example. Through the description of two specific cases from sociocultural anthropology, ideas about credit and responsibility are examined. It is suggested that placing more focus on the array of meanings found in the act of authoring might help students see themselves as part of a wider community both of scientists and beyond science.

Rennie, Drummond; V. Yank and Linda Emanuel. 1997. When authorship fails: A proposal to make contributors accountable. *Journal of the American Medical Association* 27(8): 579-585.
A proposal for a policy change to make investigators less likely to seek or accept credit through the mechanism of undeserved authorship.

Resnik, David B. et. al. A proposal for a new system of credit allocation in science in "Forum on Authorship" *Science and Engineering Ethics*. 3(3): 237-266. doi: 10.1007/s11948-997-0023-5
This essay discusses some of the problems with current authorship practices and puts forward a proposal for a new system of credit allocation: in published works, scientists should more clearly define the responsibilities and contributions of members of research teams and should distinguish between different roles, such as author, statistician, technician, grant writer, data collector, etc.

Ritter, S.K. 2001. Publication ethics: Rights and wrongs. *Chemical and Engineering News* 794(6): 24-31.
The author discusses some potential ethical issues raised in the area of authorship, guidelines that have been put in place by the American Chemical Society and the Office of Sponsored Research to help guide faculty and graduate students, and discusses some case studies where disputes about authorship arose.

Seeman, J. I., & House, M. C. 2010. Influences on Authorship Issues: An Evaluation of Receiving, Not Receiving, and Rejecting Credit. *Accountability in Research: Policies & Quality Assurance* , 17(4), 176-197. doi:10.1080/08989621.2010.493094
A survey on authorship issues was conducted with academic chemists in Ph.D.-granting institutions in the United States. Six hundred faculty members responded. The respondents reported a wide range in their attitudes and behavior regarding giving credit in a publication. The various guidelines for authorship are independent of academic background factors such as the relationship between the senior author and the contributor-potential author. However, the survey data reveal significant context-dependency by the respondents. Many respondents would give more credit to their own student than to another professor's student for the exact same contribution to a research project. The survey data further shows that the faculty who received their Ph.D. in the 1940s, 1950s, and 1960s are the most likely to provide authorship, while those who received their Ph.D. in the 1990s and 2000s would most likely give either no credit or acknowledgments.

Seeman, J. I., & House, M. C. 2015. Authorship Issues and Conflict in the U.S. Academic Chemical Community. *Accountability in Research: Policies & Quality Assurance, 22(*6), 346-383. doi:10.1080/08989621.2015.1047707
A survey on credit issues was conducted with academic chemists in Ph.D. granting institutions in the U.S. Six hundred faculty members responded. Fifty percent of the respondents reported not receiving appropriate credit for contributions they had made to projects the results of which had been published, including when they themselves were students. Thirty percent of these individuals discussed this lack of credit with the "offending" individual, and as a consequence of those discussions, a small percentage of individuals were provided either co-authorship or an acknowledgment. The majority who did not enter into a discussion with the "offending" individual reported two primary reasons for not doing so: that they "could not imagine any good coming from such a conversation" and "I was afraid of being in a compromised situation." A discussion of relationship asymmetry in the academic setting is provided. Confronting one's colleague regarding credit is compared with whistleblowing, and the possible consequences of blacklisting are discussed. A number of recommendations for minimizing authorship disputes are provided.

Sheskin, Theodore. J. 2006. An analytic hierarchy process model to apportion co-authorship responsibility. *Science and Engineering Ethics* . 12(3): 555-565. doi:

10.1007/s11948-006-0053-4
Article describes a process that can be used to determine the responsibilities of coauthors, with the objective to hold each one accountable for their individual contributions.

Sikes, Pat. 2009. Will the real author come forward: Questions of ethics, plagiarism, theft, and collusion in academic research writing. *International Journal of Research & Method in Education*. 32(1): 13-24. doi: 1
0.1080/17437270902749247
This paper raises some questions about academic authorial honesty under the headings of Plagiarism (including self-plagiarism), Theft, and Collusion. Compared with the medical sciences, the social sciences in general and education specifically, lag behind in terms of critical attention being paid to the problem of plagiarism, the peer review process and academic authorial ethics. The ubiquity of the Internet, the ever intensifying demand to publish or perish, and maybe, a general shift in perceptions of what constitutes 'bad' plagiarism and collusion which challenge traditional notions of what constitutes authorial honesty, mean that the time may be ripe for a consideration by academic writers and journal editors of how they regard and deal with the whole area. This paper makes an early contribution to the discussion.

