

Research Paper Mills

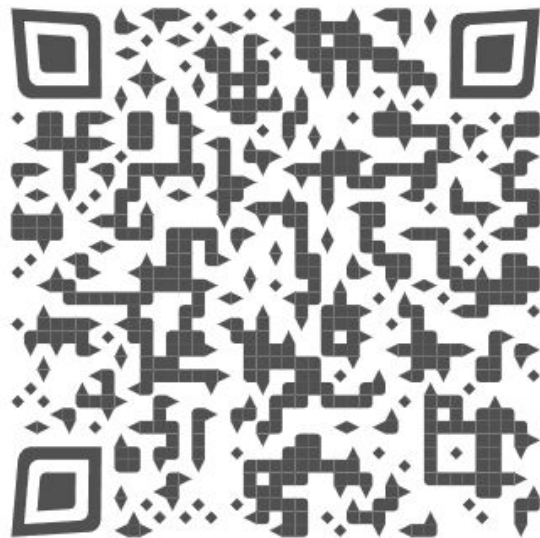
Milica Ševkušić, EIFL

AJOL Webinar Series 2025

28 August 2025

Outline

- What are research paper mills?
- How do they operate?
- What can you do to avoid them?



Symptoms

- Manipulated data and images
- Frequent requests to change the authors on a paper after acceptance (probably due to paid authorship)
- The journal charges APCs and has many submissions
-

Effects

- Paused submissions
- A large number of already published papers under investigation
- [Delisting from the Web of Science](#)

Journal plagued with problematic papers, likely from paper mills, pauses submissions

The halt will let Taylor & Francis focus on checking *Bioengineered's* papers for fraudulent works and paid authorships

3 JUL 2025 • 5:45 PM ET • BY JEFFREY BRAINARD



Symptoms

- Discrepancies in scope
- Discrepancies in the description of the research reported
- Discrepancies between the availability of data and the research described
- Inappropriate citations
- Incoherent, meaningless, and/or irrelevant content included in the article
- Compromised or manipulated peer-review
- Flawed papers were published in special issues

Effects

- Massive retractions
- Delisting from citation databases
- Journal closures
- Brand closure

Hindawi reveals process for retracting more than 8,000 paper mill articles

Over the past year, amid announcements of thousands of retractions, journal closures and a major index delisting several titles, executives at the troubled publisher Hindawi have at various times mentioned a “new retraction process” for investigating and pulling papers “at scale.” The publisher has declined to provide details – until now.



So far in 2023, Hindawi has retracted over 8,000 articles – more than we’ve ever seen in a single year from all publishers combined. And Hindawi is not done cleaning up from paper mills’ infiltration of its special issues, according to a new report from its parent company, Wiley.

Reckoning with Hindawi’s paper mill problem has cost Wiley, which bought the open-access publisher in 2021, an estimated \$35-40 million in lost revenue in the current fiscal year, Matthew Kissner, Wiley’s interim president and CEO, said on the company’s most recent earnings call. Wiley will stop using the “Hindawi” name next year, Kissner told investors.

Definition

Research paper mills / Academic paper mills

A **business** that fabricates poor quality or completely fraudulent papers that may seem plausible, sells authorship on such papers and makes sure that they are published in legitimate journals (and less frequently, conference proceedings and edited volumes).

- Fraud can take different forms: selling authorship, manipulated editor handling, peer review manipulation, selling citations, plagiarism, image manipulation, nonsensical text, unrelated citations, etc.)
- Ghost-written or machine generated papers, often using templates
- Massive scale
- Present for about 20 years; a major issue since 2017
- Targeting primarily journals indexed in major citation databases

Some research areas are more vulnerable to paper mills than others

“Targeted gene research may represent an attractive topic for paper mills because the associated **experimental results are easy to fabricate**. In contrast to the fabrication of genome-wide research that has been estimated to require similar effort as the acquisition of genuine data, **targeted gene research is easier to fabricate than to produce through genuine effort**. ”

“Paper mills are also likely to value **topics that allow the creation of many individual manuscripts at scale**. Targeted human gene research provides several scaling factors that could enable the production of many individual manuscripts.”

“For example, large numbers of problematic or fabricated manuscripts require many different authors for distribution, as highly similar manuscripts and publications by the same authors is a recognized feature of questionable research. **Gene research manuscripts may therefore be attractive to paper mills as they can be plausibly authored by researchers ranging from basic scientists to clinicians, who can be affiliated with different institution types in many countries.**”

“Given the absence of effective detection methods and responses, at least some paper mills may have been operating with few impediments for at least the past decade. The **opportunity to learn over time could allow paper mills to progressively refine their business models and render their manuscripts increasingly plausible and resistant to detection.**”

Typical workflow

- “A paper written by the paper mill staff is submitted to a number of different journals to see which one accepts it
- Once a paper is accepted in principle or starts the revision process, the other papers are abandoned
- The provisionally accepted paper is then listed on the paper mill site with an offer to buy one of up to six authorship places
- Prices vary with the impact factor of the journal and the position in the list of authors with a lead author being the highest price
- Authors are generally assigned an email address and all the correspondence is handled by the paper mill
- In some cases the paper mill will recommend reviewers who will then provide a positive review
- Once a journal publishes a paper, the successful paper mill will follow up with sometimes hundreds more submissions on similar topics
- If a published paper is challenged, the “author” may sometimes back down and ask for the paper to be retracted because of data problems or they may try to provide additional supporting information including a supporting letter from their institution which is also a fake.”

