



Best Practices in Scientific Publishing

Recommendations for authors, issued on 20 June 2017

Assembled by (Czech version): Michal Petr (Research & Development Office of the Rector's Office, Masaryk University)

Comments by (Czech version): Petr Dvořák, Pavel Plevka, David Šmahel, Research & Development Office of the Rector's Office

Translation: David Konečný

Index

1	Preface.....	2
2	Masaryk University Academic and Professional Employee Code of Ethics.....	2
3	Best Practices in Scientific Publishing.....	3
3.1	Authorship.....	4
3.1.1	Who is an author?	4
3.1.2	Order of authors.....	5
3.1.3	General recommendations.....	5
3.2	Affiliations.....	6
3.2.1	Affiliations policy	6
3.3	What to avoid	7
3.3.1	Unethical or undesirable publication strategies	7
3.3.2	Activities reducing the credibility of scientific publishing	8
4	What to do if you encounter inappropriate publishing practices.....	10
5	Reporting of research and artistic activity results at MU.....	10
6	Related documents	11
7	Literature and sources.....	11

1 Preface

These recommendations are issued in accordance with the Masaryk University Academic and Professional Employee Code of Ethics which sets out ethical principles applicable to the scientific activities of MU employees.

Publications constitute the most important means of communication in science and, at the same time, comprise a kind of scientific “commodity”. Ethical conduct is thus a requirement which must be met by each and every author and reviewer of a scholarly text. At the same time, it contributes to the development of an institution's image while highlighting the integrity of its research. A scientist who employs controversial or unethical publication practices is thus exposing him or herself to the risk of **degrading the value of his or her scientific activity while also potentially harming his or her institution**. Although such actions cannot be avoided by simply publishing a regulation, an institution is expected to issue a guideline specifying practices it will not tolerate of its employees.

The outcomes of adopted publication practices and strategies may be of great importance with respect to careers, personnel and financial issues, scientometry, etc., and it may sometimes be difficult to distinguish between unethical approaches and pure pragmatism. However, this document does not aim to disrupt the freedom of academic research and publishing in any way. The academic community includes many authors, from the very experienced to novices. For many scientists, these principles are thus a matter of course. A number of potential negative phenomena may be the outcome of poor awareness, local customs or external influences. However, such arguments cannot be used in defence of unethical scientific and publishing practices.

Best Practices in Scientific Publishing thus constitutes a declaration of MU's attitudes in the area of scientific publishing ethics and, at the same time, functions as a set of recommendations and instructions specifically targeting newly minted researchers and doctoral candidates. By issuing these guidelines, Masaryk University highlights its acceptance of the principles of internationally recognized best practices in scientific publishing.

2 Masaryk University Academic and Professional Employee Code of Ethics

Best Practices in Scientific Publishing build on general principles enshrined in the [Masaryk University Academic and Professional Employee Code of Ethics](#) and the [MU Code of Research Ethics](#) (links to authorized sections of the IS MU). The following principles are specifically relevant to research activities (abridged):

An employee always prefers and promotes the concept of research and development – i.e. its orientation, implementation and application – as a means of elevating the level of public knowledge and as an active self-education resource dedicated to supervising and contributing to the quality of education provided to students and young scientists.

An employee:

- *considers the publication of research and development results a standard and self-evident procedure and engages in publication activities in accordance with the standard practices of a given field;*¹
- *assumes responsibility for the quality and authenticity of research and development activity results;*
- *rejects plagiarism, falsification and misuse of results or retention of results in the case of publicly funded research and development;*²
- *maintains an objective approach when assessing his/her share of authorship and the shares of others when reporting authorship, especially when assessing creative contributions to the publication of results and evaluating the quality and scope of contributions to the execution of the research itself;*
- *critically assesses the contribution of the distribution of results – or submission of modified or supplemented research and development results – into several publications.*

3 Best Practices in Scientific Publishing

Masaryk University promotes maximum transparency in scientific publishing as long as doing so does not infringe e.g. trade secrets or copyright. In many fields, best practices prescribe that manuscripts be subject to an internal review process or consulted with external experts. In addition to improving the quality of the manuscript, this practice also provides evidence of the authors' openness to the scientific community.

The development of a scientific text should comply with the principles of reliability, honesty, responsibility, balance, originality and transparency.³ These principles are generally enshrined in guidelines issued by all high-quality publishers.⁴ Since some of these are also mentioned in the Code of Ethics, a summary should be sufficient:

- Authors should publish research results in a clear and honest manner, refraining from data manipulation or falsification.
- Authors should ensure that the published text is original, has not been published elsewhere⁵ and cites all utilized sources and relevant previous research.
- All authors assume responsibility for the published text.
- Authorship, as specified in the text, truthfully reflects the extent of an individual's contribution to the published work.

