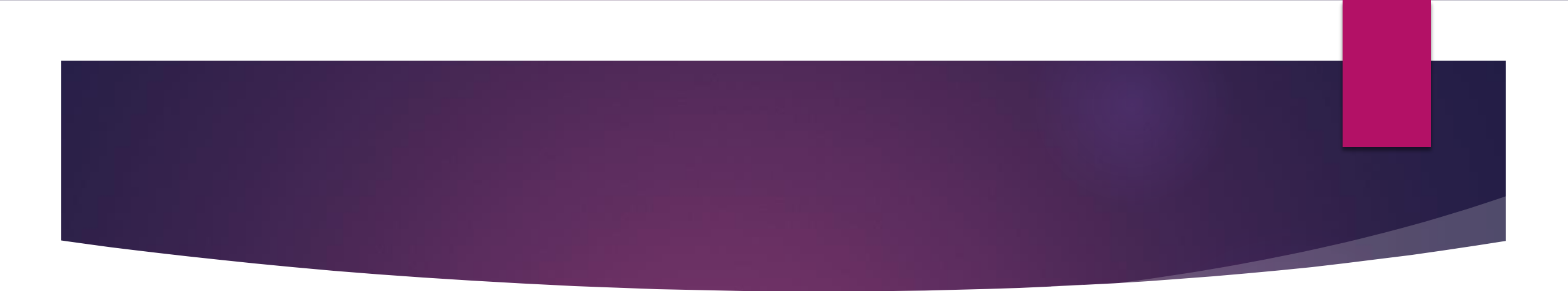


# Principles of ethics of using AI in research and publication

Provided by Dr. Ali Poormohammadi  
Faculty Member of Occupational Hygiene Engineering  
Director of Journal Office Umsha Press

- 
1. Should AI tools be used to support research writing tasks?
  2. Should AI systems be attributed or designated as authors or co-authors of research papers?
  3. How should issues of plagiarism and originality be addressed when using AI in the research writing process?
  4. What transparency and privacy guidelines are needed for the responsible use of AI in research writing?
  5. Should human oversight and control be required for AI-generated outputs in academic writing?
- ▶ To answer these questions, we reviewed the perspectives of scholars published in academic databases and policy statements of prominent publishers.

# Committee on Publication Ethics

- COPE (Committee on Publication Ethics) is committed to educating and supporting editors, publishers and those involved in publication ethics



## COPE Forum

COPE Members: if you have publication ethics issue on your desk that you're finding difficult to resolve, send it to COPE for discussion and advice at the next Forum on 23 March, 2pm (GMT).

Submit your  
case &  
register

کمیته اخلاق انتشار یا **COPE (The Committee on Publication Ethics)** را در سال ۱۹۹۷ گروه کوچکی از ویراستاران نشریه در انگلستان تأسیس کردند که در حال حاضر بیش از ۱۰,۰۰۰ عضو در سراسر جهان در تمام زمینه‌های دانشگاهی دارد. عضویت در این پایگاه برای سردبیران نشریات علمی و دیگر علاقه‌مندان به اخلاق نشر مجاز است. این کمیته برای ویراستاران و ناشران در تمام جنبه‌های اخلاق انتشار و به‌ویژه نحوه رسیدگی به پرونده‌های تحقیق و سوءرفتار، همچون مشاور است. این کمیته انجمنی برای اعضای خود برای بررسی و بحث در مورد موارد خاص فراهم می‌کند؛

## Case

On-going

### Request to remove an author post-publication

2021

A paper was submitted to a journal by authors A and B. The paper was accepted and then published in the journal. Several months after final publication, author A contacted the journal asking for their name and their biography to be removed from the article. Author A stated that they wished to distance themselves from the research. Author B also contacted the journal separately to...

- ✓ Allegations of misconduct
- ✓ Authorship and contributorship

# Guidance in COPE

## Flowcharts

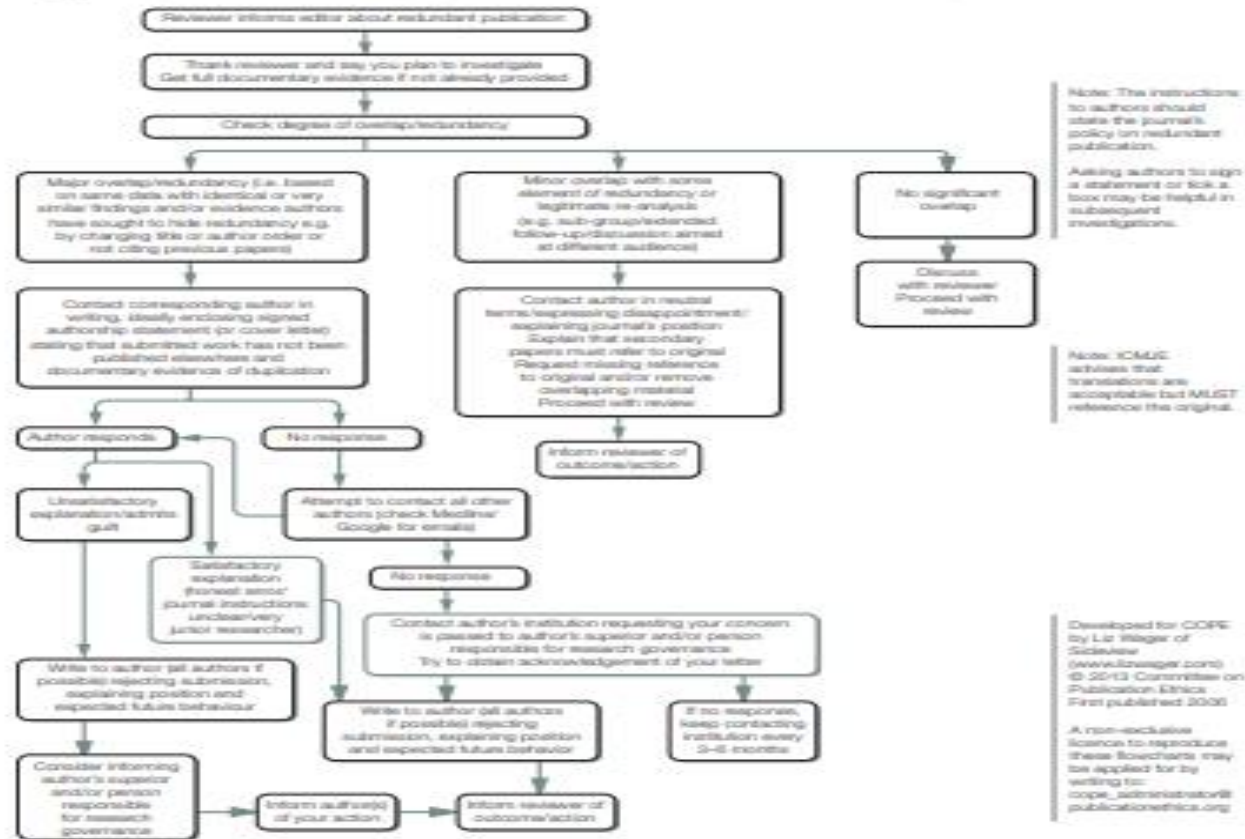
### What to do if you suspect peer review manipulation

COPE's flowchart on what to do if you suspect peer review manipulation either during the peer review process or after publication. Related resource [How to spot potential manipulation of the peer review process...](#)

- ✓ [Allegations of misconduct](#)
- ✓ [Peer review processes](#)

[View web version](#)[Download PDF](#)

What to do if you suspect redundant (duplicate) publication  
 (a) Suspected redundant publication in a submitted manuscript



Note: The instructions to authors should state the journal's policy on redundant publication. Asking authors to sign a statement or tick a box may be helpful in subsequent investigations.

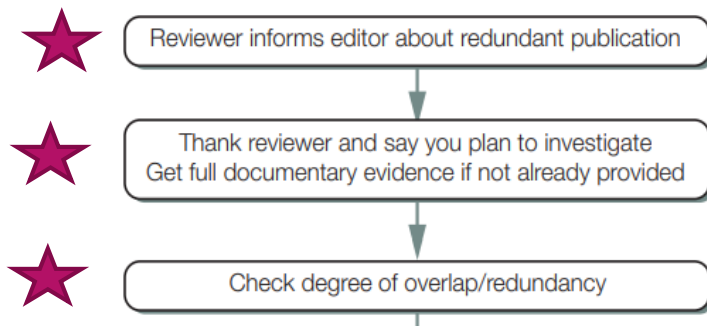
Note: ICMIJ advises that translations are acceptable but MUST reference the original.

Developed for COPE by Liz Wager of Science (www.lizwager.com) © 2013 Committee on Publication Ethics First published 2009

A non-exclusive license to reproduce these flowcharts may be applied for by writing to: cope\_administrators@publicationethics.org

## What to do if you suspect redundant (duplicate) publication

### (a) Suspected redundant publication in a submitted manuscript



Note: The instructions to authors should state the journal's policy on redundant publication.

# COPE position statement



- ▶ The use of artificial intelligence (AI) tools such as Chat GPT or Large Language Models in research publications is expanding rapidly. COPE joins organisations, such as WAME and the JAMA Network among others, to state that **AI tools cannot be listed as an author of a paper.**
- ▶ AI tools cannot meet the requirements for authorship as they cannot take responsibility for the submitted work. As non-legal entities, they cannot assert the presence or absence of conflicts of interest nor manage copyright and license agreements.
- ▶ Authors who use AI tools in the writing of a manuscript, production of images or graphical elements of the paper, or in the collection and analysis of data, **must be transparent in disclosing in the Materials and Methods** (or similar section) of the paper how the AI tool was used and which tool was used. Authors are fully responsible for the content of their manuscript, even those parts produced by an AI tool, and are thus liable for any breach of publication ethics.

Many journals currently adhere to the guidelines of the International Committee of Medical Journal Editors (ICMJE), which has established **four criteria** that each author of a paper should meet:

- Significant involvement in study conception/design, data collection, or data analysis/interpretation;
- Involvement in drafting or revising manuscript;
- Approval of final version of manuscript for publication; and
- Responsibility for accuracy and integrity of all aspects of research.

# AUTHOR CONTRIBUTIONS FORM



**Individuals claiming authorship should meet all 3 of the following conditions in accordance with the**

**“Consensus Statement on Surgery Journals Authorship—2005”:**

- 1) Authors make substantial contributions to conception and design, and/or acquisition of data, and/or analysis and interpretation of data;
- 2) Authors participate in drafting the article or revising it critically for important intellectual content; and
- 3) Authors give final approval of the version to be submitted and any revised version.

# CRedit author statement

- ▶ CRedit (Contributor Roles Taxonomy) was introduced with the intention of recognizing individual author contributions, reducing authorship disputes and facilitating collaboration. The idea came about following a 2012 collaborative workshop led by Harvard University and the Wellcome Trust, with input from researchers, the International Committee of Medical Journal Editors (ICMJE) and publishers, including Elsevier, represented by Cell Press.
- ▶ CRedit offers authors the opportunity to share an accurate and detailed description of their diverse contributions to the published work.
- ▶ The corresponding author is responsible for ensuring that the descriptions are accurate and agreed by all authors
- ▶ The role(s) of all authors should be listed, using the relevant above categories
- ▶ Authors may have contributed in multiple roles
- ▶ CRedit in no way changes the journal's criteria to qualify for authorship

# Author's contributions

## Conceptualization

Ideas; formulation or evolution of overarching research goals and aims

## Methodology

Development or design of methodology; creation of models

## Software

Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components

## Validation

Verification, whether as a part of the activity or separate, of the overall replication/ reproducibility of results/experiments and other research outputs

## Formal analysis

Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data

## Investigation

Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection

## Resources

Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools

## Data Curation

Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later reuse

## Writing - Original Draft

Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation)

## Writing - Review & Editing

Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre- or postpublication stages

## Visualization

Preparation, creation and/or presentation of the published work, specifically visualization/ data presentation

## Supervision

Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team

## Project administration

Management and coordination responsibility for the research activity planning and execution

Funding acquisition

Acquisition of the financial support for the project leading to this publication

# Sample CRediT author statement

- ▶ **Zhang San:** Conceptualization, Methodology, Software **Priya Singh.:** Data curation, Writing- Original draft preparation. **Wang Wu:** Visualization, Investigation. **Jan Jansen:** Supervision.: **Ajay Kumar:** Software, Validation.: **Sun Qi:** Writing- Reviewing and Editin

➤ In a study conducted by Nazish Masud et al.,: develop and validate an objective and comprehensive authorship scoring system for determining the order of authorship in a scientific publication:

- ▶ This 13-item scoring system provides a validated and practical guide for determining the order of authorship for scientific publications as show in the next slide:

**Masud, N., et al, (2020). Development and Validation of Authorship Order Score (AOS) for Scientific Publication. Health Professions Education.**

# Authorship Order Score

440

*N. Masud et al. / Health Professions Education 6 (2020) 434–443*

Table 5  
Summary of the agreement and weightage of the final 13 items (N = 132).