Source: COPE & STM. Paper Mills — Research report from COPE & STM — English.

<https://doi.org/10.24318/jtbG8IHL> ©2022 Committee on Publication Ethics (CC BY-NC-ND 4.0)



How The Chennai-Based ARDA Guarantees Quick Publication Without Peer-Reviewing, Sells Authorship

📅 August 7, 2025 👤 Prasad Ravindranath

"Your full paper, we can publish by August 15. If you complete the payment [of Rs.23,000] today [August 6, 2025], formatting will be completed tomorrow and sent for publication," the Chennai-based Academic Research and Development Association (ARDA) person messaged on WhatsApp. Phew!

"Unfortunately, I was told that there is no paper or a journal currently available where my name could be added as an author. "Your paper publication we can do early. Author position in a paper will take time — September-November," the person messaged me back. We had an author position in medical [journal] last month," the person responded. "In future, if you need an author position, please let me know."

Next, I enquired about the charges for authorship in a paper. The reply was swift — Rs.16,000, Rs.15,000, Rs.14,000, Rs.13,000, Rs.12,000 and, Rs.11,000. These charges are for first author position, second author position and so on. So the charges for publishing a paper are Rs.23,000 per author, while the charges to get one's name added to a paper without doing any work works out far cheaper!"

<https://sciencechronicle.in/2025/08/07/how-the-chennai-based-arda-guarantees-quick-publication-without-peer-reviewing-sells-authorship/>

Motivation



Paper mills

- Financial gain
- Intentional undermining of trust in science (?)



Researchers

- Publish or perish
- Career development criteria based on productivity
- PhD requirements
- Institutional pressure
- Academic rankings



Publishers

- Financial gain from APCs
- Pressure to increase output
- Citation benefits
- Quick growth

An example: data fabrication and citation manipulation

How it started for the journal:

In 2023, it was delisted from the Web of Science due to citation stacking (manipulative citation exchange with another journal).

How it started for the community:

Discussions on PubPeer and Twitter since 2021, pointing to authorship issues, the same text appearing across articles in different journals, data fabrication, excessive citation of specific papers, irrelevant references not cited in the text in more than 30 articles from this journal.

https://pubpeer.com/publications/67510E5687F619A7107908B627DAD8?utm_source=Firefox&utm_medium=BrowserExtension&utm_campaign=Firefox

#1 *Hoya camphorifolia* comment accepted November 2021

I am puzzled by one aspect of the authorship of this paper. First author Qian Xiaohui provided a contact email address, 'xuanxuanww2@163.com'. The choice of this address is not obvious. More to the point, the same address was provided by a Wu Xuan, corresponding author of "[Design of electro-hydraulic servo loading controlling system based on fuzzy intelligent water drop fusion algorithm](#)" (a problematic paper).

Could either author confirm who uses this account?

#2 *Hoya camphorifolia* comment accepted December 2021

But wait, there's more! A paragraph from the present paper also features in the unexpectedly pistachio-related Discussion of "[Expression of caveolin-2 in patients with oral cancer and correlations with clinicopathological parameters](#)" (Wan, Zhang & Zhu 2021).

"Given the complexity, it is necessary to explore other methods that could complement the traditional taxonomical approach (ERBANO *et al.*, 2015). Advent and developments in molecular techniques have enabled plant taxonomists to utilize molecular protocols to study plant groups (ERBANO *et al.*, 2015). We examined genetic diversity in *Pistacia vera* genotypes by morphological and molecular methods. We mainly used RAPD markers to investigate genetic diversity and genetic affinity in *Pistacia vera* genotypes. Our clustering and ordination techniques showed similar patterns. Morphometry results clearly showed the utilization or significance of morphological characters in *Pistacia vera* genotypes. UPGMA method results also confirmed the application of morphological characters to separate *Pistacia vera* genotypes. The present study also highlighted that morphological characters such as the ratio of the pistachio kernel to the testa; length of the pistachio kernel; width of the pistachio kernel thickness of the pistachio kernel could delimit the *Pistacia vera* genotypes. We argue that such a dissimilarity was due to differences in quantitative and qualitative traits.

Pistachio has important socio-economic and ecological impacts in the arid and semi-arid agricultural regions of Iran (KAFKAS *et al.*, 2006). In addition, Iran hosts a wide genetic diversity of *Pistacia* spp. and more than 300 pistachio genotypes have been collected across the country. Iran therefore possesses valuable germplasm for pistachio improvement and conservation programs. Assessing genetic diversity and relationships among cultivars of Iranian pistachio, using discriminative and robust markers, is therefore important (MIRZAEI *et al.*, 2005).