Smith, E., & Williams-Jones, B. 2012. Authorship and Responsibility in Health Sciences Research: A Review of Procedures for Fairly Allocating Authorship in Multi-Author Studies. *Science & Engineering Ethics, 18(* 2), 199-212. doi:10.1007/s11948-011-9263-5
In this paper, the authors review arguments presented in the ethics and health science literatures, and the policies or guidelines proposed by learned societies and journals, in order to explore the link between author contribution and responsibility in multi-author multidisciplinary health science publications. The authors then critically examine the various procedures used in the field to help researchers fairly allocate authorship.

Solomon, J. 2009. Programmers, professors, and parasites: Credit and co-authorship in computer science. *Science and Engineering Ethics*. 15(4): 467-489. doi: 10.1007/s11948-009-9119-4
This article presents an in-depth analysis of past and present publishing practices in academic computer science to suggest the establishment of a more consistent publishing standard. The author compares publishing practices in computer science with other scientific fields, and concludes with a list of basic principles that should be adopted in any computer science publishing standard. He claims this would

contribute to the reliability and scientific nature of academic publications in computer science.

Tarnow E. 1999. The authorship list in science: Junior physicists' perceptions of who appears and why. *Science and Engineering Ethics* 5: 73-88.

A questionnaire probing the distribution of authorship credit was given to postdoctoral associates "postdocs" in order to determine their awareness of the professional society's ethical statement on authorship, the extent of communication with their supervisors about authorship criteria, and the appropriateness of authorship assignments on submitted papers. Results indicate a low awareness of the professional society's ethical statement and that little communication takes place between postdocs and supervisors about authorship criteria. A substantial amount of authorship credit given to supervisors and other workers is perceived by the postdocs to violate the professional society's ethical statement.

Tarnow E. 2002. Coauthorship in physics. *Science and Engineering Ethics* 8(2): 175-190. Doi: 10.1007/s11948-002-0017-2

In a large and detailed survey on the ethics of scientific coauthorship, members of the American Physical Society (APS) were asked to judge the number of appropriate coauthors on his or her last published paper. Results show that the first or second coauthor are more appropriate than later coauthors about whom there is equal and considerable doubt. The probability of any third and subsequent coathors being judged as inappropriate is 23% for the APS guideline, 67% for the tighter guideline of the International Committee of Medical Journal Editors, 59% if the guideline requires “direct contributions to scientific discovery or invention”. Only 3% of respondents report having personally rejected an undeserving scientist who expected to be an author on the last published paper. Respondents seem to be divided into two non-overlapping populations—those who report no inappropriate coauthorship and those who have a more graduated view.

Teixeira da Silva, J. A., & Dobránszki, J. 2016. How Authorship is Defined by Multiple Publishing Organizations and STM Publishers. *Accountability in Research: Policies & Quality Assurance, 23(2), 97-122. doi:10.1080/08989621.2015.1047927*

This article examines the definitions of authorship as defined by four publishing organizations—the Committee on Publication Ethics (COPE), the Council of Scientific Editors (CSE), the International Committee of Medical Journal Editors (ICMJE), and World Association of Medical Editors (WAME)—and 15 science, technology, and medicine (STM) publishers. The objective is to understand whether there is

consistency among definitions. Five of these STM publishers rely specifically on the ICMJE definitions of authorship, while 12/15 are COPE members. The clarity, logic, realism, feasibility, and enforceability of these definitions will be discussed. Our analysis reveals that authorship definitions are inconsistent among the 15 STM publishers. Scientists have the inherent right to determine who is an author of an article according to the ethical guidelines of their institutes, but these may differ from the guidelines indicated by publishers, while editors and publishers have the right to verify authorship.

Wager, E. (2009). Recognition, reward and responsibility: Why the authorship of scientific papers matters. *Maturitas* 62:109-112
Author lists should inform readers about who did a piece of research. If authorship attribution is incorrect, the wrong people may take the credit or the blame. Correct authorship of medical papers is also important because the research and publication process relies on trust.