Items	Mean score	Agreement		Weightage <sup>a</sup>
		Frequency	Percentage	
Manuscript writing	4.4	129	92%	9
Study concept/Research question	4.4	127	90%	9
Proposal writing	4.2	124	89%	9
Study design	4.3	121	86%	9
Identifying aims and objectives	4.2	121	86%	8
Interpretation and finalization of results	4.3	119	86%	8
Literature review	4.1	114	81%	8
Editing and critical revision of manuscript	4.0	100	71%	7
Performing statistical analysis	3.8	100	71%	7
Data collection	3.8	99	71%	7
Data management	3.8	97	70%	7
Instrument selection or construction	3.7	98	70%	7
Correspondence with journal	3.5	73	53%	5
Total weightage				100

<sup>a</sup> Items are arranged in descending order based on their weightage.

# Who should be the first author?

۱۶

- The first author is usually the person who has made the most significant intellectual contribution to the work, in terms designing the study, acquiring and analyzing data from experiments, and writing the manuscript.
- The importance of the first author is reflected in the common practice of referring to a paper by the first author's name e.g. 'Jones et al. report that...' Publishing a paper as the first author is very crucial for the scientific career of a Ph.D. student.
- Most Ph.D. programs worldwide require a Ph.D. student to have at least one first-authored paper in order to qualify for a degree.
- So an authorship dispute would be inevitable if two Ph.D. students were to work on the same project for their degree. For post-doctoral researchers and senior professors, publishing first-authored papers is important for receiving funding and getting promoted or re-hired
- Thus, the first name in an author list is the most sought-after position in a scientific publication.

- ▶ After the first author, the subsequent authors are usually listed as per their contribution to the research, starting with the one who contributed the most to the least.
- ▶ Sometimes multiple authors may have contributed equally, in which case the order of author names does not matter, and you can inform the journal editor of this.
- ▶ In order to avoid any authorship dispute, it is a good practice to discuss authorship and the order of authors at the beginning of the project itself, and keep a record of each of the contributors involved throughout the project.

# What is the role of a corresponding author?



- At the time of submission of a manuscript, journals require you to choose one of the authors as the corresponding author.
- The corresponding author is the one who receives all notifications from the journal including manuscript status, reviewers' comments, and the final decision.
- Although journals usually perceive the role of a corresponding author as purely administrative, this role is associated with seniority in some cultures.
- The corresponding author is often the group leader or a senior researcher whose contact address is **not likely to change in the near future**.
- In cases where the main contributor of the study is also the group leader, he or she can be both the first and corresponding author for the study.

# سامانه اخلاق در پژوهش های زیست پزشکی

سامانه اخلاق در پژوهش های زیست پزشکی

وزارت بهداشت، درمان و آموزش پزشکی

کارگروه وزارتی اخلاق در پژوهش    کمیته های اخلاق تابعه    آیین نامه ها    حیوانات آزمایشگاهی    منابع    سوابق    ورود

English

جستجوی منوی



نکات مهم و قابل توجه  
در ارزشیابی کارگروه های اخلاق در پژوهش دانشگاه/دانشکده های علوم پزشکی



چهارمین شماره گاهنامه اخلاق در پژوهش

گاهنامه اخلاق در پژوهش

مشاهده

شماره ۴ اردیبهشت ماه ۱۴۰۴



ملاحظات اخلاقی نحوه استفاده از هوش مصنوعی در تهیه آثار پژوهشی



# سامانه اخلاق در پژوهش های زیست پزشکی

## وزارت بهداشت، درمان و آموزش پزشکی

اخبار | کارگاهها | نشستها

آخرین طرح های مصوب | آخرین پایان نامه های مصوب

متاسفانه

دومین بر نامه ملی آموزش و توانمندسازی کارشناسان کارگروه/کمیته های اخلاق در پژوهش کشور برگزار شد

سومین شماره گاهنامه اخلاق در پژوهش

چهارمین شماره گاهنامه اخلاق در پژوهش به همت کارگروه وزارتی اخلاق در پژوهش منتشر شد

بیشتر...

آخرین طرح های مصوب

۱۴۰۴/۹/۱۵ بررسی حساسیت زایی بالینی و هیپوآلرژنسیستی  
دستمال مرطوب پاک کننده کودک با نام تجاری...  
۱۴۰۴/۹/۱۵ اجرای پوشش تغذیه انحصاری با شیر مادر در ایران، سال ۱۴۰۴  
۱۴۰۴/۹/۱۵ مواجهه با آلودگی هوای بیرون در طی حاملگی بر خطر سقط جنین خود به خودی: یک بررسی سیستماتیک...  
۱۴۰۴/۹/۱۵ سوابق ات حفاظت، اس. گانگکنه کاتشیا، بی. بیستر...

آخرین پایان نامه های مصوب

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دستمال مرطوب پاک کننده کودک با نام تجاری...  
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۱۴۰۴/۹/۱۵ سوابق ات حفاظت، اس. گانگکنه کاتشیا، بی. بیستر...

متاسفانه

دومین بر نامه ملی آموزش و توانمندسازی کارشناسان کارگروه/کمیته های اخلاق در پژوهش کشور برگزار شد

سومین شماره گاهنامه اخلاق در پژوهش

چهارمین شماره گاهنامه اخلاق در پژوهش به همت کارگروه وزارتی اخلاق در پژوهش منتشر شد

بیشتر...

کارگروه وزارتی اخلاق در پژوهش | کمیته های اخلاق تابعه | آیین نامه ها | حیوانات آزمایشگاهی | منابع | سوابق | ورود

دستورالعمل نحوه تشکیل، روش کار و شرح وظایف کارگروه/کمیته های اخلاق در پژوهش

پیشنامه ها

راهنمای اخلاقی عمومی و اختصاصی

سایر راهنماها و دستورالعمل های کشوری

فرمها

شماره گاهنامه اخلاق در پژوهش

# سامانه اخلاق در پژوهش های زیست پزشکی

وزارت بهداشت، درمان و آموزش پزشکی

## راهنمای کشوری

## اخلاق در انتشار آثار پژوهشی

مجلس تخصصی اخلاق  
کمیته اخلاق  
۱۷/۱۴۱۳

آیین نامه ها « راهنماهای اخلاقی عمومی و اختصاصی:

عنوان	
راهنمای عمومی اخلاق در پژوهش های علوم پزشکی دارای آزمودنی انسانی (کدهای ۳۱ گانه)	
راهنمای اخلاقی کار آزمایش های بالینی	
راهنمای اخلاقی پژوهش بر گامت و رویان	
راهنمای اخلاقی پژوهش های ژنتیک پزشکی	
راهنمای اخلاقی در پژوهش بر سلول های بنیادی و پزشکی بازساختی	
راهنمای اخلاقی پژوهش بر روی عضو و بافت انسانی	
راهنمای اخلاقی پژوهش بر گروه های آسیب پذیر	
راهنمای اختصاصی پژوهش های علوم پزشکی مرتبط با HIV/AIDS	
راهنمای کشوری اخلاق در انتشار آثار پژوهشی	

# شرایط نویسندگی مقالات مطابق با راهنمای کشوری در انتشار آثار پژوهشی

## فصل ۱: شرایط نویسندگی مقالات و آثار علمی

ماده ۱-۱: فردی نویسنده یک مقاله محسوب می‌شود که چهار شرط زیر را به طور همزمان دارا باشد. شرط‌های ۱ و ۲ دارای زیرمجموعه‌هایی هستند که بین آن‌ها عبارت "یا" وجود دارد که نشان دهنده این امر است که دارا بودن هر یک از آن‌ها جهت حصول شرط‌های ۱ یا ۲ کفایت می‌کنند. بین شرط‌های اصلی ۱ تا ۴ عبارت "و" وجود دارد که تأکید می‌کند نویسنده مقاله باید هر چهار شرط ۱ و ۲ و ۳ و ۴ را به صورت همزمان دارا باشد:

**شرط ۱:** فرد باید همکاری مؤثر و قابل توجهی در حداقل یکی از زیرمجموعه‌های زیر داشته باشد:

الف: ارائه ایده پژوهشی

یا

ب: طراحی مطالعه

یا

ج: جمع آوری داده‌ها

یا

د: آنالیز و تفسیر داده‌ها

# شرایط نویسندگی مقالات مطابق با راهنمای کشوری در انتشار آثار پژوهشی

**شرط ۲:** فرد باید در نوشتن نسخه اولیه دستنوشته و یا در بازبینی و مرور نقادانه آن همکاری کند، به گونه‌ای که متن از لحاظ محتوای علمی دستخوش تغییر و تکامل شود. واضح است افرادی واجد این شرط می‌شوند که صلاحیت علمی لازم برای مرور نقادانه را بر اساس تجربه علمی و سابقه تحصیلی یا کاری خود داشته باشند.

**شرط ۳:** فرد باید نسخه‌ی نهایی دستنوشته را قبل از انتشار مطالعه و آن را تأیید کرده‌باشد.

**شرط ۴:** باید مسؤولیت پاسخگویی در مقابل کلیه جنبه‌های انجام پژوهش منجر به مقاله از جمله مسؤولیت رعایت دستورالعمل‌ها و راهنماهای عمومی و اختصاصی اخلاق در پژوهش مصوب وزارت بهداشت، درمان و آموزش پزشکی در طراحی، انجام و انتشار مقاله را بپذیرد، به گونه‌ای که بتواند به کلیه‌ی سؤال‌های مطرح‌شده در مورد صحت محتوای پژوهش و نوشتار آن پاسخ دهد. فرد باید یا خود مراحل گوناگون کار را با رعایت استانداردهای علمی، فنی و اخلاقی انجام داده باشد و یا از درستکاری و توانمندی علمی کسانی که مراحل مختلف کار را انجام داده‌اند اطمینان خاطر داشته باشد.

# شرایط نویسندگی مقالات مطابق با راهنمای کشوری در انتشار آثار پژوهشی

## ▶ تبصره ۱:

▶ حذف نام فرد یا افرادی که شرایط چهارگانه نویسندگی مقاله را دارا باشند از لیست نویسندگان (نویسنده پنهان) ممنوع است.

## ▶ تبصره ۲:

▶ اضافه کردن نام فرد یا افرادی که شرایط چهارگانه نویسندگی را دارا نیستند، در لیست نویسندگان (نویسنده مهمان) ممنوع است.

## ▶ تبصره ۳:

▶ مسؤولیت اخلاقی و حقوقی ذکر نام افرادی که بدون داشتن همه شرط های نویسندگی نامشان در زمره نویسندگان مقاله آمده و یا با وجود داشتن شرط های نویسندگی نامشان از لیست نویسندگان حذف شده اسیت با همه نویسندگان مقاله می باشد.