Could the authors give an explanation for citing four papers of GHOLAMIN and KHAYATNEZHAD in the references but not in the text? Could the authors say where these papers would have fit into the text, given the topics of those papers?

GHOLAMIN, R. and M. KHAYATNEZHAD (2020a): Assessment of the Correlation between Chlorophyll Content and Drought Resistance in Corn Cultivars (Zea Mays). Helix, 10: 93-97.

GHOLAMIN, R. and M. KHAYATNEZHAD (2020b): The effect of dry season stretch on Chlorophyll Content and RWC of Wheat Genotypes (Triticum Durum L.). Biosci. Biotech. Res. Comm., 13: 1833-1829.

GHOLAMIN, R. and M. KHAYATNEZHAD (2020c): Study of Bread Wheat Genotype Physiological and Biochemical Responses to Drought Stress. Helix, 10: 87-92. 796 GENETIKA, Vol. 53, No2, 783-798, 2021

GHOLAMIN, R. and M. KHAYATNEZHAD (2020d): The Study of Path Analysis for Durum Wheat (Triticum durum Desf.) Yield Components. Biosci. Biotech. Res. Comm., 13: 2139-2144.

Here is a screenshot of some of the sampling locations for these different papers. Although the coordinates are the same across papers, the names of the locations (cities, provinces, regions) vary. The locations given in the table usually do not match those given on the map that is included in many of the papers, although both are showing Iran.

Ying Lin et al., Genetika (2021), DOI: 10.2298/GENSR21020507L

Table 1. List of the investigated sites including origin of voucher specimens

No	Type	Locality	Latitude	Longitude	Altitude
1	E. cicutarium	Shiraz, NW of Shiraz	29° 57' 48"	49° 54' 48"	100
2	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
3	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
4	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
5	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
6	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
7	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
8	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
9	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
10	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100

Juan Yin, GENETIKA (2021), DOI: 10.2298/GENSR22010173Y

Table 1. List of the investigated sites including origin of voucher specimens

No	Type	Locality	Latitude	Longitude	Altitude
1	E. cicutarium	Shiraz, NW of Shiraz	29° 57' 48"	49° 54' 48"	100
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9	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
10	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100

Dezhong Bi et al., Genetika (2021), DOI: 10.2298/GENSR2101393B

Table 1. List of the investigated sites including origin of voucher specimens

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9	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100
10	E. cicutarium	Kashan, Kashan	32° 57' 48"	49° 54' 48"	100

This paper is one of a set of dozens of papers that all have very similar plant sampling locations in Iran. Most papers from this set have been published in the journals Caryologia or Genetika around 2021.

These papers are suspected to be part of a paper mill, as first proposed by Norbert Holstein on Twitter.

Many of these papers seem to have in common citing the same papers by S.M. Esfandani-Bozchaloyi and M. Khayatnezhad, perhaps as part of a citation ring.

There are often also striking similarities between the morphological or genetical similarity data obtained from different plant species by different researchers.

I propose to name this the **Iranian Plant Paper Mill**.

To illustrate some unexpected similarities in genetic diversity across these papers, I have made a collage comparing four papers.

Somayeh Esfandani Bozchaloyi et al (2017), DOI: 10.2298/GENSR1702543B
Geranium purpureum

Table 3. Genetic diversity parameters in the studied populations. (N = number of samples, Ne = number of effective alleles, I = Shannon's information index, He = gene diversity, UHe = unbiased gene diversity, P% = percentage of polymorphism, populations).

Pop	N	Ne	I	He	UHe	P%
Pop1	1094	1.309	0.267	0.179	0.189	49.41
Pop2	1.126	1.272	0.298	0.192	0.201	58.87
Pop3	0.647	1.882	0.152	0.103	0.111	27.06
Pop4	0.506	1.104	0.090	0.061	0.067	16.47
Pop5	0.694	1.311	0.126	0.081	0.087	27.06
Pop6	0.482	0.990	0.077	0.052	0.059	14.12
Pop7	0.459	1.115	0.089	0.062	0.068	15.29
Pop8	0.329	1.036	0.077	0.019	0.021	8.71
Pop9	0.388	1.081	0.068	0.046	0.056	11.76
Pop10	0.318	0.958	0.050	0.034	0.045	8.24
Pop11	0.855	1.266	0.179	0.119	0.132	34.12
Pop12	0.541	1.118	0.094	0.070	0.084	18.82
Pop13	0.718	1.162	0.147	0.097	0.106	29.41
Pop14	0.918	1.225	0.197	0.132	0.139	55.29
Pop15	0.576	1.144	0.122	0.083	0.095	21.18

Xi Fei et al., Banglad J Plant Taxon (2021), DOI: 10.3329/bjpt.v28i1.54208

Erodium cicutarium

Table 2. Genetic diversity parameters in the studied populations *E. cicutarium*.