¹ Valid unless otherwise specified by rules applicable to a given research activity.

² The Code of Ethics refers to all research types, i.e. it is not limited to publicly funded research.

³ Transparency refers to e.g. the traceability of primary data and the repeatability of conducted research.

⁴ See e.g.: <https://www.elsevier.com/authors/journal-authors/policies-and-ethics>.

⁵ With the exception of e.g. translations of the text into a foreign language and inclusion in anthologies and texts properly citing all references.

MU strongly recommends that its authors utilize a standardized affiliation format for their publications (see [chapter 3.2](#)) to ensure maximum visibility, accuracy and completeness of publication data for bibliometric and evaluation purposes.

3.1 Authorship

Authorship must properly reflect an individual's contribution to a publication. It denotes his or her significant scientific or intellectual share in the development of such a publication. An author thus takes public responsibility for the text of a study or for a relevant part thereof. Reading a publisher's instructions for authors is always recommended. These instructions generally also include references to ethical principles.

While authorship rules may appear clear and simple to understand and follow in theory, their implementation in practice tends to attract contradictory and even unethical conduct. Relatively common phenomena include e.g. the omission of co-authors as a result of personal antipathies, changes to the order authors are listed in, reciprocal attribution, etc. Authors who behave unethically with respect to authorship issues frequently tend to defend their conduct as adherence to local customs or an unwillingness to change ingrained behaviour.

Observing the following best practices ensures maximum accuracy with respect to scientific publication data for database-related, reporting and bibliometric purposes, thereby increasing the visibility of bibliometric data as well as the impact of Masaryk University's outputs – for the greater benefit of its authors.

3.1.1 Who is an author?

Based on internationally valid best practices, an author must meet **all of the following criteria:** ⁶

- Substantial contribution to the achievement of results.
- Substantial contributions to the conception or design of the work and interpretation of results.
- Drafting the manuscript of the work or revising it critically for important intellectual content.
- Final approval of the version of the text to be published.
- Responsibility for a work or a relevant part thereof; responsibility for the correctness, accuracy and completeness of published research results.

Persons who fail to meet these criteria should not be listed as authors. Persons who have not contributed significantly to the scientific content of a work should be acknowledged, i.e. not included in the list of authors, an option offered by most journals. This generally applies to the following activities or situations:

- Securing funding, routine technical assistance,⁷ administration.

⁶ <http://icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>

- Data collection not requiring scientific expertise, routine work tasks or minor assistance which does not have a significant impact on the scientific content of the publication (i.e. contributorship).
- **Guest, gift or honorary authorship** or authorship prescribed from a position of authority (senior scientist, department head, supervisor, etc.). Authorship reciprocally gifted in exchange also leads to artificially increased publication performance.

On the other hand, it is not permissible to exclude persons from the list of authors who otherwise significantly contributed to the design of the study:

- Students.
- Industrial partners and professional copywriters responsible for composing a scholarly article, e.g. in fulfilment of an order commissioned by the industry (i.e. **ghost authorship**).

3.1.2 Order of authors

The order authors are listed in can strongly reflect local customs and habits typical of a given field. Regardless of such considerations, the list of authors still commonly reflects the extent and importance of their contributions to the scholarly content and design of a publication. In some fields authors may also be listed in alphabetical order or in accordance with a specific ordering scheme. Such exceptions aside, the following recommendations are derived from common practice. If customary in a given field, the author who contributed most to achieving the results and who at least contributed to the preparation of the manuscript should be listed first. The order of authors should be approved by all publication authors, ideally prior to its completion. In case a publication has more than one author, a corresponding author responsible for handling the review process must be designated.

In view of common expectations and frequent practices, adherence to the following guidelines is recommended:

- In most fields the author who contributed most to achieving the published results should be listed first.
- The order of authors should reflect the general extent of their contribution to the text of the publication.
- In accordance with best practices in a given field, the corresponding author is usually listed either first or last.

3.1.3 General recommendations

- Authorship should be discussed during the project preparation stage and may be subsequently renegotiated or modified throughout the duration of the project.

⁷ Technical assistance not requiring highly specialized expertise necessary for conducting a study (typically e.g. data processing using commonly available resources and routine software).