# شرایط نویسندگی مقالات مطابق با راهنمای کشوری در انتشار آثار پژوهشی

► تبصره ۴:

► الزام به دارا بودن شرایط نویسندگی در مورد تیم های پژوهشی که دارای اعضای متعدد می باشند نیز صدق می کند و صرف عضویت در گروه پژوهشی و یا وجود نام فرد به عنوان همکار طرح پژوهشی شرایط الزم برای نویسنده بودن را ایجاد نمیکند، اگرچه تمام افرادی که معیارهای مندرج در شرط ۱ ماده ۱-۱ را دارند، حتی اگر همکاری خود را با آن مرکز یا تیم پژوهشی قطع کرده باشند، الزم است با رعایت سایر شرایط نویسندگی، فرصت مشارکت به عنوان نویسنده را پیدا کنند و سابقه این موضوع باید به صورت مکتوب ثبت شود.

# شرایط نویسندگی مقالات مطابق با راهنمای کشوری در انتشار آثار پژوهشی

## ▶ تبصره ۵:

در مقالاتی که از پایاننامه های دانشجویی منتج میشوند نیز، نویسندگان اعم از دانشجوی مربوطه، استاد(ان) راهنما، استاد(ان) مشاور و غیره باید کلیه ی شروط چهارگانه ذکر شده در ماده ۱-۱ را دارا باشند.

## ▶ تبصره ۶:

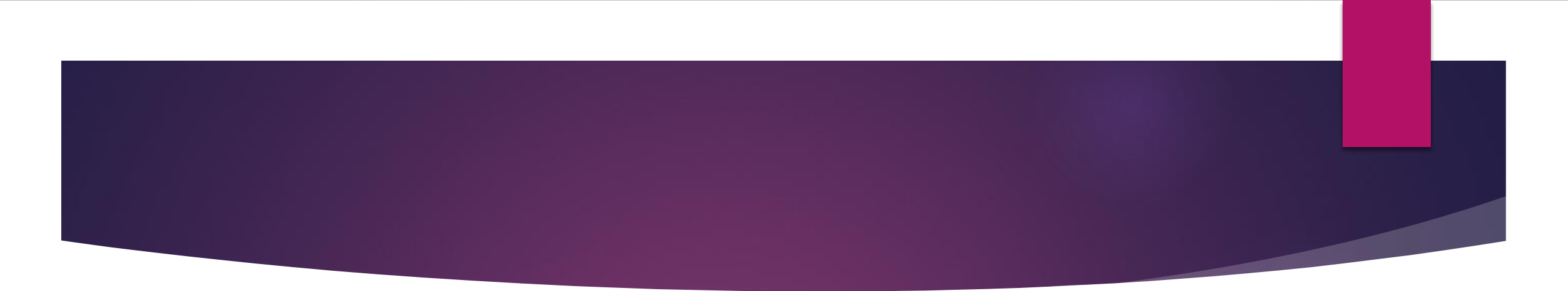
▶ صرف همکاری در اموری مانند تهیه و تامین بودجه پژوهشی، ارائه ی مشاوره های مقطعی از جمله مشاوره آماری و روش شناسی، ایجاد یا در اختیار قرار دادن امکانات آزمایشگاهی، انجام آزمایشات مربوط به بیماران یا نمونه های پژوهشی و یا ارجاع و معرفی بیماران به پژوهشگران برای شرکت در پژوهش، شرایط کافی برای درج نام انجام دهنده در لیست نویسندگان مقاله منتج از فعالیت پژوهشی را ایجاد نخواهد کرد؛ حتی اگر افراد حق الزحمه ای برای ارا هی خدمت میذکور دریافیت نکرده باشند.

## ▶ تبصره ۷ :

▶ از کلیه افرادی که در حمایت، طراحی، اجرا، نوشتن یا سایر مراحل تحقیق و پژوهش همکاری داشته اند ولی همه ی چهار شرط لازم جهت نویسندگی را دارا نمی باشند، باید در قسمت "تقدیر و تشکر" مقاله سپاسگزاری شود.

## ▶ تبصره ۸ :

▶ فردی که فقط مترجم یا ویراستار دست نوشته است دارای شرایط نویسندگی نیست. در موردی که ترجمه متن توسط مترجمی غیر از نویسندگان انجام می شود الزم است این موضوع در بخش "تقدیر و تشکر" اشاره شود و از مترجم سپاسگزاری شود.



▶ نوآوری های پیشرفته، به ویژه هوش مصهنوعی (AI) به عنوان موتور محرکه نوآوری و تحول در حوزه های مختلف از جمله پزشکی، صنعت، تجارت و حتی هنر، نقش به سزایی ایفا می کنند. در حوزه پژوهش فناوری ها با ارائه ابزارهایی مانند ChatGPT، Grammarly و Spotify امکان تحول داده ها با دقت و سرعت بیشتر را فراهم کرده اند.

# Direct quotation, paraphrasing & referencing

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- ▶ **Quoting** means copying a piece of text word-for-word. The copied text must be introduced in your own words, enclosed in quotation marks, and correctly attributed to the original author:
- ▶ For example:
- ✓ According to Cronon, the concept of wilderness is a cultural invention: **“Far from being the one place on earth that stands apart from humanity, it is quite profoundly a human creation—indeed, the creation of very particular human cultures at very particular moments in human history”** (1995, p. 69).

# Direct and Indirect Quotation

- ▶ As we know there are two ways of incorporating other people's ideas. The first is direct quotation (as we had an example in the previous slide).
- ▶ **Indirect quotation or paraphrasing** is the second way to incorporate what another author has said into your own text. This is known as indirect quotation or paraphrasing.

# Paraphrasing

- ▶ **For example:**
- ▶ We are going to paraphrase the following result:
- ▶ The original sentence in conclusion of published paper:
- ▶ “Even at an exposure concentration lower than 3.25 mg/m<sup>3</sup>, benzene exposure has genotoxicity.”
- ▶ **Paraphrased from:** In a similar study, it was found that exposure to benzene even at low concentration (> 3.25 mg/m<sup>3</sup>) has genotoxicity effects.

# Can you paraphrase the highlighted sentence?

## ► Conclusion

Coronavirus can sustain for a long time on various surfaces which is a major reason for its transmission. This virus can contaminate on different metal surfaces and stay on them from hours to days, with a maximum span on plastic and stainless and least on the copper surface. The alcohol-based disinfectants can significantly reduce the survival and decay time of the virus. ***The two important coronaviruses (SARS-CoV-2 and SARS-CoV-1) have significant sustaining time on different metal surfaces, and their behaviours is almost similar on various metal surfaces and in aerosols.***

- ▶ The two important coronaviruses (SARS-CoV-2 and SARS-CoV-1) have significant sustaining time on different metal surfaces, and their behaviours is almost similar on various metal surfaces and in aerosols.
- ▶ ***Paraphrased from***
- ▶ SARS-CoV-1 and SARS-CoV-2 as two major types of coronaviruses have a high sustaining time on various metal surfaces and in aerosols.

## دستورالعمل استفاده از ابزارهای هوش مصنوعی در پژوهش

### مقدمه

هوش مصنوعی مولد، می‌تواند ابزار کمکی مفیدی برای پژوهشگران باشد و به تسریع و تسهیل فرایندهای پژوهشی کمک کند. در عین حال استفاده از آن باید با شفافیت، مسئولیت‌پذیری و رعایت اخلاق علمی همراه باشد. استفاده ناصحیح از این ابزارها می‌تواند منجر به اشکالاتی همانند سرقت ادبی، انتشار اطلاعات نادرست یا نقض حقوق مالکیت فکری شود.

هدف از تدوین این شیوه‌نامه که با بررسی موارد مشابه مانند توصیه‌نامه بوتسکو در مورد اخلاق هوش مصنوعی (۲۰۲۱)، راهنمای اتحادیه اروپا برای استفاده مسئولانه از هوش مصنوعی مولد در پژوهش (۲۰۲۵) و گزارش شورای تحقیقات جهانی (GRC) با عنوان ابعاد ارزیابی پژوهش مسئولانه (2024) تدوین شده، ایجاد چارچوبی منسجم، شفاف و اخلاقی برای استفاده از ابزارهای هوش مصنوعی در تمامی مراحل پژوهش (پروپوزال، طرح، اجرا، گزارش و داوری) توسط پژوهشگران و داوران همکار با بنیاد ملی علم ایران است.

### الف) اصول کلی

✓ رعایت اخلاق علمی: استفاده از هوش مصنوعی نباید منجر به تقلب علمی، سرقت ادبی یا مسائلی از این دست شود.

✓ شفافیت: تمامی موارد استفاده از هوش مصنوعی باید به صورت دقیق در پروپوزال، گزارش و مقالات ذکر شود.

✓ پاسخگویی حقوقی و اخلاقی: استفاده‌کننده از هوش مصنوعی مسئولیت تهاپی محتوا و نتایج آن را بر عهده دارد.

✓ عدم جایگزینی انسان با ماشین: هوش مصنوعی تنها بک ابزار کمکی است و نباید جایگزین خلاقیت، تفکر انتقادی و مسئولیت پژوهشگر شود.

✓ حفظ حریم خصوصی و امنیت داده‌ها: استفاده از هوش مصنوعی نباید منجر به افشای اطلاعات شخصی، محرمانه یا داده‌های حساس شود.

### ب) توصیه‌های عملیاتی برای پژوهشگران

استفاده از ابزارهای هوش مصنوعی در مراحل مختلف پژوهش بلامانع است، به شرطی که:

✓ منبع استفاده از ابزار به صورت مشخص ذکر شود (نام ابزار، نسخه، تاریخ استفاده).

✓ خروجی‌های دریافت شده از طریق هوش مصنوعی قبل از استفاده باید مورد بازنگری، اعتبارسنجی و تأیید

علمی قرار گیرد.

- ✓ از ابزارهایی استفاده شود که از لحاظ امنیتی و حریم خصوصی، قابل اعتماد باشند.
- ✓ در صورت استفاده از هوش مصنوعی به عنوان ابزار کمکی، عنوان شود که «این بخش با کمک ابزار X تولید شده است».
- 1. در پروپوزال‌های پژوهشی پژوهشگران موظفند:
  - ✓ در صورت برنامه‌ریزی برای استفاده از هوش مصنوعی در طرح اصلی، این موضوع را در بخش روش‌شناسی اعلام کنند.
  - ✓ دلایل استفاده از هوش مصنوعی، مزایای آن و نحوه مدیریت ریسک‌های احتمالی را شرح دهند.
- 2. در گزارش‌های پژوهشی استفاده از هوش مصنوعی در:
  - ✓ تولید متن: باید مشخص شود.
  - ✓ تولید تصویر یا نمودار: باید منبع و نحوه تولید ذکر شود.
  - ✓ تحلیل داده: باید روش استفاده و اعتبار آن شرح داده شود.
- ج) موارد منع استفاده از ابزارهای هوش مصنوعی**  
در زمینه تولید محتوا:
  - ✓ استفاده مستقیم از خروجی‌های هوش مصنوعی بدون بازنگری و اعتبارسنجی.
  - ✓ استفاده از هوش مصنوعی برای تولید بخش‌های کلیدی پژوهش (مانند تولید داده‌های اصلی، یافته‌ها، بحث و نتیجه‌گیری) بدون مشارکت واقعی پژوهشگر.
  - ✓ استفاده از هوش مصنوعی به جای نقل‌قول یا استناد به منبع (سرقت ادبی محقی).
  - ✓ استفاده از هوش مصنوعی برای تولید منبع یا استناد غیرواقعی.
- در زمینه تحلیل داده:
  - ✓ استناد به نتایج تحلیل داده‌های هوش مصنوعی بدون اعتبارسنجی و تأیید علمی.
  - ✓ استفاده از هوش مصنوعی در اجرای آزمون‌های آماری بدون دانش کافی از نحوه محاسبه و محدودیت‌های آن.
  - ✓ استفاده از هوش مصنوعی برای دستکاری داده‌های اصلی یا تولید داده‌های ساختگی.
- در زمینه تولید تصویر یا نمودار:
  - ✓ استفاده از تصاویر تولیدی هوش مصنوعی در بخش‌های تحقیقاتی اصلی بدون ذکر منبع.
  - ✓ استفاده از تصاویر تولیدی هوش مصنوعی به عنوان نتیجه نهایی یک آزمایش یا مشاهده واقعی.