Wagner, E. et al. 2009. Science editors' views on publication ethics: Results of an international survey. *Journal of Medical Ethics*. 356: 348-353.
Results of a survey of science journal editors looking at the severity and frequency of sixteen different breaches of publication ethics that they see at their journals.

Journal Articles on Peer Review and Editorial Ethics

Armstrong, S.J. 1997. Peer review for journals: Evidence on quality control, fairness, and innovation. Science and Engineering Ethics. 3(4): 63-84. doi: 10.1007/s11948-997-0017-3
This paper reviews the published empirical evidence concerning journal peer review published since 1975. The author concludes that these studies show that peer review improves quality, but its use to screen papers has met with limited success. Current procedures to assure quality and fairness seem to discourage scientific advancement, especially important innovations, because findings that conflict with current beliefs are often judged to have defects. Editors can use procedures to encourage the publication of papers with innovative findings such as invited papers, early-acceptance procedures, author nominations of reviewers, structured rating sheets, open peer review, results-blind review, and in particular, electronic

publication.

Atkinson M, 2001. “Peer review" culture. *Science and Engineering Ethics* . 8(1): 193-204. doi: 0.1007/s11948-001-0040-8
The article looks at some of the factors contributing to the problem of the relatively high incidence of unsatisfactory review decisions in the peer review process.

Baldwin W, and B. Seto. 1997. Peer review: Selecting the best science. Science and Engineering Ethics. 31: 11-17.
The major challenge facing today's biomedical researchers is the increasing competition for available funds. The competitive review process, through which the National Institutes of Health NIH awards grants, is built upon review by a committee of expert scientists. The NIH is firmly committed to ensuring that its peer review system is fair and objective.

Bohannon, J. 2013. Who's Afraid of Peer Review? *Science, 342* 61(54), 60-65. doi:10.1126/science.342.6154.60
Documents a spoof paper concocted by Science *that revealed there is little or no review done by many open-access journals before articles are published.*

Cain J, 1999. Why Be My Colleague's Keeper? Moral Justifications for Peer Review. *Science and Engineering Ethics*. 5: 531-540. doi: 10.1007/s11948-999-0053-2
Cain offers a justification for scientists to do peer review, and discusses how the motivation for being a peer reviewer can be based on self-interest or on benefits for the scientific community as a whole.

Cicchetti, D.V. 1997. Referees, editors and publication practices: Improving the reliability and usefulness of the peer review process. *Science and Engineering Ethics* 3(1):51-62. doi: 10.1007/s11948-997-0016-4
The article discusses problems inherent in the peer review process and looks at possible ways in which to improve its reliability.

Fletcher RH, Fletcher SW. 1997. Evidence for the effectiveness of peer review. *Science and Engineering Ethics* 3(1): 35-50. doi: 10.1007/s11948-997-0015-5

The authors give a survey of the research into the effectiveness of peer review, including studies examining the blinding of reviewers to authors and the quality of the review process. They conclude that peer review needs further study or it might be abandoned.

**Foo, J. Y. A. 2013. Implications of a Single Highly Cited Article on a Journal and Its Citation Indexes: A Tale of Two Journals. *Accountability in Research: Policies & Quality Assurance, 20(*
2), 93-106. doi:10.1080/08989621.2013.767124

Citation indexes such as journal impact factor are increasingly used to evaluate the quality of a scholarly work and/or assess one's scientific contributions. However, this simplistic approach has increasingly been refuted with publication gaming and incorrect applications to rank one's academic significance. These indexes are being game not only by researchers but also subtly by journal editors. . In this article, the focus will be on the motivations, impacts, and lessons learnt from how single highly cited article can have on the reactions from and the reputation of two academic journals:Folia Phoniatrica et LogopaedicaandActa Crystallographica Section A.

Graff, Chris et al. 2007. Best practices on publication ethics: a publisher's perspective. International Journal of Clinical Practice 61Supl152 :1-26. doi: 10.1111/j.1742-1241.2006.01230.x

These Best Practice Guidelines on Publication Ethics describe Blackwell Publishing's position on the major ethical principles of academic publishing and review factors that may foster ethical behavior or create problems. The aims are to encourage discussion, to initiate changes where they are needed, and to provide practical guidance, in the form of Best Practice statements, to inform these changes. Blackwell Publishing recommends that editors adapt and adopt the suggestions outlined to best fit the needs of their own particular publishing environment.