Pop	N	Na	Ne	I	He	UHe	P%
Pop1	10	0.388	1.081	0.068	0.046	0.056	19.76
Pop2	5	0.318	1.058	0.050	0.034	0.045	9.24
Pop3	6	0.835	1.266	0.179	0.119	0.132	35.12
Pop4	4	0.541	1.118	0.090	0.073	0.084	8.44
Pop5	8	0.718	1.162	0.147	0.097	0.106	29.41
Pop6	7	0.918	1.225	0.197	0.132	0.139	55.29
Pop7	5	0.576	1.144	0.155	0.144	0.095	47.18
Pop8	11	0.329	1.036	0.087	0.079	0.021	45.71
Pop9	7	0.647	1.182	0.152	0.103	0.111	27.06
Pop10	6	0.506	1.104	0.090	0.061	0.067	18.47
Pop11	6	0.694	1.311	0.126	0.081	0.087	27.06
Pop12	5	0.482	1.090	0.077	0.052	0.059	14.12
Pop13	12	0.459	1.115	0.089	0.062	0.068	12.29
Pop14	7	0.329	1.036	0.087	0.079	0.021	45.71
Pop15	11	0.718	1.162	0.147	0.097	0.106	29.41

N = number of samples, Ne = Number of different alleles, Ne = number of effective alleles, I = Shannon's information index, He = gene diversity, UHe = unbiased gene diversity, P% = percentage of polymorphism, populations).

Jialing Li et al., Genetika (2021), DOI: 10.2298/GENSR2103369L

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Yaochen Jia, Genetika (2020), DOI: 10.2298/GENSR2003127J

Table 1. List of the investigated sites including origin of voucher specimens

No	Type	Locality	Latitude	Longitude	Altitude
1	E. cicutarium	Shiraz, NW of Shiraz	29° 57' 48"	49° 54' 48"	100
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Juan Yin et al., Genetika (2021), DOI: 10.2298/GENSR2101363Y

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Yaochen Jia, Genetika (2020), DOI: 10.2298/GENSR2003127J
Geranium purpureum

Table 4. Genetic diversity parameters in the studied populations *E. cicutarium* (N = number of samples, Ne = number of effective alleles, I = Shannon's information index, He = gene diversity, UHe = unbiased gene diversity, P% = percentage of polymorphism, populations).

Pop	N	Ne	I	He	UHe	P%
Pop1	10	1.033	1.377	0.225	0.179	52.35
Pop2	5	1.146	1.337	0.289	0.189	66.31
Pop3	6	0.747	1.182	0.142	0.103	57.06

Science Integrity Digest

A blog about science integrity, by Elisabeth Bik, for Harbers-Bik LLC. Support my work at [Patreon.com/elisabethbik](https://www.patreon.com/elisabethbik)

The Iranian Plant Paper Mill



eliesbik

September 15, 2022

Paper mills

Paper mills

Previously I wrote about the [Tadpole Paper Mill](#) and the [Stockphoto Paper Mill](#) papers. [Paper Mills](#) are companies that sell fake or plagiarized scientific papers to authors who need them for their career. Certain countries have [strict requirements or monetary incentives](#) for medical doctors, graduate students, or other researchers to publish papers. In such countries, other researchers or business folks have found creative ways of making money by selling fake papers to researchers. Such paper mills are similar to [essay mills](#) where ghostwriters offer their services to undergraduate students.

<https://scienceintegritydigest.com/2022/09/15/the-iranian-plants-paper-mill/>



Norbert Holstein @dr_norb · Jun 27, 2022

Holy moly. 🤔 I just found that a journal is under serious attack of a paper mill. I found 6 papers with ill-fitting locations and coordinates (incl. technically impossible coordinates), sometimes copy & paste in the figures and always citing the same 4-5 papers.

[@MicrobiomDigest](#)

8

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Norbert Holstein @dr_norb · Jun 27, 2022

How does one tackle that? I feel horrible because I have to send the poor editor in-chief the terrible news that 5 papers in a single issue are fraudulent. All papers fulfill ugly clichés, and from one paper, I even know one of the authors. 🙄

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1

11



Norbert Holstein

@dr_norb



And, it's three more papers in the same journal, most in the very same issue. But the paper/citation mill spreads across several journals and includes even odd citations like Uranium content in an animal, cited in a paper on biogeography of plants. 🤔

How it ended

A clumsy correction in 2022

#4 Michal Šoral comment accepted July 2022

A corrigendum has been published in volume 54, no. 1 (2022), with the DOI: 10.2298/GENSR2201513E. The corrigendum states: Snežana Mladenović Drinić, Editor of the journal Genetika request from Xiaohui Qian to remove name from the paper DETECTING DNA POLYMORPHISM AND GENETIC DIVERSITY IN A WIDE PISTACHIO GERMLASM BY RAPD MARKERS Xiaohui QIAN1* and Shahram MEHRI2 1Department of Tourism and Culture, Anhui Finance and Trade Vocational College, Hefei, China 2Department of Agronomy and Plant Breeding, ParsAbad Moghan Branch, Islamic Azad University, ParsAbad Moghan, Iran Original scientific paper <https://doi.org/10.2298/GENSR2102783Q> published in the journal Genetika, 2021, Vol 53, No.2, 783-798

On the other hand, if one accesses the full text of the corrigendum via the website of the Serbian Genetic Society (<https://www.dgsgenetika.org.rs/publications/journals-genetika/> and afterwards https://www.dgsgenetika.org.rs/abstrakti/vol54_2022_no1_en.htm, a different version of the corrigendum is shown, being more like a statement of the first author. Within, he makes a statement that his personal information have been used without his consent; that the corresponding author's e-mail address is not his and that he did not know about the publication process. See: <https://www.dgsgenetika.org.rs/abstrakti/vol54no1corrtext.pdf>.