بنیاد ملی حقوق مالکانه

✓ استفاده از تصاویر تولیدی هوش مصنوعی به شکلی که موجب گمراهی خواننده شود.

در زمینه حریم خصوصی و امنیت:

✓ وارد کردن داده‌های شخصی، محرمانه یا حساس به ابزارهای هوش مصنوعی آنلاین.

✓ استفاده از ابزارهای هوش مصنوعی بدون اطمینان از رعایت مقررات حفظ حریم خصوصی.

✓ استفاده از ابزارهای هوش مصنوعی که تحت نظارت قانونی نیستند یا مقررات داخلی را نقض می‌کنند.

#### د) مسئولیت پژوهشگر در استفاده از هوش مصنوعی

استفاده از ابزارهای هوش مصنوعی به عنوان یک ابزار کمکی در پژوهش، همواره باید تحت نظارت و مسئولیت کامل پژوهشگر قرار گیرد. بنابراین:

✓ پژوهشگر مسئول تهایب محتواست: حتی اگر محتوایی با کمک هوش مصنوعی تولید شده باشد، پژوهشگر

مسئول صحت علمی، دقت، منطبق بودن با اخلاق پژوهش و سازگاری با اهداف پروژه است.

✓ عدم انتقال مسئولیت به ماشین: هوش مصنوعی قادر به درک مفاهیم عمیق علمی، اخلاقی یا اجتماعی نیست.

بنابراین تصمیم‌گیری تهایب و تفسیر نتایج، باید به عهده پژوهشگر باشد.

✓ پاسخگویی در برابر نهاد حامی: در صورت وجود هرگونه نقض اخلاقی، اشتباه علمی یا مشکل حقوقی ناشی

از استفاده از هوش مصنوعی، پژوهشگر مسئول اصلی خواهد بود.

✓ آگاهی از محدودیت‌های ابزارها: پژوهشگران موظفند با محدودیت‌های ابزارهای هوش مصنوعی (مانند

احتمال خطای اطلاعاتی، سوگیری، عدم قابلیت اعتماد در منابع) آشنا باشند و از آن‌ها با دقت استفاده کنند.

#### ه) توصیه‌های عملیاتی برای داوران / ناظران

مسئولیت داوران / ناظران:

✓ استفاده از هوش مصنوعی در متن پروپوزال و تیز گزارش‌ها را بررسی کرده و در صورت عدم اعلام آن، اظهار نظر کنند.

✓ اطمینان حاصل کنند که استفاده از هوش مصنوعی منجر به نقض اخلاقی علمی نشده است.

✓ در صورت تردید در معتبر بودن محتوای تولیدی توسط هوش مصنوعی، درخواست منبع یا بازنگری اضافی دهند.

✓ از اعمال تعصب نسبت به استفاده از هوش مصنوعی خودداری کنند، به شرطی که استفاده صحیح و متعهدانه باشد.

موارد منع استفاده از هوش مصنوعی در زمینه داوری / نظارت:

## 56% detected as AI ⓘ

The percentage indicates the combined amount of likely AI-generated text as well as likely AI-generated text that was also likely AI-paraphrased.

### ☰ Submission Breakdown



#### 1 AI-generated only

Likely AI-generated text from a large-language model.

24%



#### 2 AI-generated text that was AI-paraphrased

Likely AI-generated text that was likely revised using an AI-paraphrase tool or word spinner.

32%



بنیاد ملی علم ایران

✓ بارگذاری متن کامل پروپوزال یا گزارش طرح در سامانه‌های هوش مصنوعی.

✓ استفاده از هوش مصنوعی به جای داوری/ نظارت علمی و تخصصی.

✓ اعتماد کامل به نظرات یا تحلیل‌های ارائه شده توسط هوش مصنوعی در مورد کیفیت پژوهش.

✓ استفاده از هوش مصنوعی برای ارزیابی اخلاقی یا توآوری پژوهش بدون بررسی انسانی.

**ی) نحوه ارجاع و ذکر استفاده از هوش مصنوعی در پروپوزال‌ها و گزارش‌های پژوهشی**

✓ نحوه ذکر استفاده از هوش مصنوعی در پروپوزال و گزارش پژوهش:

بخش روش‌شناسی: نحوه استفاده از هوش مصنوعی در جمع‌آوری داده، تحلیل، طراحی ابزارها یا نگارش متون باید توضیح داده شود.

بخش اخلاقی پژوهش: باید ذکر شود که استفاده از هوش مصنوعی مطابق با اصول اخلاقی و این شیوه‌نامه بوده و موارد مربوط به حریم خصوصی و داده‌های حساس، رعایت شده است.

✓ نحوه ارجاع در متن:

در صورت استفاده از هوش مصنوعی به عنوان ابزار کمکی، باید در متن به صورت زیر ارجاع داده شود:

این بخش تصویر... با کمک ابزار [نام ابزار] در تاریخ [تاریخ استفاده] تولید شده است.

مثال: این مقدمه با کمک ابزار ChatGPT نسخه 4 در تاریخ 10 اردیبهشت 1403 تولید شده و سپس توسط پژوهشگر، بازنگری و تکمیل گردید.

در صورت استفاده از تصاویر یا نمودارهای تولیدی توسط هوش مصنوعی، باید در بالای شکل یا در عنوان آن ذکر شود: تصویر فوق با استفاده از ابزار Midjourney v5 تولید شده است.

✓ نحوه ذکر در فهرست منابع:

در صورت لزوم، می‌توان در پایان گزارش یا پروپوزال بخشی با عنوان «ابزارهای مورد استفاده از هوش مصنوعی» اضافه کرد:

- OpenAI. (2023). ChatGPT [Version 4]. <https://chat.openai.com>
- Dev, S., et al. (2023). Midjourney v5.

توضیح تکمیلی: در تدوین این دستورالعمل، از Qwen به عنوان ابزار کمکی به منظور بهبود ساختار منطقی، زبانی و روایی متن استفاده شده است. با این حال، کلیه محتوای نهایی این سند پس از بازبینی، اصلاحات لازم، توسط بنیاد ملی علم ایران مورد تأیید قرار گرفته است.

<https://www.nature.com/articles/nature.2016.20916>

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### **Cull of papers follows similar discoveries in 2015.**

A tranche of [58 articles](#) authored by 282 Iran-based researchers were retracted today by a leading scientific publisher, which said it had found signs that the peer review and publication processes had been compromised.

BioMed Central (BMC) will retract 28 articles and investigate another 40, whereas Springer will pull 30 papers and investigate another 9. Both organizations are run by *Nature's* publisher, Springer Nature. (*Nature's* news and comment team is editorially independent of the publisher).

All the papers that Springer is retracting showed evidence of authorship manipulation and peer-review manipulation, and 70% showed evidence of plagiarism. For the BMC papers, all showed evidence of authorship manipulation, 57% showed evidence of peer-review manipulation and 93% showed evidence of plagiarism, says BMC spokeswoman Amy Bourke-Waite.

Last year, Springer [retracted 64 articles](#) over concerns that they had been compromised by 'fake peer-review' schemes, in which fabricated peer-review reports were submitted from bogus e-mail addresses linked to the names of real scientists, and BMC [withdrew another 43](#) for similar reasons earlier in 2015. Several other major publishers have reported [similar discoveries of fake peer review](#).

# nature

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NEWS | 12 December 2023

## More than 10,000 research papers were retracted in 2023 – a new record

The number of articles being retracted rose sharply this year. Integrity experts say that this is only the tip of the iceberg.

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# Nature reports

- ▶ According to recent analysis conducted by Nature, the number of retractions issued in 2023 has surpassed previous annual records, with the worse offenders being from large research-publishing nations such as **Saudi Arabia, Pakistan, Russia, and China**. These countries have had the highest retraction rates over the last two decades.
- ▶ The publisher **Hindawi**, a London-based subsidiary of Wiley, has been responsible for most of the retractions to date. This year, the publisher has retracted over 8,000 articles due to what it believes are compromises to the **peer-review process**. This investigation was prompted by internal editors and research-integrity investigators who raised concerns about irrelevant references in thousands of papers, as well as incoherent text.

# A rise in fraudulent efforts

- ▶ The big issue, according to Richard Van Noorden of Nature, is “Retractions are rising at a rate that outstrips the growth of scientific papers.”
- ▶ To investigate this, Nature combined the number of retractions collated by the media organization Retraction Watch with another 5,000 retractions from Hindawi and other publishers, with the help of the [Dimensions](#) database.
- ▶ “Nature’s analysis suggests that the retraction rate – the proportion of papers published in any given year that go on to be retracted – has more than trebled in the past decade. In 2022, it exceeded 0.2 [percent].”
- ▶ Among the countries that have had the highest numbers of retractions (more than 100,000 in the last 20 years), Saudi Arabia is the highest scoring with “30 per 10,000 articles” being retracted (excluding retractions based on conference papers).

# The reasons of recent retraction:

Retraction or Other Notices Title/Subject(s)/Journal — Publisher/Affiliation(s)/Retraction Watch Post URL(s)	Reason(s)	Author(s)	Original Paper Date/PubMedID/DOI
<b>23 Item(s) Found</b>			
Possible mechanisms involved in the protective effects of chrysin against lead-induced cognitive decline: An in vivo study in a rat model (BLS) Biochemistry; (BLS) Biology - Cellular; (BLS) Toxicology; <i>Biomedicine &amp; Pharmacotherapy</i> — Elsevier	+Duplication of Image +Investigation by Journal/Publisher +Investigation by Third Party		11/16/2022 36402029 10.1016/j.biopha.2022
Department of Neuroscience, School of Science and Advanced Technologies in Medicine, Hamadan University of Medical Sciences, Hamadan, Iran			
Neurophysiology Research Center, Hamadan University of Medical Sciences, Hamadan, Iran			
Asadabad School of Medical Sciences, Asadabad, Iran			
Department of Basic Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Ahvaz, Iran			
Student Research Committee, Asadabad School of Medical Sciences, Asadabad, Iran			
Silymarin prevents apoptosis through inhibiting the Bax/caspase-3 expression and suppresses toll like receptor-4 pathway in the SNC of 6-OHDA intoxicated rats (BLS) Biochemistry; (BLS) Biology - Cellular; (BLS) Toxicology; <i>Biomedicine &amp; Pharmacotherapy</i> — Elsevier	+Concerns/Issues About Image +Duplication of Image +Investigation by Journal/Publisher +Investigation by Third Party		05/15/2018 29772432 10.1016/j.biopha.2018.05.020
Department of Pharmacology and Toxicology, School of Pharmacy, Hamadan University of Medical Sciences, Hamadan, Iran			
Herbal Medicine and natural product Research Center, Hamadan University of Medical Sciences, Hamadan, Iran			
Drug Applied Research Center, Tabriz University of Medical Sciences, Tabriz, Iran			
Department of Pharmacology and Toxicology, Faculty of Pharmacy, Tabriz University of Medical Sciences, Tabriz, Iran			
Students Research Center, Hamadan University of Medical Sciences, Hamadan, Iran			
Neuronal degeneration and oxidative stress in the SNC of 6-OHDA intoxicated rats; improving role of silymarin long-term treatment (BLS) Biology - Cellular; (BLS) Neuroscience; (BLS) Toxicology; <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> — Springer	+Duplication of Image +Euphemisms for Duplication +Investigation by		07/27/2020 32715318 10.1007/s00210-020-01954-7

# What is the tool to detect image manipulation?


۲۵

- ▶ Image integrity proofing software Proof ig AI, for example, uses computer vision and AI to scan a manuscript and compare images in minutes, flagging any potential issues. Forensic editors can then investigate further, using the tool to find instances of **cut and paste, deletions, or other forms of manipulation**

# A free online tool for identifying image/figure manipulations

I created a new, better tool to analyze digital images. It's also free and web based. It features error level analysis, clone detection and more. You should try it right now.

