

iPIC

inidependent Publishing Integrity Checking

**call-to-action: we need certified bodies independent of
publishers to safeguard publishing integrity**

by

Sven Lidin, University of Lund & President, The Royal Swedish Academy of Sciences (Stockholm, Sweden)

Dan Larhammar, Uppsala University, former President, The Royal Swedish Academy of Sciences (Sweden)

Gerd Gigerenzer, Max-Planck Institute of Human Development (Germany), Vice president, European Research Council (ERC)

Bernhard A. Sabel, Otto-v.-Guericke University of Magdeburg & Sciii Foundation gGmbH (Germany)

Contact: office@sciii-it.org

I. Introduction

1. Academic publications are a critical and shared heritage of humankind and their integrity and accessibility should be preserved. The “Stockholm Declaration” for the “Reformation of Science Publishing” has recently drawn attention to a number of concerns in a reputation economy of science and technology and its current science publishing infrastructures (Sabel and Larhammar 2025). It calls for academic incentive systems that reward quantity rather than quality, a reduction in the staggering growth of commercial publishing at unreasonable expense to taxpayers and funding organizations, and measures to address the concerning and growing scale of fraudulent publications and their increasingly automated production by fraudsters such as commercial “paper mills” and predatory journals (Abalkina et al. 2025).
2. This development is concerning because it undermines the basis of trustworthy science in all areas of education, research, and technological development. Science stakeholders - research and education institutions, funders, academies and other learned organizations - need to work together to form an international alliance capable of addressing the growing problem of scientific fraud quickly and effectively.
3. While reformation of academic incentive systems is complex and can only take place gradually, our proposal focuses on the prevention of fraudulent publishing that can be implemented immediately. This can be achieved by establishing quality control systems that are fully *independent* of publishers. Drawing on the principle of

independent safety and quality assurance used in many other sectors of our societies (e.g. healthcare, product safety, airport security etc.), there is an urgent need for independent quality-control infrastructure for scientific publishing to address the large and growing number of fraudulent publications and patents and their systematic self-promotion through self-citations (Byrne 2025).

4. Some publishers have started to deal with the problem through their own technologies and lobbying organizations (such as the “STM Integrity Hub”). This was triggered by the rise of public awareness of systematic publishing fraud in the recent 10-15 years (Abalkina et al. 2025, Richardson et al. 2025, Sabel et al. 2025). This concerning development is now accelerated by automatized AI production of fake manuscripts and patents, images, conference reports, journals and even peer-reviews. In fact, estimates of large-language-model use in biomedical research are now at 90 percent (Glickman 2026). While commercial publishers' efforts to address these problems are welcome, independently governed checking systems could provide an additional layer of transparency, consistency and accountability. An independent system would also avoid potential conflicts between integrity-control functions and the commercial interests associated with publishing volume.
5. Unless corruption, predation and outright fraud is stopped by the scientific community and its funders, there is a growing risk of serious degradation of the scientific record, with consequences for our science- and technology-driven societies and economies throughout the world.

II. Independent publishing integrity checking (iPIC)

6. Just like safety and efficacy checks in the industry (such as in the drug, medical device or car industry, or in airport security), safety and efficacy of science publishing is in the interest of both the science community and the public at large. Therefore, the scientific community - not publishers - should take the lead in establishing independent systems for “independent **P**ublication **I**ntegrity **C**hecking” (**iPIC**) to verify (“pre-desk”) manuscript integrity *before (!)* they enter the publishers' peer-review process. Their task would not be to replace peer review in evaluating scientific content, but rather to identify indicators or signals of potential integrity problems and fraud that may not be readily detected by conventional peer review.
7. The unique position of iPIC would be their specialized knowledge of how to detect publishing fraud in a way that is scientifically validated, reliable and transparent. iPIC should offer fraud-signal technology services to provide scientifically validated integrity-screening services for scientific texts and materials (such as data, figures, formulas, manuscripts, peer-reviews and publications) and their secondary use (public media, AI-training).
8. iPIC-services should operate on a fee model that is independent of the outcome of the integrity assessment (“pay-per-use”), so that payment is not contingent on whether a manuscript or other material passes the integrity check. Customers are qualified publishers, science institutions, libraries, industry, funders, and governments.

9. Because the principle of science is to provide and promote trustworthy and transparent scientific and technical information, the governance and standards of iPIC should be transparent while the operational details of its fraud-detection methods must remain confidential. Therefore, iPIC services should not be made available to entities that intentionally seek to circumvent or undermine the integrity-checking system, including paper mills and fraudulent publishing operations of any kind. Otherwise, the signal detection systems of iPIC will become revealed in an arms race with bad actors (such as paper mills, careless editors or predatory journals) which would then amplify the problem of publishing fraud.