More than 30 retractions in 2023

<https://doi.org/10.2298/GENSR2302791E>

From the retraction notice: “All papers which belong to this group have passed a regular review process. As part of the reviewing process, according to Journal policy, it is expected from reviewers to check all relevant data including citations probity. All papers were published after two positive reviewers’ opinions.”

Machine generated papers

- Nonsensical text generated in SCIfgen (software designed in by MIT PhD students in 2005) or other software, full of technical jargon, random data, and non-existing references.
- Tortured phrases (when paraphrasing tools are used to conceal plagiarism)

Cabanac, Guillaume, and Cyril Labbé. 2021. 'Prevalence of Nonsensical Algorithmically Generated Papers in the Scientific Literature'. Journal of the Association for Information Science and Technology 72 (12): 1461–76. <https://doi.org/10.1002/asi.24495>.

Cabanac, Guillaume, Cyril Labbé, and Alexander Magazinov. 2021. 'Tortured Phrases: A Dubious Writing Style Emerging in Science. Evidence of Critical Issues Affecting Established Journals'. arXiv:2107.06751. Preprint, arXiv, July 12. <https://doi.org/10.48550/arXiv.2107.06751>.

Tortured phrase found in publications	Correct wording expected
profound neural organization (fake counterfeit) neural organization versatile organization organization (ambush assault) organization association	deep neural network artificial neural network mobile network network attack network connection
(enormous huge immense colossal) information information (stockroom distribution center)	big data data warehouse
(counterfeit human-made) consciousness	artificial intelligence (AI)
elite figuring haze figuring	high performance computing fog/mist/cloud computing
designs preparing unit focal preparing unit	graphics processing unit (GPU) central processing unit (CPU)
work process motor	workflow engine
facial acknowledgement discourse acknowledgement	face recognition voice recognition
mean square (mistake blunder) mean (outright supreme) (mistake blunder)	mean square error mean absolute error
(motion flag indicator sign signal) to (clamor commotion noise)	signal to noise
worldwide parameters	global parameters
(arbitrary irregular) get right of passage to (arbitrary irregular) (backwoods timberland lush territory) (arbitrary irregular) esteem	random access random forest random value
subterranean insect (state province area region settlement) underground creepy crawly (state province area region settlement)	ant colony ant colony
leftover vitality territorial normal vitality motor vitality	remaining energy local average energy kinetic energy
(credulous innocent gullible) Bayes	naïve Bayes



Problematic Paper Screener

Est. February 27th, 2021

Stable URL: <https://www.irit.fr/~Guillaume.Cabanac/problematic-paper-screener>

This website shows reports the daily screening of papers (partly) generated with:

- ▶ Tortured phrases 🔥
- ▶ SCIdgen
- ▶ Mathgen

... and other issues such as Citejacked papers.

Harvesting data from these APIs:

- ▶ Crossref, now including the Retraction Watch Database
- ▶ Dimensions, see our [webinar](#) and the associated [blog post](#)
- ▶ PubMed
- ▶ PubPeer

<https://www.irit.fr/~Guillaume.Cabanac/problematic-paper-screener>

Problematic Paper Screener

- Harvests article metadata from various sources.
- Screens articles for the use of text generators
- Publishes databases of fraudulent papers affected by tortured phrases, generated by SCIdgen and Mathgen, annulled, citejacked and more.

Challenges

- Late detection - in post-publication discussions.
- The exact scale of the problem is not known.
- The range of fraud types is wide and not fully investigated.
- Some fraudulent papers may look plausible.
- Investigation is mainly led by individuals or small groups of experts (rather than by institutions).
- Paper mills are investigated unevenly across disciplines and geographic regions.
- Paper mills quickly adapt to new situations.
- The role of artificial intelligence (current and potential).

Journal hopping

After a journal is delisted from a citation databases, articles originating from paper mills start to appear in a different journal of the same publisher.

Reese A. K. Richardson, Journal Hopping by Research Paper Mills after a Preferred Journal Is De-Indexed. Center for Open Science, 2023.

https://www.youtube.com/watch?v=OsacupPEj_Q.

Generative AI: emerging challenge or solution?

- Generative AI could make it easier for paper mills to produce fraudulent papers (e.g. by fabricating more plausible data and text).
- Generative AI could make paper mills redundant.
- New tools could make it easier to detect paper mills activity.

The paper mill problem: are AI tools the answer?