Fox, Mary Frank. 1994. Scientific misconduct and editorial and peer review processes. *The Journal of Higher Education* 653: 298-309. Special Issue: Perspectives on Research Misconduct. doi: 10.2307/2943969

This paper considers moral justifications for peer review. The author argues that a wider notion of "interest' permits the self-interest approach to justify not only submitting one's own work to peer review but also removing oneself momentarily from the production of primary knowledge to serve as a rigorous, independent, and

honest referee.

Godlee F. 2002. Making reviewers visible: Openness, accountability and credit. JAMA 28721: 2762-2765. doi:10.1001/jama.287.21.2762.
Anonymity for peer reviewers remains the overwhelming norm within biomedical journals. While acknowledging that open review is not without challenges, this article presents 4 key arguments in its favor: (1) ethical superiority, (2) lack of important adverse effects, (3) feasibility in practice, and (4) potential to balance greater accountability for reviewers with credit for the work they do.

Harriman, S., & Patel, J. 2014. Text recycling: Acceptable or misconduct? *BMC Medicine, 12*1, 103-106. doi:10.1186/s12916-014-0148-8
Text recycling, also referred to as self-plagiarism, is the reproduction of an author's own text from a previous publication in a new publication. Opinions on the acceptability of this practice vary, with some viewing it as acceptable and efficient, and others as misleading and unacceptable. In light of the lack of consensus, journal editors often have difficulty deciding how to act upon the discovery of text recycling. In response to these difficulties, we have created a set of guidelines for journal editors on how to deal with text recycling. In this editorial, we discuss some of the challenges of developing these guidelines, and how authors can avoid undisclosed text recycling. The guidelines can be found here: http://media.biomedcentral.com/content/editorial/BMC-text-recycling-editorial_guidelines.pdf

Hemmat Esfe, M., Wongwises, S., Asadi, A., & Akbari, M. 2015. Fake Journals: Their Features and Some Viable Ways to Distinguishing Them. *Science & Engineering Ethics,* 21(4), 821-824. doi:10.1007/s11948-014-9595-z
The authors of this paper aim to discuss the fake journals and their advertisement and publication techniques. These types of journals mostly start and continue their activities by using the name of some indexed journals and establishing fake websites. The fake journals and publishers, while asking the authors for a significant amount of money for publishing their papers, have no peer-review process, publish the papers without any revision on the fake sites, and put the scientific reputation and prestige of the researchers in jeopardy. Finally, the authors present some viable techniques in order for researchers and students to identify these journals.

Kostoff, R.N. 1997. The principles and practices of peer review. *Science and Engineering Ethics* 3(1): 19-34. doi: 10.1007/s11948-997-0014-

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This article describes some of the major principles and practices of peer review, focusing especially on the review of proposed and ongoing programs in federal agencies. The paper also describes a number of problems that often arise in the peer review process, and gives examples of these problems in proposed and existing programs in place in some federal agencies. The article also outlines some best practices in developing a successful peer review process.

Louis, Karen Seashore, Janet M. Holdsworth, Melissa S. Anderson, and Eric C. Campbell. 2008. Everyday ethics in research: Translating authorship guidelines into practice in the bench sciences. *Journal of Higher Education* 79(1): 88-112. doi:10.1353/jhe.2008.0002

Peer-reviewed papers are the major currency in the realm of science. Without an appropriate number of publications in high-quality journals, scientists do not get university positions, are not promoted, and fail to get grants to fund their research. Decisions made about authorship are not always straightforward, as accepted practice sometimes conflicts with other ethical guidelines or "rules of thumb," such as fairness, reciprocity, and sponsorship. This article examines how and why "highly productive" life scientists in universities make these important decisions. The findings illuminate the idiosyncratic nature of authorship decisions, the important role that context plays in scientists' decision-making about authorship, and how authorship often is a commodity exchanged among scientists. Concluding comments focus on the significance of studying "everyday ethics" and their potential impact on disciplines and higher education institutions.

Macrina, F. L. 2011. Teaching Authorship and Publication Practices in the Biomedical and Life Sciences. *Science & Engineering Ethics, 17(* 2), 341-354. doi:10.1007/s11948-011-9275-1

Discusses strategies for teaching about scientific authorship across biomedical and life science disciplines.

