

Scientific Watch October 2023 (n°8)

The scientific watch led this month to the selection of 23 papers. Nine of them address scientific publishing [1–9]. Eight of them deal with integrity issues related to new research practices [10–17]. Four papers focus on misconduct and questionable research practices [18–21]. The last two relate to the institutionalisation of research integrity [22], [23].



FOCUS OF THE MONTH

Scientific journals: find the clones

Hijacked journals - also known as cloned journals - "mimic legitimate journals by adopting their titles, ISSNs, and other metadata".¹ This is a form of predatory publishing: the 'editors' in charge incite researchers to publish, promising rapid publication, without respecting traditional standards of quality for scientific publications and charging fees.¹ In the case of hijacked journals, the amalgam with the legitimate journal of the same name increases the appearance of legitimacy.² This imitation is usually done without authorisation. More rarely, after having bought the rights to the original journal and then lowered standards quality, without announcing it.¹

This month, a researcher at the University of Gafsa (Tunisia) drew attention to one of these potential hijacked journals: the *Journal of Marketing Management*, published by the *American Research Institute for Policy Development*, which he claims is a clone of the legitimate journal of the same name published by *Taylor and Francis* [1]. He suggests to list this clone on the [Retraction Watch Hijacked Journal Checker](#), a tool that compiles a list of identified clones - 236 to date - which is due to evolve continually. According to the author, several notable researchers have fallen into the trap of this clone, whether they have published their research results in JMM or cited articles published in the latter.

- [1] S. Moussa, "Brandjacking is hijacking: A rejoinder to Abalkina", *The Journal of Academic Librarianship*, p. 102799, Oct. 2023, doi: [10.1016/j.acalib.2023.102799](https://doi.org/10.1016/j.acalib.2023.102799).


¹ "The Retraction Watch Hijacked Journal Checker". *Retraction Watch* (blog). May, 30 2022. <https://retractionwatch.com/the-retraction-watch-hijacked-journal-checker/>.

² To learn more about the issues surrounding hijacked journals, see for example: Abalkina, Anna. 2021. "Detecting a Network of Hijacked Journals by Its Archive". *Scientometrics* 126 (8): 7123-48. Doi: [10.1007/s11192-021-04056-0](https://doi.org/10.1007/s11192-021-04056-0).





SCIENTIFIC PUBLISHING

Predatory journals:

- [2] A. Darraz, Y. Motiaa, E. Ounci, M. Aabdi, S. Labib, and H. Sbai, "Predatory journals in anesthesia-intensive care: Know them to avoid them", *Anesthésie & Réanimation*, vol. 9, n°5-6, p. 434-439, Nov. 2023, doi: [10.1016/j.anrea.2023.04.002](https://doi.org/10.1016/j.anrea.2023.04.002).
- [3] M. Leduc, "La science ouverte et l'extension des revues prédatrices", *Reflets de la Physique*, n° 76, p. 48-50, Sept. 2023. doi: [10.1051/refdp/202376048](https://doi.org/10.1051/refdp/202376048). 
- [4] G. Tang and J. Peng, "Are the lists of questionable journals reasonable: A case study of early warning journal lists", *Accountability in Research*, available online: Sept. 2023, doi: [10.1080/08989621.2023.2261846](https://doi.org/10.1080/08989621.2023.2261846).

Papermills:

- [5] J. Wittau, S. Celik, T. Kacprowski, T. M. Deserno, and R. Seifert, "Fake paper identification in the pool of withdrawn and rejected manuscripts submitted to Naunyn–Schmiedeberg's Archives of Pharmacology", *Naunyn-Schmiedeberg's Archives of Pharmacology*, available online: Oct. 2023, doi: [10.1007/s00210-023-02741-w](https://doi.org/10.1007/s00210-023-02741-w). 
- [6] T. Mathiesen, "Clinical studies and research integrity", *Acta Neurochirurgica*, vol. 165, p. 3297–3298, available online: Sept. 2023, doi: [10.1007/s00701-023-05802-4](https://doi.org/10.1007/s00701-023-05802-4). 