AI tools are spotting errors in research papers: inside a growing movement

The real threat of AI-Powered research paper mills to academic publishers

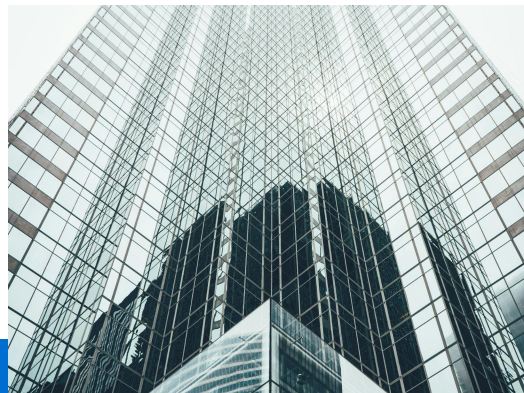
AI and 'paper mills': a big ethics battle

Risks



For researchers

- Using fraudulent publications in their research
- Citing fraudulent publications
- Peer or institutional pressure to take part in fraudulent practices
- Negative effects on career and reputation



For journals/publishers

- Being targeted by paper mills
- Insufficient skills to identify fraudulent papers
- Insufficient resources to investigate
- Limited reviewer base
- Reputation decline
- Delisting from indexes

What researchers can do

- Choose journals carefully ([Choosing a journal for your research: Checklist for researchers and librarians | EIFL](#))
- Search Retraction Watch Database to see whether there are registered retractions from the journal and check the reasons for retractions.
- Check cases described on Retraction Watch (<https://retractionwatch.com/?s=paper+mill>) and elsewhere.
- Search for the journal's/publisher's DOI prefix in PubPeer to see whether there are any ongoing discussions.
- Install PubPeer browser extension and Zotero add-on.
- Follow discussions on social media.
- Stay informed (e.g. set up alerts, sign up for newsletters, etc.)

Retraction Watch Database

<p>Applications Aczel-Alsina t-norm and t-conorm for the assessment of fire extinguishers using Pythagorean fuzzy information (B/T) Computer Science; (B/T) Data Science; (B/T) Technology; <i>Journal of Intelligent & Fuzzy Systems</i> — IOS Press (bought by Sage November 2023) Department of Mathematics, Riphah International University (Lahore Campus), Lahore, Pakistan Department of Operations Research and Statistics, Faculty of Organizational Sciences, University of Belgrade, Belgrade, Serbia College of Engineering, Yuan Ze University, Taiwan https://retractionwatch.com/2023/04/17/sage-journal-intelligent-fuzzy-systems-retracts-678-more-papers/</p>	<p>Computer-Aided Content or Computer-Generated Content Concerns/Issues about Referencing/Attributions Concerns/Issues about Third Party Involvement Fake Peer Review Investigation by Journal/Publisher Investigation by Third Party Paper Mill Unreliable Results and/or Conclusions</p>	<p>Tahira Karamat Kifayat Ullah Dragan Pamucar Maria Akram</p>	<p>04/16/2023 00000000 10.3233/jifs-231876</p>	<p>04/17/2025 00000000 10.1177/10641246251331509</p>	<p>Research Article Retraction</p>
<p>Applications to biogas-plant implementation problem based on type-2 picture fuzzy matrix game under new $minkowski$ type measures (B/T) Computer Science; (B/T) Data Science; (B/T) Technology; (PHY) Energy; <i>Journal of Intelligent & Fuzzy Systems</i> — IOS Press (bought by Sage November 2023) Department of Mathematics and Statistics, International Islamic University Islamabad, Pakistan KERMIT, Department of Mathematical Modeling, Statistics and Bioinformatics, Coupure links 653, Ghent University, Ghent, Belgium Department of Operations Research and Statistics, Faculty of Organizational Sciences, University of Belgrade, Belgrade, Serbia https://retractionwatch.com/2023/04/17/sage-journal-intelligent-fuzzy-systems-retracts-678-more-papers/</p>	<p>Computer-Aided Content or Computer-Generated Content Concerns/Issues about Referencing/Attributions Concerns/Issues about Third Party Involvement Fake Peer Review Investigation by Journal/Publisher Investigation by Third Party Paper Mill Unreliable Results and/or Conclusions</p>	<p>Tahir Mahmood Zeeshan Ali Dragan Pamucar</p>	<p>01/27/2023 00000000 10.3233/jifs-223009</p>	<p>04/17/2025 00000000 10.1177/10641246251331509</p>	<p>Research Article Retraction</p>
<p>Energies of T-spherical fuzzy graph based on novel Aczel-Alsina T-norm and T-conorm with their applications in decision making (B/T) Computer Science; (B/T) Data Science; (B/T) Technology; <i>Journal of Intelligent & Fuzzy Systems</i> — IOS Press (bought by Sage November 2023) Department of Mathematics, Riphah International University Lahore, Pakistan Faculty of Organizational Sciences, University of Belgrade, Belgrade, Serbia College of Engineering, Yuan Ze University, Taiwan Department of Computer Science and Mathematics, Lebanese American University, Byblos, Lebanon Mathematics Department, College of Science, King Saud University, Riyadh, Saudi Arabia https://retractionwatch.com/2023/04/17/sage-journal-intelligent-fuzzy-systems-retracts-678-more-papers/</p>	<p>Computer-Aided Content or Computer-Generated Content Concerns/Issues about Referencing/Attributions Concerns/Issues about Third Party Involvement Fake Peer Review Investigation by Journal/Publisher Investigation by Third Party Paper Mill Unreliable Results and/or Conclusions</p>	<p>Mah Noor Muhammad Kamran Jami Kifayat Ullah Muhammad Azeem Dragan Pamucar Bandar Almoheisen</p>	<p>07/17/2023 00000000 10.3233/jifs-231086</p>	<p>04/17/2025 00000000 10.1177/10641246251331509</p>	<p>Research Article Retraction</p>