Moustafa, K. 2015. Blind Manuscript Submission to Reduce Rejection Bias? *Science & Engineering Ethics, 21*2, 535-539. doi:10.1007/s11948-014-9547-7

The author discusses the importance of blind submissions to reduce rejection biases at the editorial board levels and initial stage of paper assessment. He mentions that submissions can be rejected by peers on the basis of author's identity, his previous work and gender. He further mentions that blind peer-review enhances the scientific integrity and impartiality.

Resnick, David, Christina Gutierrez-Ford and Shyamal Peddada. 2008. Perceptions of ethical problems with scientific journal peer review: An exploratory study. *Science and Engineering Ethics* 143: 305-310. doi: 10.1007/s11948-008-9059-4

This article reports the results of a survey of researchers at a government research institution looking at their perception of ethical issues that exist in regard to peer review. The largest number of researchers surveyed believed that incompetent review was the largest problem. Bias in the review system was the second largest problem seen. The authors recommend that other investigators follow up this research with this exploratory study on the ethics of peer review.

Resnik, D. B., Peddada, S., & Brunson, J. W. 2009. Research Misconduct Policies of Scientific Journals. *Accountability in Research: Policies & Quality Assurance, 16(*5), 254-267. doi:10.1080/08989620903190299

The purpose of this study was to gather information on the misconduct policies of scientific journals. The authors found that more than half of scientific journals have developed misconduct policies, but that most of these policies do not define research misconduct and most of these policies were not generated by the journal.

Resnik, D. B., Tyler, A. M., Black, J. R., & Kissling, G. 2016. Authorship policies of scientific journals. *Journal of Medical Ethics, 42(*3), 199-202. doi:10.1136/medethics-2015-103171

This study analyzed the authorship policies of a random sample of 600 journals from the Journal Citation Reports database. Journals from the biomedical sciences and social sciences/humanities were more likely to have an authorship policy than journals from the physical sciences, engineering or mathematical sciences. Among journals with a policy, the most frequent type of policy was guidance on criteria for authorship (99.7%); followed by guidance on acknowledgments (97.3%); requiring that authors make substantial contributions to the research (94.7%); requiring that authors be accountable for the research as a whole (84.8%); guidance on changes

in authorship (77.9%); requiring that authors give final approval to the manuscript (77.6%); requiring that authors draft or critically revise the manuscript (71.7%); providing guidance on corporate authorship (58.9%); prohibiting gift, guest or ghost authorship (31.7%); requiring authors to describe their contributions (5.3%); limiting the number of authors for some types of articles (4.0%) and requiring authors to be accountable for their part in the research (1.1%). None of the policies addressed equal contribution statements. Journals that do not have authorship policies should consider adopting or developing ones.

Rockwell, Sarah. 2005. Ethics of peer review: a guide for manuscript reviewers. Yale University, U.S. Office of Research Integrity.
An essay with accompanying case studies by Dr. Sarah Rockwell of Yale University. Essay gives an overview of some of the main ethical issues faced by peer reviewers.

Roohi, E., & Mahian, O. 2015. Some Opinions on the Review Process of Research Papers Destined for Publication. *Science & Engineering Ethics, 21(*3), 809-812. doi:10.1007/s11948-014-9549-5
This paper discusses the peer review process in journals that publish research papers purveying new science and understandings (scientific journals). Different aspects of peer review including the selection of reviewers, the review process and the decision policy of editor are discussed in details. Here, the pros and cons of different conventional methods of review processes are mentioned. Finally, a suggestion is presented for the review process of scientific papers.

Spier, R.E. 2002. Peer review and innovation. Science and Engineering Ethics. 81: 99-108.
Two important aspects of the relationship between peer review and innovation includes the acceptance of articles for publication in journals and the assessment of applications for grants for the funding of research work. The author argues that innovative papers are not stifled in the publication process by peer review, but that the situation differs in the area of grants. In the case of grants, refusal necessarily stops possible innovative research. The author suggests that funding organizations may wish to set aside some money for promising innovative projects, and that the peer review process may need to be modified in these cases.

Stamps, Arthur E. 1997. Using a dialectical scientific brief in peer review. Science and Engineering Ethics. 31: 85-98.
This paper presents a framework that editors, peer reviewers, and authors can use to identify and efficiently resolve disputes that arise during peer review in scientific journals. Called a scientific dialectical brief, this framework helps authors and

reviewers format their differences into specific assertions, and provide support for these assertions. The types of support to be used include empirical data, reasoning, speculation, feelings and status. It is suggested that the scientific dialectical brief format can streamline the review process by facilitating rapid differentiation between stronger and weaker support, so that valuable time can be focused on the better-substantiated claims.