Retraction:

- [7] J. J. Levett, L. M. Elkaim, N. M. Alotaibi, M. H. Weber, N. Dea, and M. M. Abd-El-Barr, "Publication retraction in spine surgery: a systematic review", *European Spine Journal*, vol. 32, p. 3704–3712, available online: Sept. 2023, doi: [10.1007/s00586-023-07927-7](https://doi.org/10.1007/s00586-023-07927-7).
- [8] M. A. M. Eldakar and A. M. K. Shehata, "A bibliometric study of article retractions in technology fields in developing economies countries", *Scientometrics*, vol. 128, p. 6047–6083, available online: Sept. 2023, doi: [10.1007/s11192-023-04823-1](https://doi.org/10.1007/s11192-023-04823-1).

Thoughts from publishers:

- [9] K. T. Barnhart, "Scientific integrity within Fertility and Sterility and formation of the Research Integrity Committee", *Fertility and Sterility*, vol. 120, n° 5, p. 931, Nov. 2023, doi: [10.1016/j.fertnstert.2023.09.001](https://doi.org/10.1016/j.fertnstert.2023.09.001).



NEW RESEARCH PRACTICES

Generative artificial intelligence systems, such as *ChatGPT*:

- [10] C. L. Bockting, E. A. M. van Dis, R. van Rooij, W. Zuidema, and J. Bollen, "Living guidelines for generative AI – why scientists must oversee its use", *Nature*, vol. 622, n° 7984, p. 693-696, Oct. 2023, doi: [10.1038/d41586-023-03266-1](https://doi.org/10.1038/d41586-023-03266-1).
- [11] J. Clusmann *et al.*, "The future landscape of large language models in medicine", *Communications Medicine*, vol. 3, Art. n° 141, Oct. 2023, doi: [10.1038/s43856-023-00370-1](https://doi.org/10.1038/s43856-023-00370-1). 
- [12] T. Jacques, R. Sleiman, M. I. Diaz, and J. Dartus, "Artificial Intelligence: Emergence and possible fraudulent use in medical publishing", *Orthopaedics & Traumatology: Surgery & Research*, vol. 109, n°8, available online: Oct. 2023, doi: [10.1016/j.otsr.2023.103709](https://doi.org/10.1016/j.otsr.2023.103709).
- [13] G. Kharlamova and A. Stavitsky, "The Use of Artificial Intelligence in Academic Publishing: Preliminary Remarks and Perspectives", *Access to Justice in Eastern Europe*, vol. 6, available online: Sept. 2023, doi: [10.33327/AJEE-18-6.3-n000319](https://doi.org/10.33327/AJEE-18-6.3-n000319). 
- [14] R. G. Richey Jr., S. Chowdhury, B. Davis-Sramek, M. Giannakis, and Y. K. Dwivedi, "Artificial intelligence in logistics and supply chain management: A primer and roadmap for research", *Journal of Business Logistics*, vol. 44, n° 4, p. 532-549, 2023, doi: [10.1111/jbl.12364](https://doi.org/10.1111/jbl.12364). 
- [15] G.-A. Odri and D. J. Y. Yoon, "Detecting generative artificial intelligence in scientific articles: Evasion techniques and implications for scientific integrity", *Revue de Chirurgie Orthopédique et Traumatologique*, vol. 109, n°8, p. 1103-1108, Dec. 2023, doi: [10.1016/j.rcot.2023.10.007](https://doi.org/10.1016/j.rcot.2023.10.007).

Other artificial intelligence systems, used in medical research:

- [16] S. Saini and N. Saxena, "A Survey of Threats to Research Literature-dependent Medical AI Solutions", *ACM Computing Surveys*, vol. 55, n° 14s, art. 315, July 2023, doi: [10.1145/3592597](https://doi.org/10.1145/3592597). 

Imposter participation in research *via* social media:

- [17] K. Drysdale, N. Wells, A. K. J. Smith, N. Gunatillaka, E. A. Sturgiss, and T. Wark, "Beyond the challenge to research integrity: imposter participation in incentivised qualitative research and its impact on community engagement", *Health Sociology Review*, vol. 32, n° 3, p. 372-380, Sept. 2023, doi: [10.1080/14461242.2023.2261433](https://doi.org/10.1080/14461242.2023.2261433).