- A number of unpleasant situations may be avoided if scientists agree on the final form of the publication, especially with respect to the order of authors and the choice of a suitable medium (i.e. journal), as soon as research is completed and before work begins on the manuscript itself. In some cases, a written agreement may be appropriate.
- All authors should review and approve the final version of the publication before submitting it to the review process. This step is required by many journals.
- The contributions of individual authors may be mentioned directly in the text, e.g. in the following manner: *“AB is responsible for the design and content of the study and for selecting the utilized methodology. CD performed the experiments, interpreted the results and helped draft the manuscript.”*

3.2 Affiliations

Providing standardized and correct affiliation information ensures not only the legitimate interconnection of achieved research results with a given institution but also the correct and consistent identification of the author(s) and the institution with respect to the research results and thus their increased visibility while also providing reliable data for bibliometric and research evaluation purposes. Affiliations are also transferred to electronic databases (Web of Science, SCOPUS). **Like in the case of authorship, affiliations must also reflect the actual contributions of individual institutions to achieved research results (including in the case of shared affiliations).**

Every author conducting research at MU and publishing at MU must affiliate **Masaryk University** as his or her home research institution. This obligation also applies to short-term contracts and internships. In the absence of affiliation with MU, the result cannot be attributed to Masaryk University. In the case of a shared affiliation, affiliations must be listed as separate addresses. An incorrectly formatted affiliation might thus look like this: *“Academy of Sciences of the Czech Republic and Faculty of Science of Masaryk University, Brno”*. Instead, a correctly formatted affiliation should look like this:

John Smith^{1,2}

¹*institution 1*

²*institution 2*

3.2.1 Affiliations policy

Instructions for authors issued by individual publishers generally specify an affiliations format. Information may be listed either beginning with the smallest unit or in reverse, i.e. as institution, faculty, unit. In case no affiliations format is specified by the published, it is recommended to list the smallest unit first, e.g. as follows:

Department of Chemistry, Faculty of Science, Masaryk University, Kotlarska 2, Brno.

Always provide a full **affiliation** (unit, faculty, institution, address). In case this is not possible, (e.g. in case the number of characters is severely limited), the name of the **institution (Masaryk University)**

has top priority. An example of an incorrect affiliation is e.g. “Department of Pathological Physiology, Brno, Czech Republic”, which fails to identify the Faculty of Medicine of Masaryk University.

In case an address is required, it is best to include the faculty's correspondence address. Be sure to use a **unified and above all correct unit designation**. Utilize a template featuring one full and one truncated affiliation listing, both in English and Czech. This approach greatly simplifies further work with publications in bibliographic databases and other systems. Affiliation formatting and address formats are usually subsequently converted and standardized by the Web of Science.

Example affiliations:

Department of Archaeology and Museology, Faculty of Arts, Masaryk University, Arna Nováka 1, Brno.

Dept Archaeol & Museol, Fac Arts, Masaryk Univ, Brno.

3.3 What to avoid

A number of existing publication practices are considered contradictory or completely inadmissible with respect to generally accepted best practices. Masaryk University strongly recommends that such practices be avoided. MU thus instructs its authors to **reject in particular**:

- Purely pragmatic publishing strategies which are primarily not designed to spread scientific knowledge but to artificially reinforce personal credit or other personal interests (see [chapter 3.3.1](#)).
- Activities reducing the credibility of the scientific publishing system, including poor quality peer review procedures (see [chapter 3.3.2](#)).
- Gifting authorship to persons not considered authors in accordance with established best practices or, on the other hand, omitting authors who have significantly contributed to the development of a given work (see [chapter 3.1.1](#)).
- Plagiarism (see the MU Code of Ethics).

3.3.1 Unethical or undesirable publication strategies

Undesirable strategies include the **overproduction of relatively brief texts of relatively low quality** designed to increase the number of publications. In addition to significantly contributing to the deterioration of the quality and reputation of a given field, overproduction also distorts scientometric data relevant to authors' careers in science as well as data associated with personnel and financial areas. In the Czech environment, this kind of pragmatic behaviour was unfortunately partially supported by the national evaluation framework valid until 2016.⁸

A similar undesirable strategy is the so-called "salami slicing" approach. It is a purposeful division of a single article into several articles, each addressing a research question only from one point of view in

⁸ A new assessment methodology is being introduced as of the year of writing (2017). Its principles should no longer encourage the overproduction of research results.

order to artificially increase the number of outputs (i.e. this is not a division of a complex output due to character limits imposed by the publisher).