Forensically<sup>beta</sup> Open File Help



Clone Detection

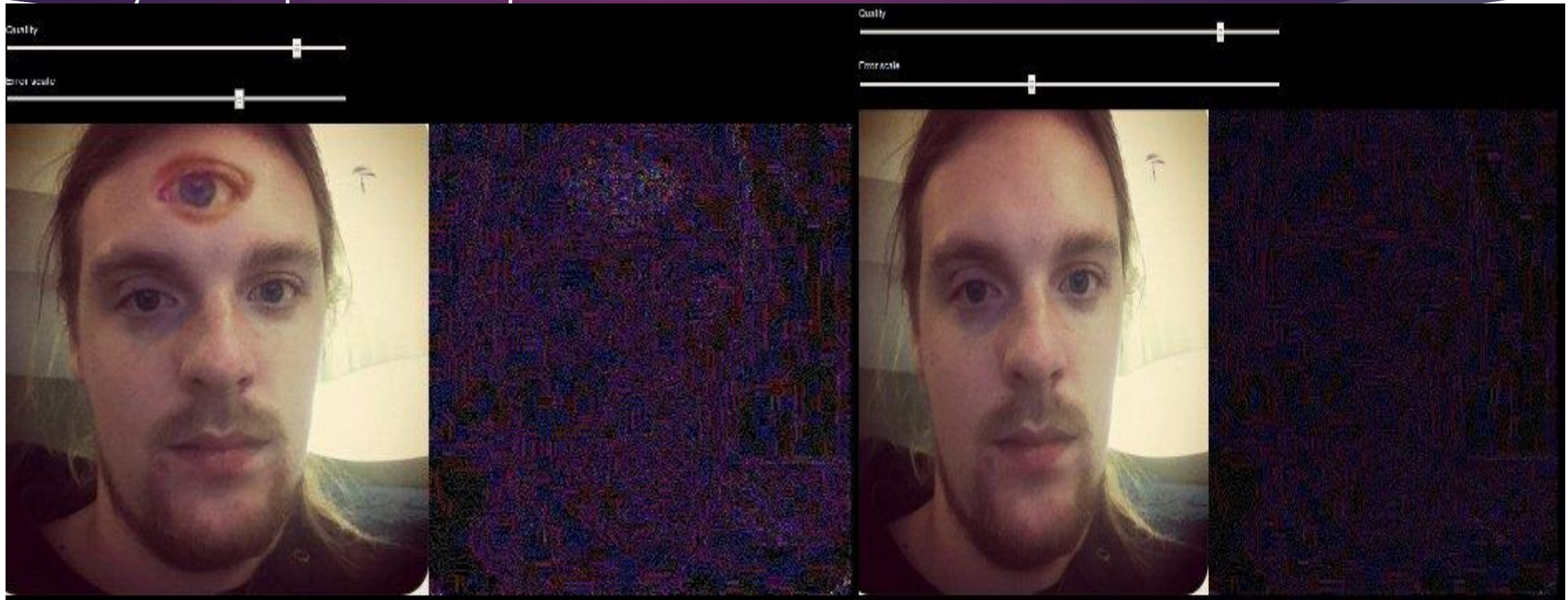
- Minimal Similarity: 0.54
- Minimal Detail: 0.14
- Minimal Cluster Size: 4
- Block Size: 3
- Maximal Image Size: 512
- Show Quantized Image:

Error Level Analysis

Meta Data

Open Forensically

Image error level analysis is a technique that can help to identify manipulations to compressed (JPEG) images by detecting the distribution of error introduced after resaving the image at a specific compression rate.



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۲۹

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Journal of Industrial and Engineering Chemistry

Volume 53, 25 September 2017, Pages 1-22



Review

## A review on conducting polymer reinforced polyurethane composites

Halima Khatoon , Sharif Ahmad  

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# HOW TO RECOGNISE POTENTIAL MANIPULATION OF THE PEER REVIEW PROCESS

## Peer reviewers may be suggested by:

- the Editor handling the manuscript.
- authors on submission of their manuscript to a journal.
- another reviewer who is unable to peer review the manuscript.

While there is an expectation that everyone involved in the process acts with integrity <sup>(Ref 1)</sup>, the peer review process can be susceptible to manipulation <sup>(Ref 2-4)</sup> as discussed at COPE's 2016 North American Seminar. <sup>(Ref 5)</sup>

The features or patterns of activity shown opposite are suggested to help Editors recognise potential signs of peer review manipulation. Often it is the occurrence of these features in combination that may indicate a potential issue, and they may only become apparent at later stages in the peer review or publishing process.

## Relevant COPE Cases:

Case 11-27: Author Creates Bogus Email Accounts for Proposed Reviewers  
<http://bit.ly/2eT0mVm>

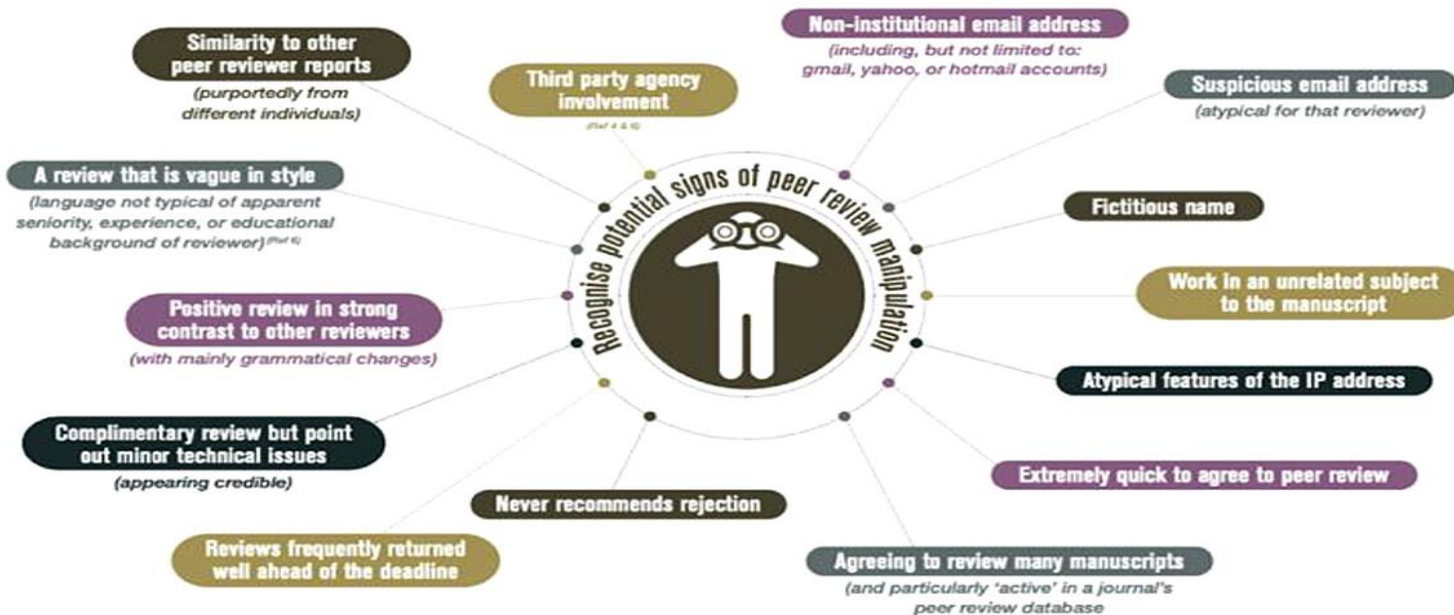
Case 12-12: Compromised Peer Review in Published Papers  
<http://bit.ly/2wVLkKU>

Case 12-16: Compromised Peer Review (Unpublished)  
<http://bit.ly/2y2O4nv>

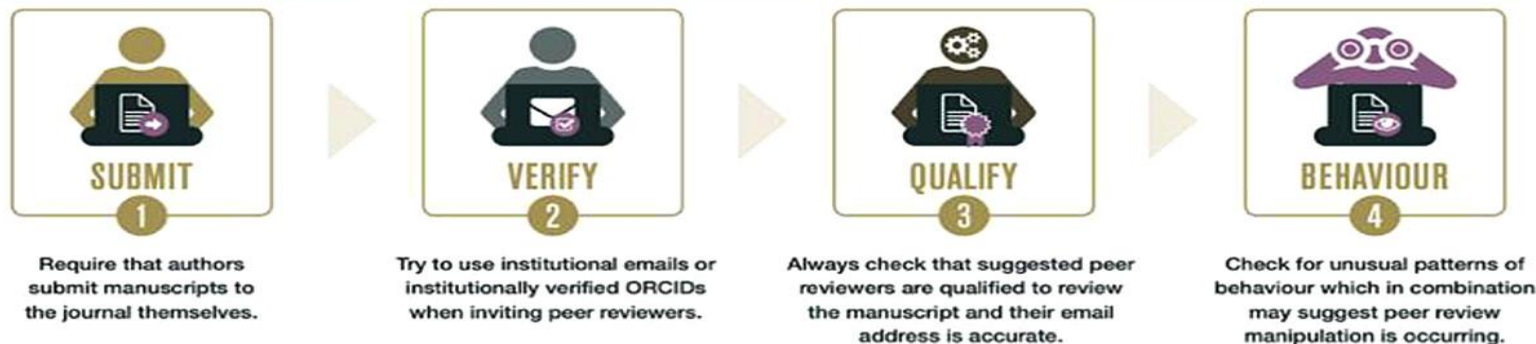
## References:

1. COPE Ethical Guidelines to Peer Review.  
<http://bit.ly/2xZcZrk>
2. COPE Statement on Inappropriate Manipulation of Peer Review Processes.  
<http://bit.ly/2f2NRMw>
3. Who Reviews the Reviewers? Jigisha Patel  
<http://bit.ly/1AgfKDC>
4. Inappropriate Manipulation of Peer Review. Elizabeth Moylan  
<http://bit.ly/2w64bTN>
5. Can You Spot a Fake? The Trend of Fake Peer Reviews. Alison McCook  
 Who Reviews the Reviewers?  
 Kristen Overstreet  
 Peer Review Manipulation. New Challenges and New Solutions.  
 Jigisha Patel  
<http://bit.ly/2vSjZoY>
6. Organised Crime Against the Academic Peer Review System.  
 Adam Cohen et al  
<http://bit.ly/1UmlH7Y>

## Recognised Features or Patterns of Reviewer Activity



## Best Practice to Minimise Peer Review Manipulation



# DEPRIVATION OF INDEXATION: HOW AND WHY A WELL-KNOWN JOURNAL WAS EXCLUDED FROM WEB OF SCIENCE?

HOME - BLOG - DEPRIVATION OF INDEXATION: HOW AND WHY A WELL-KNOWN JOURNAL WAS EXCLUDED FROM WEB OF SCIENCE?



# Retraction watch report

## Retraction Watch

Tracking retractions as a window into the scientific process

GET RETRACTION WATCH  
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GET OUR  
NEWSLETTER

Get the latest news from Retraction Watch and beyond Monday through Friday, plus Weekend Reads each Saturday.

hing secure connection...

## Seventeen journals lose impact factors for suspected citation manipulation

Clarivate, the company that calculates Journal Impact Factors based on citations to articles, didn't publish the metric for 17 journals this year due to suspected citation manipulation. That's a substantial increase from last year, when only four were excluded.