<https://retractiondatabase.org/>

Zotero marks retracted papers

🔍 All Fields & Tags

Title	Creator	Item ...	Year	P...	Publication	Date ...	
✖ Detecting DNA polymorphism and geneti...	Qian and Mehri	Jour...	2021		Genetika	8/28/20...	
✖ Evaluation of genetic diversity in geraniu...	Yin et al.	Jour...	2021		Genetika	6/2/202...	
✖ RAPD profiling in detecting genetic variati...	Peng et al.	Jour...	2021		Genetika	6/2/202...	
✖ Gene flow and population structure in All...	Chen et al.	Jour...	2021		Genetika	6/2/202...	
✖ Genetic diversity and relationships amon...	Yanpeng et al.	Jour...	2021		Genetika	6/2/202...	
✖ Population differentiation and gene flow i...	Jia et al.	Jour...	2020		Genetika	6/2/202...	
✖ Molecular identification and genetic diver...	Bi et al.	Jour...	2021		Genetika	6/2/202...	
✖ Embedded silica nanoparticles in poly(ca...	Ganesh et al.	Jour...	2012		Tissue Engineeri...	10/17/2...	
✖ Bone regeneration through controlled rel...	Hosseinkhani et al.	Jour...	2007		Journal of Contr...	10/17/2...	
✖ Preparation of propolis nanofood and ap...	Kim et al.	Jour...	2008		Biological and P...	10/17/2...	
✖ Embedded silica nanoparticles in poly(ca...	Ganesh et al.	Jour...	2012		Tissue Engineeri...	10/17/2...	
✖ [St. Luke and his cult as holy healer of the...	Mitrovic et al.	Jour...	2004		Srpski arhiv za c...	4/10/20...	
✖ [Systemic inflammatory response syndro...	Milic et al.	Jour...	2004		Srpski arhiv za c...	4/10/20...	

Detecting DNA polymorphism and genetic diversity in a wide pistachio germplasm by RAPD markers

Info

This work has been retracted.

Retracted on 5/1/2023

Concerns/Issues about Referencing/Attributions

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Application of G-Ori metamaterials as sports equipment baseball bat in an electro-magneto-elastic sandwich composite beam

Jiahao Zhu, Yi Wang, Ning An, Mostafa Habibi, H. Wang

Mechanics of Advanced Materials and Structures (2024)

2 comments

**17
hours
ago**

Silencing circular RNA VANG1 inhibits progression of bladder cancer by regulating miR-1184/IGFBP2 axis

Dengke Yang, Haining Qian, Zhen Fang, An Xu, Shutian Zhao, Bingyan Liu, Dong Li

Cancer Medicine (2020)

5 comments

Search for an article or a journal/publisher DOI prefix

<https://pubpeer.com/>

PubPeer browser extensions



OUCI

<https://ouci.dntb.gov.ua> , works

Management strategies for efficient energy production of ...

Journal Article. DOI. [10.1016/j.egy.2025.02.032](https://doi.org/10.1016/j.egy.2025.02.032). Journal. 2025, Energy Reports, p. 4182-4195.

Publisher. Elsevier BV. Authors. Chenchen Song, Abdulkareem ...



1 comment on PubPeer (by: Sinobdella Sinensis)



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RETRACTED: Middle East energy consumption and potential renewable sources: An overview

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Optimal sizing and techno-enviro-economic feasibility assessment of large-scale reverse osmosis desalination powered with hybrid renewable energy sources

Management strategies for efficient energy production of brackish water desalination ensuring reliability, cost reduction, and sustainability

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Energy Reports

Volume 13, June 2025, Pages 4182-4195



Management strategies for **efficient** energy production of brackish water desalination ensuring reliability, cost reduction, and sustainability

Chenchen Song ^a, Abdulkareem Abdulwahab ^b , Samia Elattar ^c, Riadh Marzouki ^d