Artificially increasing the number of responses to one's work is another unacceptable practice, one which may take on several different forms. In some cases, an author's intentional activity may result in e.g. higher citation rates which may in turn affect scientometric data or even career and personnel-related issues. Strategies frequently include consciously designing and purposefully building a **closed network of authors or journals dedicated to mutually citing each other's works**. This results in extremely high self-citation rates. These unfair practices are relatively easy to detect using bibliometric analyses.

In other cases, a high cross-citation rate among articles within a journal or within a closed group of journals may result in effects unintended by the author but rather associated with **unethical practices employed by the publisher**. Warning signs include the publisher requesting the author to cite articles published in a specific journal or to cite other articles in a given area, e.g. published in a thematic issue of the journal in question. Frequently detectable using common sense, these requests and other suspicious activities should always be rejected by the author; likewise, any future collaboration with such publishers should be considered very carefully. In addition to being "requested" by a journal as mentioned above, citations may also be prescribed by colleagues and superiors abusing their leadership positions. In this case, as in some of the other above mentioned situations, it is difficult to establish a clear boundary between ethical and unethical behaviour; however, such requests are generally to be considered unethical as they may result in an artificial increase in citation rates.

3.3.2 Activities reducing the credibility of scientific publishing

This topic is primarily associated with the widespread phenomenon of the so-called predatory journals which exploit the Open Access model for profit at the expense of scientific quality, i.e. by failing to **provide a peer review procedure of suitable quality**. Paying a publication fee usually results in the direct publication of a submitted text in such a predatory journal – regardless of its quality. Some book publishers behave in a similar manner. By not including a review process verifying the scientific quality of a submitted manuscript, these publishers issue books either for a fee or even free of charge; some publishers specifically target recent graduates and diploma thesis authors (e.g. Lambert Academic Publishing). In many cases, such authors fall victim to their own ignorance. This argument, however, cannot be interpreted as tolerance of concessions to scientific ethics.

Predatory journals are driven by authors' motivation to **artificially increase their publication performance**. As long as there is sufficient interest in such forms of publishing, predatory publishers and journals will be able to further develop, pushing out certified high-quality publishers in the process. This approach could eventually lead to a **fatal decline in the credibility of the entire scientific publishing system** and to the loss of the moral credit of affected authors and institutions, regardless of how many otherwise legitimate publications these authors have produced.

How to identify predatory publishers/journals⁹

Please bear in mind that the below mentioned features do not necessarily mean that a given medium is a predatory journal. However, they do constitute warning signs which should not be disregarded.

1. Email spam – invitations to publish in a journal (often unknown to the author) or attend dubious conferences (often as keynote speaker), invitations to questionable or fictitious editorial boards. Predatory publishers also often employ so-called acquisition editors who actively search for potential authors (including the authors of Master's theses) and contact them using email spam.
2. Use of titles similar to those of reputable journals, use of spectacularly sounding titles (*World Journal of ...*, *International Journal of ...*, etc.) or use of overly generic titles (e.g. *International Journal of World Research*).
3. Non-existent, fictitious or insufficiently described review procedures; well-known researchers listed as editorial board members without their knowledge.
4. Suspiciously large number of works with a negligible impact on the development of scientific knowledge; large volumes of worthless text.
5. Extremely simple publication agreements; publication fee-oriented approach; promises of extremely rapid review or even immediate publication.
6. Failure to comply with publishing standards.
7. Insufficient contact information, limited to e.g. contact forms only.

Recommendations for authors

1. When selecting a publication medium, make use of the experience of your colleagues, expert communities and common sense: if something looks suspicious, proceed with the utmost caution.
2. Use certified channels, preferably WoS and SCOPUS-indexed journals or journals registered in ERIHplus.
3. Do not respond to unsolicited emails inviting you to publish (especially review articles) in a journal you have never heard of and know nothing about.
4. If you have any doubts about a publisher/journal, always search for whether the journal in question exhibits any of the above-mentioned characters typical of predatory publishers/journals.
5. If you have any doubts about a publisher/journal, you can also make use of the Think, Check, Submit service.¹⁰
6. In case you have selected an Open Access journal, verify it using the Directory of Open Access Journals, a respected listing of high-quality open access journals. An internal heuristics scheme designed to identify predatory journals is currently being prepared by the DOAJ. Verify whether your selected publisher is registered in the Open Access Scholarly Publishers Association.
7. If possible, avoid suspicious journals and publishers. There is always an alternative.

⁹ The full text of these guidelines is available at: <http://bit.ly/predatory-eng> (MU position on predatory publishers).

¹⁰ Available at: <http://thinkchecksubmit.org/>.