MISCONDUCT AND QUESTIONABLE RESEARCH PRACTICES

P-hacking and publication bias:

This researcher from Ludwig-Maximilians University in Munich examined the reliability of more than 35,500 empirical studies published between 1975 and 2017 in journals issued by the American Psychological Association. According to his analysis, the proportion of false discoveries - which are only the result of statistical artifacts - is estimated at around 18% of the results presented as significant. These false discoveries may be due to some inappropriate research practices: publication bias (the act of publishing only significant results, omitting the others) and p-hacking (the act of transforming non-significant results into significant ones).² Using different scenarios, the author estimates how widespread are these practices.

For publication bias: between 23% and 42% of non-significant results may not have been published. For p-hacking: between 3% and 13% of results are likely to have been made significant when they were not. Although these estimates are based on parameters that are sometimes unknown, they are sufficient for the author to conclude that these practices are being used.

In addition, he notes that the probability of the effect observed in these studies being significant is below the rate expected for this type of study - i.e. a statistical power of less than 80% - in most scenarios.

[18] A. Schneck, "Are most published research findings false? Trends in statistical power, publication selection bias, and the false discovery rate in psychology (1975–2017)", *PLOS ONE*, vol. 18, n° 10, art. 0292717, Oct. 2023, doi: [10.1371/journal.pone.0292717](https://doi.org/10.1371/journal.pone.0292717). 

Self-citations:

[19] A. De Cassai *et al.*, "Impact of self-citation on author h-index in anaesthesiology and pain medicine", *British Journal of Anaesthesia*, vol. 131, n° 6, Dec. 2023, doi: [10.1016/j.bja.2023.09.017](https://doi.org/10.1016/j.bja.2023.09.017).

Delays in (or absence of) publication of the results of clinical trials:

[20] M. P. Grobusch, C. Ruiz del Portal Luyten, B. J. Visser, H. K. de Jong, A. Goorhuis, and T. Hanscheid, "Overcoming publication and dissemination bias in infectious diseases clinical trials", *The Lancet Infectious Diseases*, *in press*, available online: Oct. 2023, doi: [10.1016/S1473-3099\(23\)00455-3](https://doi.org/10.1016/S1473-3099(23)00455-3).

³ P-hacking is the search for "significant results within one dataset, turning nonsignificant results into significant ones" [18, p. 3]. Publication bias - namely "publishing only studies with significant results" [18, p.2] - and selective reporting bias - namely when "significant results within a given dataset are reported, whereas nonsignificant results within the same dataset remain unpublished" [18, p.2] - are not distinguished for the purposes of this study.



Salami slicing:

- [21] B. R. Waterman, J. H. Lubowitz, J. C. Brand, and M. J. Rossi, "Strategies to Mitigate Against Least-Publishable Units in Medical and Scientific Research Publications", *Arthroscopy: The Journal of Arthroscopic & Related Surgery*, vol. 39, n° 11, p. 2255-2256, Nov. 2023, doi: [10.1016/j.arthro.2023.08.003](https://doi.org/10.1016/j.arthro.2023.08.003).

INSTITUTIONNALISATION

In France:

In this paper, Marc Léger, former Scientific Integrity Officer at the *Commissariat à l'énergie atomique et aux énergies alternatives* [and scientific adviser to Ofis], retraces the history of the institutionalisation of research integrity in France. He describes its development through the various texts of reference - binding or not, French and international - and the resulting obligations. By discussing legal definitions, the role of research integrity officers, the doctoral oath and the obligations arising from open science, the paper shows how research integrity became a legal standard in its own, and is no longer merely a good practice that is part of the research community's self-regulation.

- [22] M. Léger, "Intégrité scientifique : le nouveau défi de la science et de la recherche", *Anesthésie & Réanimation*, vol. 9, n° 5-6, p.428-433, Nov. 2023, doi: [10.1016/j.anrea.2023.10.007](https://doi.org/10.1016/j.anrea.2023.10.007).

Regarding the standard of recklessness in misconduct proceedings:

- [23] M. M. Caron, S. B. Dohan, M. Barnes, and B. E. Bierer, "Defining "recklessness" in research misconduct proceedings", *Accountability in Research*, available online: Sept. 2023, doi: [10.1080/08989621.2023.2256650](https://doi.org/10.1080/08989621.2023.2256650). 