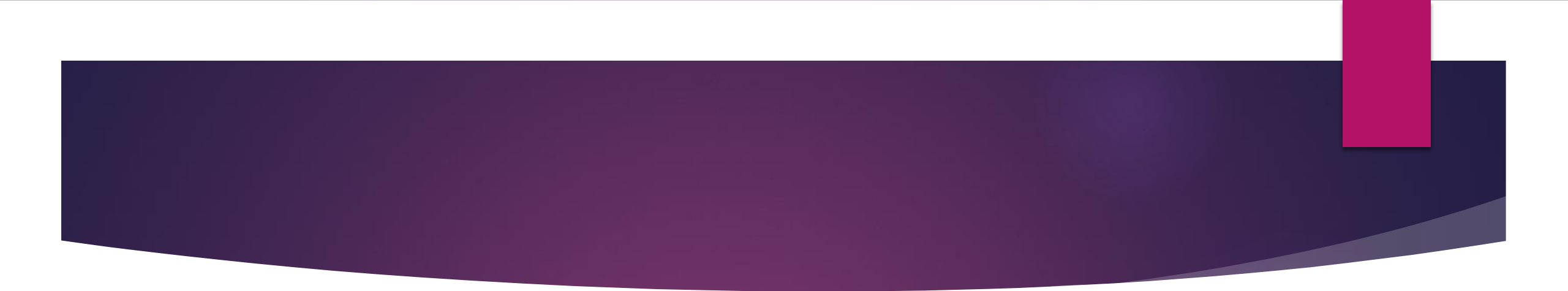
# Retraction watch report

The increase is, in part, case of rising tides lifting (sinking?) all boats: In its 2024 Journal Citation Reports, Clarivate included an additional 7,200 journals from the Emerging Sources Citation Index (ESCI) and the the Arts and Humanities Citation Index (AHCI), a spokesperson for the company said, resulting in a larger number of impact factor suppressions than in past years.

Clarivate suppressed nearly twice as many journals in 2020, when it penalized 33 for self-citation. The company suppressed 10 in 2021, and three the following year.

In an email to Retraction Watch, a spokesperson said journals are suppressed from the report due to “anomalous citation behavior, including where there is evidence of excessive journal self-citation and/or citation stacking (which involves two or more journals). We do not presume a motive or accuse these journals of wrongdoing.”



- 
- ▶ Rostyslav Vlokh, editor-in-chief of Ukrainian Journal for Physical Optics, told us the reason his journal was suppressed was because of the “abnormally large number of citations (46%) for our journal in 2023” that came from *Optik* journal. He denied that his journal had any control over the “editorial politics” of *Optik*.



# High profile chemistry journal removed from Web of Science index

- ▶ high-profile Elsevier chemistry journal, Chemosphere, has been removed from Clarivate's Web of Science index for failing to meet editorial quality criteria. This means Clarivate will no longer index papers from Chemosphere, count their citations or give the title an impact factor.
- ▶ Problems at the journal can be traced back to last year when eight articles were retracted in December 2024 and, in May 2024, it was highlighted that over 60 articles published by Chemosphere had had an expression of concern added to them. Reasons given varied from article to article but included unusual changes to the authorship of the article prior to publication and potential citation manipulation.
- ▶ Chemosphere also recently came under fire for a study published in September last year on high levels of flame retardants in black plastic cooking utensils that received extensive media coverage. On 15 December the authors of the study published a correction explaining that they had miscalculated human exposure to flame retardants. Exposure was actually an order of magnitude lower than the safe daily reference dose, not approaching it, as they had initially reported.
- ▶ Clarivate made the decision to remove Chemosphere, which had an impact factor of 8.1 in 2023, from its Web of Science index on 16 December for failing to meet editorial quality criteria. Delisting has a direct impact on the journal and particularly authors, as it can affect quantitative calculations of researchers' output which are often used as a metric in hiring, tenure and promotion decisions. Delisted journals are also likely to have problems attracting authors.

# A sample of retracted paper using AI

Volume 10, Issue 4, 29 February 2024, e25754

## RETRACTED: Application of artificial intelligence (AI) to control COVID-19 pandemic: Current status and future prospects

Sumel Ashique <sup>a</sup>, Neeraj Mishra <sup>b</sup>, Sourav Mohanta <sup>c</sup>, Ashish Garg <sup>d</sup>,  
Farzad Taghizadeh-Hesary <sup>e,f</sup>, B.H. Jaswanth Gowda <sup>g</sup>, Dinesh Kumar Chellappan <sup>h</sup>

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<https://doi.org/10.1016/j.heliyon.2024.e25754>

Open access

This article has been retracted: please see Elsevier policy on article withdrawal (<https://www.elsevier.com/about/policies-and-standards/article-withdrawal>).

This article has been retracted at the request of the Editor-in-Chief.

An investigation conducted on behalf of the journal by Elsevier's Research Integrity & Publishing Ethics team found phrases that make some passages in the article difficult to parse. The authors were requested to explain the use of these passages of text but were unable to do so. The Editor has lost confidence in the findings of the article and has determined that it should be retracted.

The authors disagree with retraction and dispute the grounds for it.

This article has been retracted: please see Elsevier policy on article withdrawal (<https://www.elsevier.com/about/policies-and-standards/article-withdrawal>).

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The authors disagree with retraction and dispute the grounds for it.

# Reasons for retraction

- ▶ The retraction notices on all these papers read the same: “The Editor-in-Chief has retracted this article. An investigation by the Publisher found that **a number of articles, including this one, that comment on research published in the Journal were submitted over a short space of time and show strong indications that the text was generated by a large language model (LLM) without proper disclosure by the authors.** These articles are therefore in breach of the Journal’s editorial policy and are being retracted.” As the retraction notice says, the Editor-in-Chief and the publisher had already decided to retract the Commentaries and all the authors were only informed of the journal’s decision and the content of the retraction notice.
- ▶ **Admitting to using an “AI tool (ChatGPT) mostly for editing and refining the language of the published article”,** Dr. Jeyachandran from Saveetha University says in an email to the journal: **“I realised that I did not disclose the use of an AI language model, specifically ChatGPT, in the preparation of the manuscript. This oversight was due to a lack of awareness at the time of submission,** and I now understand the importance of transparency in this regard.” Apologising for the oversight, Dr. Jeyachandran had requested that an erratum be published by citing similar instances in journals by other publishers, which was not entertained by the journal.
- ▶ “We have used AI-based tools to enhance the language clarity and structural presentation of the manuscripts (as per the journal policy). These tools were employed purely for linguistic refinement, not for generating scientific ideas.

# An example of incorrect citation in my article

٤٠

Dear Prof. .

let me introduce myself. My name is . and I'm co-author together with Prof. Elisa Vincenzi of the paper: "Ghezzi S, Pagani I, Poli G, Perboni S, Vicenzi E (2020) Rapid inactivation of severe acute respiratory syndrome coronavirus 2 (SARS- CoV-2) by tungsten trioxide-based (WO3) photocatalysis. bioRxiv" which for your information I'm attaching to this mail.

Our paper has been cited by your review published in Environmental Science and Pollution Research entitled. "Are photocatalytic processes effective for removal of airborne viruses from indoor air? A narrative review".

Reading carefully the paper I've noticed that in the Table 1 for our technology the photocatalytic activity has been written to be triggered by a UV-LAMP source which is absolutely not the case. Our filter is working under VISIBLE LIGHT.

Since this, compared to all the other photocatalytic methods, is an innovative approach, I'm officially asking you to submit to the editor an ERRATA CORRIGE document in which is underlined the different technology used.

Thank you so much for your collaboration

Best regards



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2  
weeks

### A natural experiment on the effect of herpes zoster vaccination on dementia

Markus Eytting, Min Xie, Felix Michalik, Simon Heß, Seunghun Chung, Pascal Geldsetzer

ago

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weeks  
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### Optimal structural design of helicopter components using tornado optimizer with Coriolis forces

Betül Sultan Yıldız, Pranav Mehta, Ali Riza Yıldız

Materials Testing (2025)

1 comment

1 day  
ago

### How modulation of the tumor microenvironment drives cancer immune escape dynamics

Pujan Shrestha, Zahra S. Ghoreyshi, Jason T. George

Scientific Reports (2025)

6 comments

3  
weeks  
ago

### Dose effects of oxaliplatin on persistent and transient Na<sup>+</sup> conductances and the development of neurotoxicity

Susanna B. Park, Cindy S-Y. Lin, Arun V. Krishnan, David Goldstein, Michael L. Friedlander, Matthew C. Kiernan

PLOS One (2011)

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2 comments ×

# Pub peer

There seem to be multiple unsubstantiated statements by the authors. Three of which I illustrate below.


At the same time, our analysis reveals that many of these tools are still in early stages of development. Current AI-generated text detectors vary in accuracy and remain vulnerable to paraphrasing and genre-shifting adversarial attacks. Similarly, tools designed to detect scientific errors or misconduct require further validation before they can be reliably applied in high-stakes settings such as manuscript screening or academic evaluations. Biases in training data and variation across disciplines also pose challenges to their generalizability.

In conclusion, the development of tools and technologies for detecting the unethical use of generative AI and identifying errors in scientific literature represents a promising step toward safeguarding research integrity in the AI era. These systems offer valuable support for editors, reviewers, and institutions by flagging potential issues and streamlining quality control. However, they continue to face significant limitations in terms of accuracy, consistency, and contextual understanding. As such, they should not yet be relied upon to automate the evaluation or judgment of researchers' work. Human oversight remains essential, and these technologies should serve as complementary aids rather than standalone solutions in research assessment and editorial decision-making.


The authors only tested 2 detectors and they both failed to work after a single tool (AI Undetect) was used to hide the AI traces. What variation in accuracy was demonstrated?

The tested detectors failed >90% of the time after the AI traces were put through AI Undetect. How is this "valuable support."

The tested detectors failed >90% of the time after the AI traces were put through AI Undetect. How is this an "aid."

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In the whole 'silk series' there are only two papers that actually test the superior wound healing:

1. Hybrid Bionanocomposite Containing Magnesium Hydroxide Nanoparticles Embedded in a Carboxymethyl Cellulose Hydrogel Plus Silk Fibroin as a Scaffold for Wound Dressing Applications
2. Investigation of the biological activity, mechanical properties and wound healing application of a novel scaffold based on lignin–agarose hydrogel and silk fibroin embedded zinc chromite nanoparticles

The result can be admired below:

#### Hybrid Bionanocomposite Containing Magnesium Hydroxide...

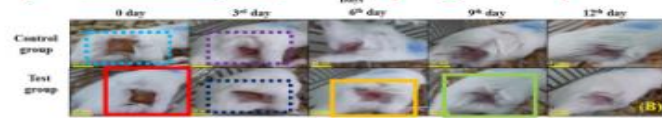
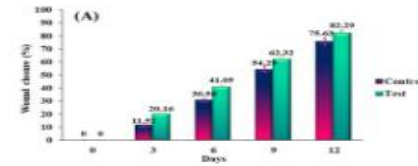


Figure 5S (A) The percentage of wound healing on each day. (B) Images of wounds on different days of treatment in test and control groups.



#### Investigation of the biological activity, mechanical...

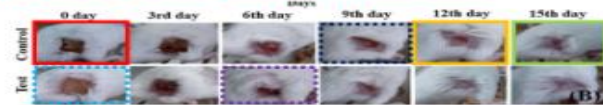
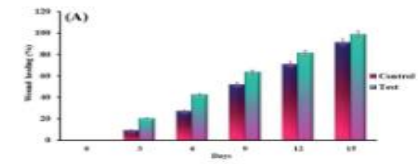


Fig. 5 (A) The percentage of wound healing on each day. (B) Images of wounds on different days of treatment in test and control groups.