Teixeira da Silva, J. A., & Dobránszki, J. 2015. Problems with Traditional Science Publishing and Finding a Wider Niche for Post-Publication Peer Review. *Accountability in Research: Policies & Quality Assurance, 22(* 1), 22-40. doi:10.1080/08989621.2014.899909

Discusses some ethical issues that exist in the peer review process and how post-publication peer review can be an efficient compliment to the more traditional system of peer review and he lp renew trust in scientific findings by helping to correct the literature.

Vasconcelos, S., & Roig, M. 2015. Prior Publication and Redundancy in Contemporary Science: Are Authors and Editors at the Crossroads? *Science & Engineering Ethics, 21(*5), 1367-1378. doi:10.1007/s11948-014-9599-8

Discusses the changing view of prior publication and redundancy over the last 15 years in scientific publishing and urges the need for developing clear guidelines and changing the current publication system to reflect these new views.

Washburn, Jason. 2008. Encouraging research collaboration through editorial and fair authorship: A model policy. *Ethics & Behavior* 181: 44-58. doi: 10.1080/10508420701712917

Increased collaboration is likely to contribute to the growing trend of multi-investigator projects, multiple-authored publications, and the subsequent conflicts regarding authorship credit and order. Recommendations and guidance on determining authorship credit and order are available in the literature; however, few concrete tools are available to assist in determining authorship credit and order. A model policy on authorship is presented. The model policy was derived from recommendations published in the literature, in ethical standards, and in the editorial policies of both psychological and the biomedical fields. The model policy can be adopted by academic and clinical organizations, and is a useful tool for preventing authorship conflicts and encouraging collaboration in clinical research.

Wilson J.R. 2002. Responsible authorship and peer review. Science and

Engineering Ethics 8: 155-174.
In this article the basic principles of responsible authorship and peer review are surveyed, with special emphasis on a guidelines for refereeing archival journal articles and proposals; and b how these guidelines should be taken into account at all stages of writing.

Journal Articles on Retraction

Foo, J. Y. A., & Tan, X. J. A. 2014. Analysis and Implications of Retraction Period and Coauthorship of Fraudulent Publications. *Accountability in Research: Policies & Quality Assurance, 21*
(3), 198-210. doi:10.1080/08989621.2013.848799
Studies have indicated that the number and frequency of fraudulent publications being retracted are not subsiding even with greater awareness of such incidents in the recent decades. In this study, the trends of retraction period, number of citations and coauthors of 5 selected researchers who had ≥ 15 fraudulent publications retracted were analyzed. The authors found evidence for the use of coauthors as a strategy for publishing fraudulent work and a potential approach to tighten coauthorship are discussed.

Grens, K. 2015. Self Correction: What to do when your publication is fatally flawed. *The Scientist.*
Discusses the proper way of retracting a publication when you realize there is a flaw in the study, and reasons why many researchers fail to do so. Article also discusses options for fixing publications beyond retracting papers.

Madlock-Brown, C., & Eichmann, D. 2015. The lack of Impact of Retraction on Citation Networks. *Science & Engineering Ethics, 21*, 127-137. doi:10.1007/s11948-014-9532-1

Article retraction in research is rising, yet retracted articles continue to be cited at a disturbing rate. This paper presents an analysis of recent retraction patterns, with a unique emphasis on the role author self-cites play, to assist the scientific community in creating counter-strategies.

Williams, P., & Wager, E. 2013. Exploring Why and How Journal Editors

Retract Articles: Findings From a Qualitative Study. *Science & Engineering Ethics, 19*(1), 1-11. doi:10.1007/s11948-011-9292-0

Editors have a responsibility to retract seriously flawed articles from their journals. However, there appears to be little consistency in journals' policies or procedures for this. In a qualitative study, we therefore interviewed editors of science journals using semi-structured interviews to investigate their experience of retracting articles. We identified potential barriers to retraction, difficulties in the process and also sources of support and encouragement. Our findings have been used as the basis for guidelines developed by the Committee on Publication Ethics.

Contributor(s)

Jason Borenstein

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Topics

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