Masaryk University rejects any utilization of the predatory publisher system or any other such methods for enhancing its publication performance or artificially increasing citation rates.

4 What to do if you encounter inappropriate publishing practices

These recommendations do not stipulate sanctions or specify consequences arising from breaches of good practice. Throughout Masaryk University, decisions on potential consequences are thus made at the discretion of unit heads, research group leaders and faculty management.

Anyone encountering a violation of ethical principles or good practice must consider whether to disregard such activities (and thereby assume some of the responsibility) or instead report them (i.e. engage in whistleblowing). Masaryk University generally recommends that such issues are best addressed in preliminary discussions within a given unit or research group. Masaryk University also considers it unacceptable for either whistleblowers or persons not responsible for potential transgressions to face any penalties.

Potential disputes should be settled by a unit head or research group leader who thus assumes responsibility for the publication activities of unit employees or research group members. The MU Ethics Board functions as a support body for resolving ethics issues and potential disputes.

5 Reporting of research and artistic activity results at MU

For the university's internal as well as for national documentation purposes, records of research results are included in the [MU Information System](#) (hereinafter referred to as "IS MU"). Individual authors are personally responsible for providing a complete record of each work in the IS MU within three months of its full publication (i.e. this does not apply to e.g. advance online publication). In some cases, recording research results may be entrusted to an authorised MU faculty employee. In case a publication is indexed in the Web of Science, its publication number (UT WOS, Accession Number) must be filled out in order to facilitate proper communication with the IS MU.¹¹

Not only are complete, truthful and formally correct records required for national evaluation purposes, they are also necessary for interlinking different systems (Web of Science, SCOPUS, project records databases, etc.) which in turn helps Masaryk University's research results achieve maximum visibility and impact. When filling out records, it is also necessary to follow the guidelines and principles set out by financial support providers associated with a given research result.

¹¹ Assistance with recording research results in the IS MU is provided by faculty coordinators.

6 Related documents

Some of the above mentioned topics have been the focus of documentation previously issued by MU (several are referenced above). The following are previously developed documents focusing on publication activities at MU:

- **MU's Position on Predatory Publishing and Open Access Scholarly Journals**, issued on 7 January 2016 ([link](#))
- **Recommendations for working with and understanding bibliometric indicators**, issued in 2016 ([link](#))
- PLCH, Lukáš, Jiří KRATOCHVÍL, **Predátorské časopisy**, 2017. Educational materials issued by the Masaryk University Campus Library (in Czech). Available at: <https://kuk.muni.cz/vyuka/materialy/predatori/>.

7 Literature and sources

Committee on Publication Ethics (COPE). **How to handle authorship disputes: a guide for new researchers**. 2003. Available at: <http://publicationethics.org/files/2003pdf12.pdf>.

International Committee of Medical Journal Editors. **Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Ethical Considerations in the Conduct and Reporting of Research: Authorship and Contributorship**. Available at: <http://www.icmje.org/icmje-recommendations.pdf>.

International Committee of Medical Journal Editors. **Defining the Role of Authors and Contributors**. Available at: <http://icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>.

Scott-Lichter, D and the Editorial Policy Committee, Council of Science Editors. **CSE's White Paper on Promoting Integrity in Scientific Journal Publications, 2012 Update**. 3rd Revised Edition. Wheat Ridge, CO: 2012. Available at: http://www.councilscienceeditors.org/files/public/entire_whitepaper.pdf.

European Molecular Biology Laboratory. **Internal Policy No. 63: EMBL Publication Policy**. 2014. Available at: https://www.embl.de/services/library/open-access-information/BMC_pre_pay_scheme1/IP-63---EMBL-Publication-Policy.pdf

Wager, E., S. Kleinert. **Responsible research publication: international standards for authors. A position statement developed at the 2nd World Conference on Research Integrity, Singapore, July 22-24, 2010**. In: Mayer, T., N. Steneck (eds). **Promoting Research Integrity in a Global Environment**. Imperial College Press / World Scientific Publishing, 2011, 309-316.

University of Oxford. **Publication and Authorship**. Available at: <https://www.admin.ox.ac.uk/researchsupport/integrity/publication/>.

Edinburgh University Press. **Publication Ethics**. Available at: [http://www.eupublishing.com/customer-services/authors/publication-ethics](http://www.euppublishing.com/customer-services/authors/publication-ethics).

University of Leeds. **University publications policy**. 2015. Available at:
<https://library.leeds.ac.uk/university-publications>.

University of Adelaide. **Authorship Policy 2011/7485**. Available at:
<http://www.adelaide.edu.au/policies/3503/>.