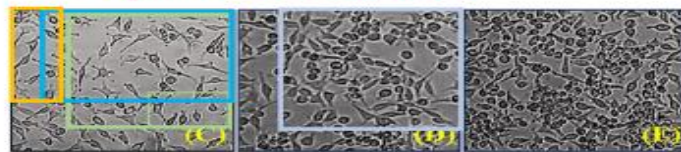


The nanobiocomposites need to be biocompatible. One way the authors show this is by providing microscopy images of Hu02 cells that are either untreated or treated with nanobiocomposite. They should survive the latter and hence the treatment image should look like the control. The authors achieve this in remarkable ways:

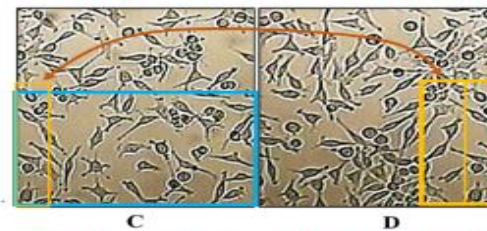
10.1038/s41598-020-80133-3, Fig. 7



10.1021/acsami.1c07285, Fig. 4



10.1038/s41598-022-10212-0, Fig. 7



10.1016/j.jbiotec.2022.09.002, Fig. 6



As a reader I can only see authors. Take the first author of this paper, Reza Eivazzadeh-Keihan. He is also aut on [this paper](#) where not only SEM images are mixed-up, but also a TEM image from a paper from a different is hijacked/plagiarized and passed of as something else (image in green is 'reproduced' and repurposed from unrelated Scientific Reports paper):

### Facile route to synthesize $\text{Fe}_3\text{O}_4@\text{acacia}-\text{SO}_3\text{H}$ nanocomposite as a heterogeneous magnetic system for catalytic applications†

Reza Taheri-Ledari, Mir Saeed Esmaeili, Zahra Varzi, Reza Eivazzadeh-Keihan, Ali Maleki and Ahmed Esmal Shalan

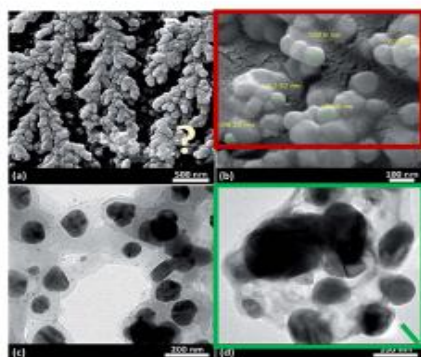
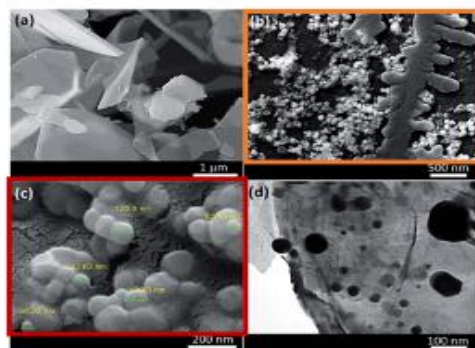


Fig. 6. (a) and (b) Field emission scanning electron microscopy and (c) and (d) transmission electron microscopy images of the fabricated  $\text{Fe}_3\text{O}_4@\text{acacia}-\text{SO}_3\text{H}$  nano-powder.

### Synthesis and characterization of a supported Pd complex on volcanic pumice laminates textured by cellulose for facilitating Suzuki–Miyaura cross-coupling reactions†

Savash Salek Soltani, Reza Taheri-Ledari, S. Morteza F. Faria, Ali Maleki and Alireza Foroumadi



FESM images of (a) neat grinded VPMP, (b) and (c) of the fabricated VPMP@CLC-Pd composite, and (d) TEM image of VPMP@CLC-Pd.

### Cytotoxicity of Ag, Au and Ag-Au bimetallic nanoparticles prepared using golden rod (*Solidago canadensis*) plant extract

Taryn L. Botha, Elias E. Elemike, Suranie Horn, Damian C. Onwudike, John P. Giesy and Victor Wepener

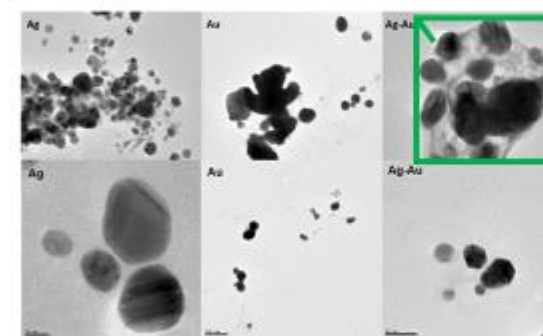
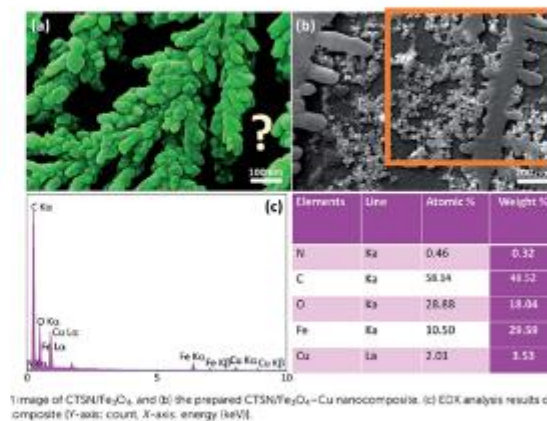


Figure 1. TEM images of green synthesized Ag, Au and Ag-Au bimetallic NPs.

### High-performance sono/nano-catalytic system: CTSN/Fe<sub>3</sub>O<sub>4</sub>-Cu nanocomposite, a promising heterogeneous catalyst for the synthesis of N-arylimidazoles†

Reza Taheri-Ledari, Seyed Masoud Hashemi and Ali Maleki



(a) image of CTSN/Fe<sub>3</sub>O<sub>4</sub>, and (b) the prepared CTSN/Fe<sub>3</sub>O<sub>4</sub>-Cu nanocomposite. (c) EDX analysis results of the composite (Y-axis: count, X-axis: energy [keV]).

Or take author Ali Maleki, who is frequently responding to issues with this 'silk series'. I find him author on for example [this paper](#) that contains the usual repurposed (SEM) images, and also very suspect blots:


#17 *Orchestes quercus* comment accepted April 2024

Dear dr. Madanchi,

Thanks for responding. I see that in the period 2020-2022 you have published 11 papers together with Ali Maleki, 8 of which are now flagged on PubPeer for various image duplications.

In your replies I read that you are not particularly bothered by authoring 8 papers that show re-use and misrepresentation of their underlying data. Like Ali Maleki, you argue that simply leaving out these misrepresented images does not change the conclusion of the paper: the conclusions of the paper are based on the various quantifications presented in tables and figures. And you promise me that the tables and figures are correct.

You also mention that *it is better to engage in scientific criticism*. Please consider my posts as criticizing your scientific methods. Doing serious research requires a certain minimum level

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### Synthesis and characterization of cellulose...

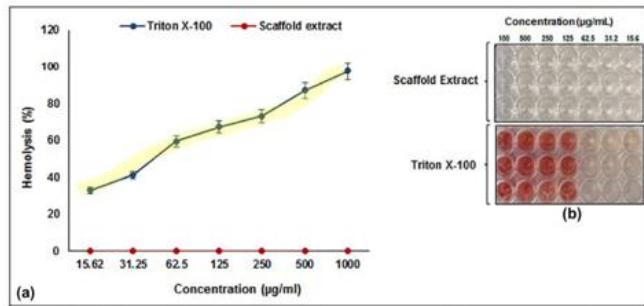


Fig. 4 Hemolysis percentage graph of scaffold extract and Triton X-100 (positive control) at different concentrations (a). b Image of the 96-well plate image for scaffold extract and Triton X-100 at different concentrations with three independent experiments. Hemolysis histogram of positive control, biocomposite (direct treated with

RBCs) and negative control (\*=insignificant,  $P \geq 0.05$ ) (c), comes with a 96-well plate image (d). Microscopic images of RBCs before (e) and after (f) treatment with the Ce1-β.CD/SF/CuCoFe<sub>2</sub>O<sub>4</sub> biocomposite scaffold

### Graphene oxide/alginate/silk fibroin composite...

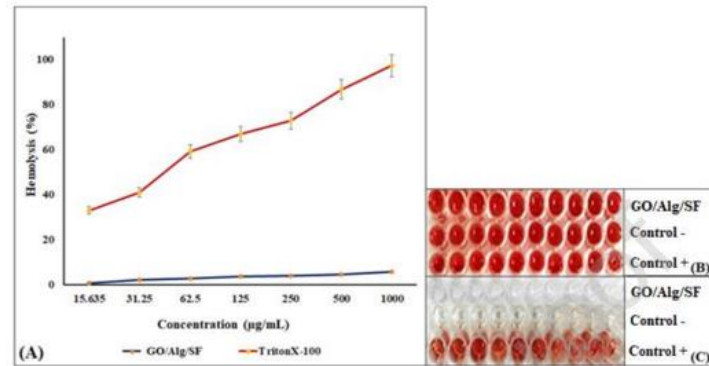


Fig. 7. Hemolysis percentage graph of GO/Alg/SF nanobiocomposite at different concentration (A); hemolysis plate before centrifugation (B), hemolysis plate after soup removal (C) (Triton X100 was used as positive control and physiology serum was used as negative control in this test).




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## AI for scientific integrity: detecting ethical breaches, errors, and misconduct in manuscripts

Frontiers in Artificial Intelligence (2025) - 9 Comments

doi: 10.3389/frai.2025.1644098 issn: 2624-8212

Diogo Pellegrina , Mohamed Helmy 

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### #1 *Actinopolyspora biskrensis* comment accepted September 2025

I'm having a hard time understanding what the purpose is for this paper.

The paper doesn't seem to have a separate Methods section, but I think this fairly summarizes the process used by the authors for their primary experiment:

1. Use AI to generate abstracts for a made-up computer science paper
2. Use two AI detectors to see if they correctly detect that AI was used to generate the abstracts
3. Rewrite the same abstracts with a tool designed to *disguise* AI generated text
4. Use the two detectors again to see if they correctly detect that AI was used to generate the abstracts after the *disguise*

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ظه‌ور یک سرور یری‌پرینت برای انتشار مقالات نوشته‌شده یا  
داوری‌شده توسط هوش مصنوعی

aiXiv

Next-Gen Research

aiXiv is a free, AI- or human-peer-reviewed preprint archive for research authored by  
**Human, Robot** and **AI Scientists** across all scientific fields.

یک سرور یری‌پرینت نوظهور است که مقالات نوشته‌شده یا داوری‌شده توسط هوش مصنوعی را می‌پذیرد و کیفیت را مهم‌تر از هویت نویسنده (انسان یا AI) می‌داند

## aiXiv Next-Gen Research

aiXiv is a free, AI- or human-peer-reviewed preprint archive for research authored by **Human, Robot** and **AI Scientists** across all scientific fields.

- ▶ این پلتفرم برای کاهش فشار بر داوری انسانی، از ۵ عامل (Agent) هوش مصنوعی برای ارزیابی نوآوری (novelty)، صحت فنی (technical soundness) و اثرگذاری بالقوه (potential impact) استفاده می‌کند و داوری را در ۱-۲ دقیقه انجام می‌دهد.
- ▶ aiXiv امکان داوری تکرارشونده بر اساس بازخورد AI را فراهم می‌کند و این فرایند، به گفته سازندگان، کیفیت مقالات (به ویژه آثار AI-محور) را بهبود می‌بخشد.
- ▶ موافقان، آن را راه‌حلی مقیاس‌پذیر برای موج مقالات AI می‌دانند، اما مخالفان نسبت به پژوهش جعلی، داوری سطحی و اغراق در نوآوری نگرانی‌های دارند.

این ابزارها نه تنها کیفیت پژوهش ها را ارتقا می دهند ، بلکه دسترسی به اطلاعات و تبادل دانش را تسهیل می کنند . با این حال ، گسترش استفاده از هوش مصنوعی در پژوهش ها ، چالش های اخلاقی متعددی را به همراه دارد ، از جمله مسائل مربوط به حریم خصوصی ، سوء استفاده از داده ها ، شفافیت و مسئولیت پذیری

## 2. Accuracy and Misinformation

- AI tools, including those that generate presentations, rely on algorithms that fetch and summarize data. However:
- AI can misinterpret data, leading to inaccurate or misleading content.
- Users should **cross-check facts** before using AI-generated slides.