III. Science Publishing Integrity Norms (SPIN)

10. To assure transparency and integrity, iPIC shall be supervised and certified by an independent supervision/certification body of specialists which sets, supervises and regulates “**Science Publishing Integrity Norms**” (**SPIN**).
11. SPIN is a governing board representing different stakeholders from the academic and funding community. Its members should be funders, academies, learned (science) societies or organizations, research institutions, universities, policy makers, experts in decision making (e.g. security), i.e. parties with an interest in promoting trustworthy science and responsible technology development. The SPIN governing board will be informed about iPIC techniques to detect integrity signals under strict confidentiality.
12. Because science publishing is an international matter, SPIN members should reflect global representation across different academic disciplines. Each potential member of the governing board should disclose any potential commercial or other conflicts of interest when signing the confidentiality agreement.
13. During a SPIN certification visit, iPIC must reveal its parameters and methods used to identify integrity concerns and provide a pertinent report of its activities and results, including appropriately aggregated statistics on detected integrity signals across authors, institutions, journals and publishers. Any integrity score judgement shall be based on a sound and transparent science-based decision-making process using (mostly) automatized/scalable technology (incl. machine learning and AI methods) to handle millions of manuscripts, and wherever needed, "humans in the loop".
14. iPIC evaluations should focus on technical and quantifiable integrity signals and should not replace or interfere with editorial decision-making regarding scientific content.
15. Like regulatory bodies that issue marketing approval for medicinal or other products, SPIN could issue time-limited certifications confirming that a iPIC provider meets the required integrity standards. Such certifications should be subject to periodic review and could be withdrawn where necessary.
16. During the approval process, interested stakeholders, such as publishers or other interested parties, should be heard/consulted for input and realistic

implementation practicalities. Both commercial and non-commercial publishers shall be invited to inform about their needs and suggest recommendations to SPIN. SPIN may also support a cross-publisher coordination function (maintaining shared registers of verified compliant entities and identified repeat offenders, subject to transparent criteria and appropriate review procedures) and could decide on the white-listing of journals.

IV. Stakeholder benefits from independent integrity checks by iPIC

17. Benefits for the scientific community

- Greater reliability of the scientific record could reduce the waste associated with irreproducible or fraudulent research and increase confidence among researchers, funders, governments and the public.
- Eliminating fake-publications at scale reduces publishing expenses for the scientific community.
- Reduced burden of peer-review.
- Maintaining trust in research and researchers.

18. Benefits for publishers and journals

- The quality of fraud detection will be higher if specialized bodies perform this task based on solid and transparent research, and the flagging of suspected integrity violations will be more consistent. Publishers are still encouraged to perform any additional fraud detection procedures they deem necessary, especially those that may relate to specific fields of research.
- Publicly funded fraud checking will be done for out-of-pocket service charges only. It reduce publishers' expenses for their own integrity checks.
- If publisher #1 is doing a careful integrity check, but publisher #2 does not, or cannot afford it, this affects also publications from publisher #1 because of low quality products and/or citation fraud.
- If iPIC are responsible for independent handling of "publisher-wide" tasks, this will facilitate the sharing of integrity information without hindering competition, prevent duplicate submissions to journals, enhance benefits of meta-data analyses and help the development of effective fraud alerts.
- Small publishers with limited resources for fraud-checking will benefit by being at par when competing with larger publishers, lowering their risks of becoming fake-polluted and pushed out of the market.

19. Benefits for funders

- If fewer fraudulent papers are published, the burden of academic publishing charges (APCs) is reduced.
- Researchers will have more time to perform research instead of serving as reviewers of suspicious or fraudulent manuscripts.
- Greater confidence and trust in researchers' publication records for science funding decisions.
- Increased efficiency of reaching funding goals.

20. Benefits for the public

- Lower costs for academic publishing means more effective tax-spending for research and innovation.
- Increased quality of research and academia outcomes (trustable knowledge), R&D processes and product development and technology solutions.
- Improved quality of research-based decisions in health care, industrial development, security, etc.
- Increased reliability of public communication, and media reports of science will benefit all sectors of technology-based societies.

V. Conclusions and call-to-action

This call-to-action serves as a source of inspiration for reformation of the science publishing culture with respect to science information integrity. Our suggestions are neither complete nor applicable to all instances, contexts, disciplines, countries or publishing models. To implement an integrity safety mechanism, publishers should be consulted of how to accomplish a realistic, harmonious, and independent integrity checking infrastructure for a reformation of science publishing. The funders shall absorb the operating costs of iPIC and SPIN.

While there is a need for further discussion before implementation, the undersigned support the following fundamental principle:

“To uphold the quality and integrity of academic publishing, the scientific community and its funders are called to establish science and technology integrity checking systems that are fully independent of publishers.”

VI. Disclaimer

Because this call-to-action is time-sensitive, the undersigned express their own personal views unless otherwise specified. Their endorsement does not necessarily represent - nor imply - the official views of their respective organizations and/or employers. However, in the spirit of the “Stockholm Declaration” they will inform their organization of this call-to-action and invite them to join as well to help reform science publishing to maintain trustworthiness of academic publishing.

VII. List of signatories

Sven Lidin, University of Lund (Sweden) - President of the The Royal Swedish Academy of Sciences

Dan Larhammar, Uppsala University (Sweden) - former President of The Royal Swedish Academy of Sciences; co-author of the Stockholm Declaration

Gerd Gigerenzer, Max Planck Institute of Human Development & Vice President, European Research Council (ERC).

Bernhard Sabel, University of Magdeburg & Sciii Foundation gGmbH (Germany); co-author of the Stockholm Declaration.

.... *others to follow...*

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