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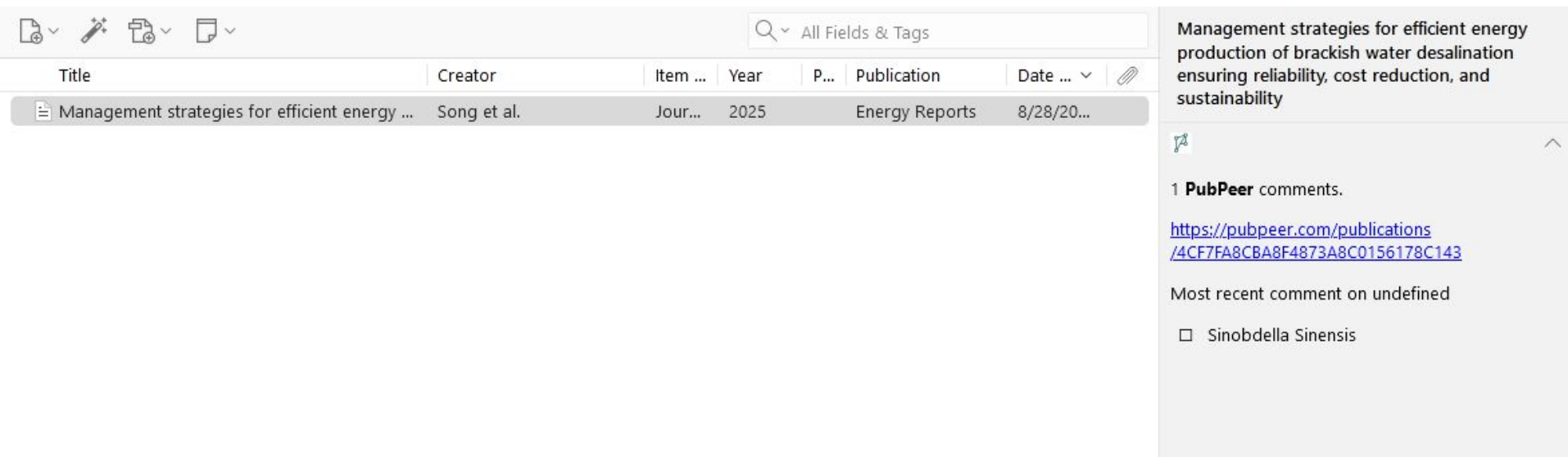
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<https://github.com/PubPeerFoundation>

PubPeer plugin for Zotero



The screenshot displays the Zotero application interface. At the top, there is a toolbar with icons for adding, editing, and deleting items, along with a search bar labeled "All Fields & Tags". Below the toolbar is a table of publications. The table has columns for Title, Creator, Item ID, Year, P... (likely Publisher), Publication, and Date. A single publication is listed: "Management strategies for efficient energy ..." by "Song et al.", published in "Jour..." in "2025", with the publication name "Energy Reports" and a date of "8/28/20...". To the right of the table, a detailed view of the selected publication is shown. It includes the title "Management strategies for efficient energy production of brackish water desalination ensuring reliability, cost reduction, and sustainability", a PubPeer icon, and a link to the PubPeer page: <https://pubpeer.com/publications/4CF7FA8CBA8F4873A8C0156178C143>. Below the link, it states "Most recent comment on undefined" and shows a comment by "Sinobdella Sinensis".

Title	Creator	Item ...	Year	P...	Publication	Date ...
Management strategies for efficient energy ...	Song et al.	Jour...	2025		Energy Reports	8/28/20...

Management strategies for efficient energy production of brackish water desalination ensuring reliability, cost reduction, and sustainability

1 **PubPeer** comments.

<https://pubpeer.com/publications/4CF7FA8CBA8F4873A8C0156178C143>

Most recent comment on undefined

☐ Sinobdella Sinensis

https://github.com/PubPeerFoundation/pubpeer_zotero_plugin

What editors can do

- Establish quality criteria and apply them consistently.
- Include measures against misconduct in editorial policies.
- Increase transparency (requiring [author contribution statements](#) and ORCIDs for all authors ([limited effects](#)), promoting open peer review, requiring data statements and access to underlying data, requiring preregistration).
- Check references for relevance and authenticity
- Establish a reliable pool of reviewers.
- Avoid publishing externally managed special issues.
- Reject low-quality submissions.
- Try to detect red flags.
- Use software to detect plagiarism, data inconsistencies, image issues and signs of papermilling – e.g. [Papermill Alarm](#), a commercial tool for publishers, early-warning system which alerts you to papers with signs of papermilling).
- Encourage post-publication discussions.
- Stay informed.

Selected resources

- Tackling Industrial Scale Research Fraud Parallels with Virus Control with Dorothy Bishop. ASAPbio, 2025. https://www.youtube.com/watch?app=desktop&v=e_Q4e2kkYSU.
- The Rising Threat of Paper Mills (Anna Abalkina). European Network for Academic Integrity, 2023. <https://www.youtube.com/watch?v=osMaceoDh70>.
- Jennifer Byrne: On Paper Mills and Research Fraud. EVClub: Extracellular Vesicle Club, 2023. <https://www.youtube.com/watch?v=5SADTFSGVul>.
- Paper Mills and Research Misconduct: Facing the Challenges of Scientific Publishing. House Science, Space, and Technology Committee, 2022. <https://www.youtube.com/watch?v=MzgDYXUXMaY>.
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Thank you!
Questions?

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