## 3. Over-Reliance on AI

- AI-generated presentations are convenient, but over-reliance on them can:
- Reduce creativity and critical thinking.
- Result in generic content that lacks a personal touch.
- Limit the learning experience for students or professionals who rely solely on AI for their presentations.

# 4. Bias in AI-Generated Content

- ▶ AI learns from existing datasets, which may contain biases. This means:
- ▶ Content generated may reflect cultural, political, or ideological biases.
- ▶ Users must **review and refine** AI-generated slides to ensure fairness and inclusivity.

# 5. Confidentiality and Data Security

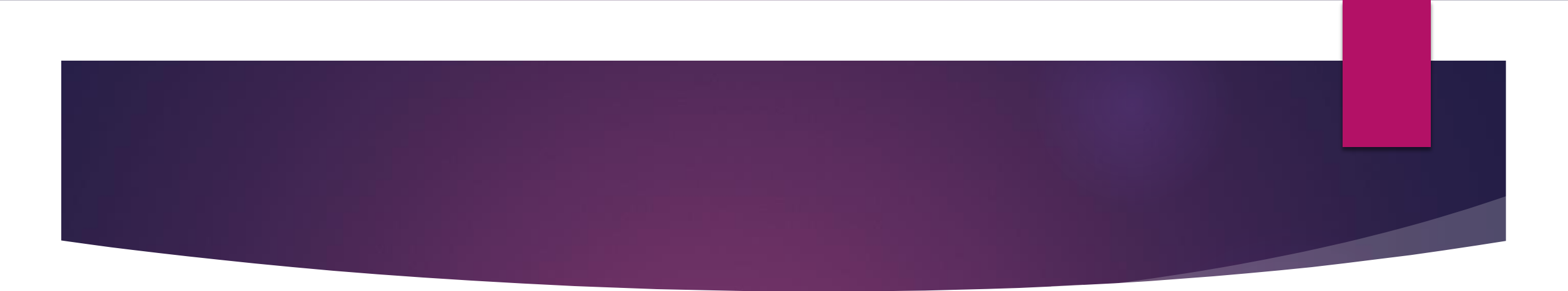
- ▶ When using AI-powered tools, there is a risk of **data privacy** issues, especially if sensitive or proprietary data is used. Users should:
- ▶ Be cautious about sharing **confidential business or academic information** on AI tools.
- ▶ Check the **privacy policies** of the AI presentation tool they are using.

# Text generators

- ▶ Text-based generative AI tools create new text that is similar to the data they were trained on. The training process for these AI chatbots involves consuming large amounts of text from data from webpages, books, and other sources, then analyzing the text to find patterns and relationships in human language. Because of this training process, these tools are commonly referred to as Large Language Models (LLMs). They use probability to predict which words should appear in sequence. As Stephen Wolfram explained, "it's just saying things that 'sound right' based on what things 'sounded like' in its training material."
- ▶ AI chatbots can produce essays, blogs, scripts, news articles, reflective statements, and even poetry.
- ▶ Some chatbots rely on their training data to produce content, while others are grounded in a source of facts.
- ▶ Examples of generative AI that can create text content include: ChatGPT, Google Gemini, Perplexity AI, and Microsoft Copilot.

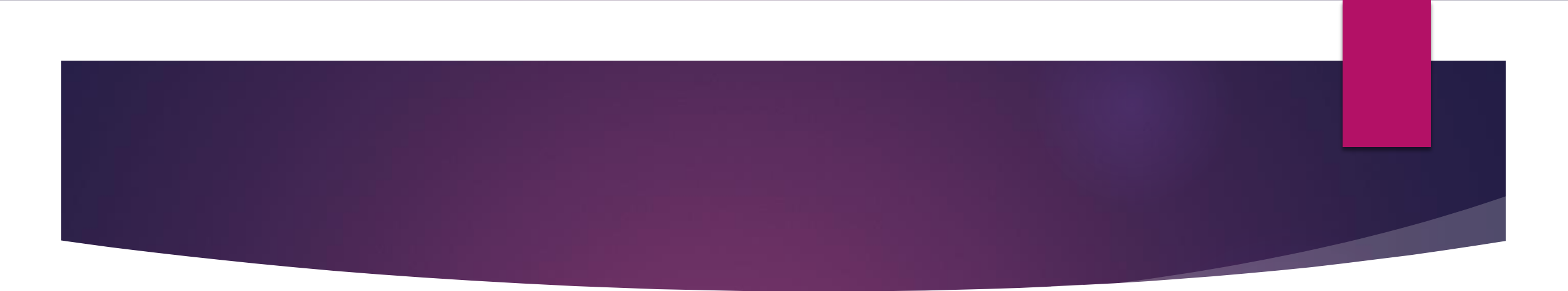
# Acceptability of Using AI in Research Writing

- ▶ All 12 articles reported that AI can be appropriate for research writing, but only if ethical issues related to its use are addressed. The authors expressed concerns about AI-generated information being unreliable and potentially enabling falsified papers, as well as issues of plagiarism, lack of originality, and violations of academic integrity. However, there is agreement that if these ethical concerns can be sufficiently resolved, AI could be a useful addition to the research writing process.

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- ▶ With the exception of Science, which strictly maintains that any work produced entirely by AI (text, figures, images, or graphics) should not be permitted in scientific writing, the remaining publishers posit that AI can be used in research writing with human oversight and that its use must be disclosed in the manuscript. However, publishers also expressed concerns about the use of AI images and figures in research writing.
  - ▶ Springer Nature states that journals should not publish AI-generated images, except when analyzing such media or under proper licensing, due to copyright risks. Elsevier restricts the use of AI to modify figures, requiring all images to be original or properly licensed otherwise.
  - ▶ Overall, publishers emphasize maintaining the integrity of the research process and the authenticity of presented data while stressing transparency around the use of AI tools and retaining human oversight and responsibility over the final published work. They also expressed that they are monitoring ongoing developments regarding the use of AI in research writing and will adjust or refine their policies as appropriate.

# AI Authorship/Co-authorship/Attribution

- ▶ There is consensus that AI should not be listed as an author or coauthor in research because authorship obligations such as accountability, consent, and contractual assurances cannot be transferred to or fulfilled by AI systems. Human authors must take full responsibility for any submitted content and uphold ethical publishing standards. It was generally agreed that, if it is used, AI should be acknowledged in the appropriate section of the manuscript.

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- ▶ Similarly, all the publishers emphasized that AI should not be included as an author or co-author in a research manuscript, because, as a non-legal entity, it cannot take responsibility for the submitted work. This stance is in line with the guidelines of the Committee on Publication Ethics (COPE, 2024). The publishers also maintain that authors must take full responsibility for the content and uphold ethical publishing standards.

# AI Output and Plagiarism

- ▶ Three studies (Flanagin et al., 2023; Hosseini et al., 2023; Thorp, 2023) directly responded to the concern regarding plagiarism. They reported that AI can be regarded as a form of plagiarism only if the author fails to acknowledge any reliance on AI assistance.
- ▶ This is because developers designing AI systems may have trained the models by utilizing ideas and wording from pre-existing human works without consent or attribution (Stanbrook et al., 2023).
- ▶ All maintained that the use of AI must be disclosed. In a similar way, all publishers asserted that failing to acknowledge the use of AI can be considered plagiarism. In that same vein, they stated that if authors sufficiently rework the AI-generated content and properly cite their sources, the use of AI would not be regarded as plagiarism.

# Image generators

- ▶ This type of AI learns through analyzing datasets of images with captions or text descriptions. If it knows what two different concepts are, like a cat and a skateboard, it can merge those concepts together when prompted to create an image of a cat on a skateboard.
- ▶ Generative AI image tools can produce diverse images in a range of media, everything from photorealistic oil painting style to anime.
- ▶ Examples of generative AI that can create imagery include: DALL·E, Midjourney, and Stable Diffusion

# Elsevier policy regarding using AI in manuscript preparation

## **For authors**

The use of generative AI and AI-assisted technologies in manuscript preparation - an overview

Elsevier recognizes the potential of generative AI and AI-assisted technologies (“AI Tools”), when used responsibly, to help researchers work efficiently, gain critical insights fast and achieve better outcomes. Increasingly, these tools, including AI agents and deep research tools, are helping researchers to synthesize complex literature, provide an overview of a field or research question, identify research gaps, generate ideas and provide tailored support for tasks such as content organization and improving language and readability.

Authors preparing a manuscript for an Elsevier journal can use AI Tools to support them. However, these tools must never be used as a substitute for human critical thinking, expertise and evaluation. AI Tools should always be applied with human oversight and control.

## Ultimately, authors are responsible and accountable for the contents of their work. This includes accountability for:

- ▶ Carefully reviewing and verifying the accuracy, comprehensiveness, and impartiality of all AI-generated output (including checking the sources, as AI-generated references can be incorrect or fabricated).
- ▶ Editing and adapting all material thoroughly to ensure the manuscript represents the author's authentic and original contribution and reflects their own analysis, interpretation, insights and ideas.
- ▶ Ensuring the use of any tools or sources, AI-based or otherwise, is made clear and transparent to readers — for the use of AI Tools we require a disclosure statement upon submission.
- ▶ Ensuring the manuscript is developed in a way that safeguards data privacy, intellectual property and other rights, by checking the terms and conditions of any AI Tool that is used.

# Disclosure

Authors should disclose the use of AI Tools for manuscript preparation in a separate AI declaration statement in their manuscript upon submission and a statement will appear in the published work. Authors should document their use of AI, including the name of the AI Tool used, the purpose of the use, and the extent of their oversight. Declaring the use of AI Tools supports transparency and trust between authors, readers, reviewers, editors and contributors and facilitates compliance with the terms of use of the relevant AI Tool. Basic checks of grammar, spelling and punctuation need no declaration. AI use in the research process should be declared and described in detail in the methods section.

# Authorship

- ▶ Authors should not list AI Tools as an author or co-author, nor cite AI Tools as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans. Each (co-) author is accountable for ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved and authorship requires the ability to approve the final version of the work and agree to its submission. Authors are also responsible for ensuring that the work is original and has not been previously published, that the stated authors qualify for authorship, and the work does not infringe third party rights, and should familiarize themselves with Elsevier's [Ethics in Publishing policy](#) before they submit.

# The use of generative AI and AI-assisted tools in figures, images and artwork

- ▶ We do not permit the use of Generative AI or AI-assisted tools to create or alter images in submitted manuscripts. This may include enhancing, obscuring, moving, removing, or introducing a specific feature within an image or figure. Adjustments of brightness, contrast, or color balance are acceptable if and as long as they do not obscure or eliminate any information present in the original. Image forensics tools or specialized software might be applied to submitted manuscripts to identify suspected image irregularities.
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- ▶ The use of generative AI or AI-assisted tools in the production of artwork such as for graphical abstracts is not permitted. The use of generative AI in the production of cover art may in some cases be allowed, if the author obtains prior permission from the journal editor and publisher, can demonstrate that all necessary rights have been cleared for the use of the relevant material, and ensures that there is correct content attribution.

# For reviewers

- ▶ **The use of generative AI and AI-assisted technologies in the journal peer review process**
- ▶ When a researcher is invited to review another researcher's paper, the manuscript must be treated as a confidential document. Reviewers should not upload a submitted manuscript or any part of it into a generative AI tool as this may violate the authors' confidentiality and proprietary rights and, where the paper contains personally identifiable information, may breach data privacy rights.
- ▶ This confidentiality requirement extends to the peer review report, as it may contain confidential information about the manuscript and/or the authors. For this reason, reviewers should not upload their peer review report into an AI tool, even if it is just for the purpose of improving language and readability.

# For editors

- ▶ **The use of generative AI and AI-assisted technologies in the journal editorial process**
- ▶ A submitted manuscript must be treated as a confidential document. Editors should not upload a submitted manuscript or any part of it into a generative AI tool as this may violate the authors' confidentiality and proprietary rights and, where the paper contains personally identifiable information, may breach data privacy rights.

با تشکر از توجه شما

