25 YEARS OF PUBLICATION ETHICS

CREATING A CULTURE OF PUBLICATION INTEGRITY TOGETHER

Dr Trevor Lane, COPE

Forum on good publication practices
University of Macau, 2 December 2022

publicationethics.org

25 YEARS OF PUBLICATION ETHICS

PRESENTER: Trevor Lane, MA, DPhil

Affiliations

- Trustee & Council Member, Committee on Publication Ethics
- Research Enhancement & Development Consultant, City University of Hong Kong
- Trainer, Nature Research Academies, Springer Nature
- Education Consultant, AsiaEdit

https://publicationethics.org/about/council/trevor-lane

Good publication practices

- DeTora LM et al. **Good Publication Practice (GPP) Guidelines for Company-Sponsored Biomedical Research: 2022 Update.** Ann Intern Med. 2022 Sep;175(9):1298-1304. [Open Access]
- Lane T. **Journal publication ethics and implications for life science researchers: a COPE perspective.** Emerg Top Life Sci 2018 Dec 21;2(6):763-767. [Subscription]

Acknowledgement: Some slides in this presentation are based on previous COPE presentations: eg1, eg2, eg3, eg4, eg5

25 YEARS OF PUBLICATION ETHICS

CREATING A CULTURE OF PUBLICATION INTEGRITY TOGETHER: From *'Publish or Perish'* to *'Publish and Nourish'*

Agenda

- About COPE
- Research & publication culture:
  - Publish or perish?
  - Publish and flourish?
  - Publish and nourish
- Authorship issues

25 YEARS OF PUBLICATION ETHICS

ABOUT COPE

- Non-profit established in 1997; operated, managed, and governed by small group of paid employees, with volunteers on **Trustee Board and Council**

- **>13,500 members** from 97 countries:
  - primarily editors of scholarly journals; also:
  - universities and research institutes
  - associated individuals and companies (including editorial and publishing support services)

- COPE brings together all those involved in scholarly research and its publication to strengthen the network of support, education, and debate in publication ethics:
  Creating a culture of publication integrity together

C O P E 25

25 YEARS OF PUBLICATION ETHICS

COPE PURPOSE

> Educate and advance knowledge in methods of safeguarding the integrity of the scholarly record.

COPE VISION

> To create a future in which ethical practice in scholarship is the cultural norm.

OUR MISSION

COPE's mission is built around three core principles:

SUPPORT

Providing practical resources to educate and support our members

LEADERSHIP

Providing leadership in thinking on publication ethics

VOICE

Offering a neutral, professional voice in current debates

publicationethics.org

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COPE ACTIVITIES & RESOURCES

- 100+ Forums (members only) held since 1997; 648 cases with advice on COPE's website

- Flowcharts: step by step guides

- Guidelines: formal policy documents

- Community discussions & discussion documents on emerging issues

- Webinars and videos of COPE speakers at events

- COPE seminars (members only) held globally

- Joint founder of Principles of Transparency and Best Practice in Scholarly Publishing

- eLearning (members only)

COPE CORE PRACTICES

Policies and core practices required to reach the highest standards in publication ethics:

Allegations of misconduct

Authorship and contributorship

Complaints and appeals

Conflicts of interest/ Competing interests

Data and reproducibility

Ethical oversight

Intellectual property

Journal management

Peer review processes

Post-publication discussions and corrections

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COPE GUIDANCE

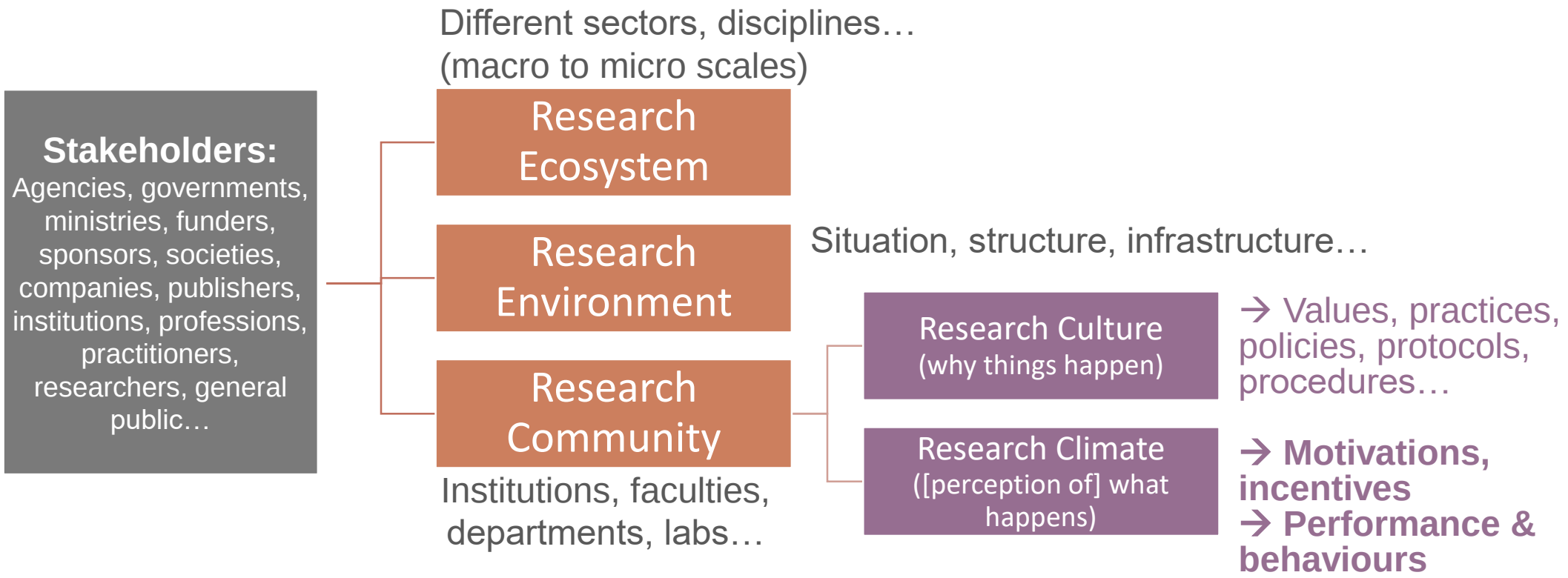
Systematic manipulation of the publication process

https://publicationethics.org/sites/default/files/publication-process-manipulation-cope-flowchart.pdf

Also see:
COPE Webinar 2022: Managing paper mills

COPE 25 YEARS OF PUBLICATION ETHICS

RESEARCH & PUBLISHING LANDSCAPE



Model inspired by Schmidt et al, Science & Public Policy 2003;30:107-16; Graversen et al, Int J Human Resource Management, 2005;16:1498-511; Schneider et al, J Appl Psychol 2017;102:468-82

PUBLISH OR PERISH?

Publish or perish; publish or punish

- **Quantity** > quality
- **Publication** as proof of research, basis of rankings
- **Publication** as job performance / productivity
- **Publication** to get/keep job, get promoted…
- **Prestige** / reputation / impact factor of journal reflects on institution / researcher / research

Publish and perish

- **Poor quality**; poor choice of publication venue: nobody reads/cites
- Publication might prevent **patenting**
- **Retractions**:
  - Systematic carelessness or disinformation (inc. biased/selective citations, fake references/quotes)
  - Unethical practices

- Authorship issues; hiding sponcon (sponsored content), conflicts of interest
- Salami slicing (least publishable units)
- Duplicate/redundant publications, multiple submissions
- Research misconduct (FFP: fabrication, falsification, plagiarism)
- Questionable / detrimental research practices; grant fraud
- Predatory journals / conferences (**CON**-ferences); nonsense/fake/ plagiarised papers

But see: **ThinkCheckSubmit.org, ThinkCheckAttend.org**

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PUBLISH AND FLOURISH?

- **Journal impact factor** for job performance / productivity / quality
- **Lists** of prestigious journals for performance, job/promotion, prizes, bonuses
- **Article citations, authorship position** for job performance / productivity / quality
- **Highly cited** researcher rankings & awards
- **Alternative** metrics
- Wider **dissemination** of articles (Open Access)
- Funders recognise posting of results in **preprints**
- Encouragement of **social networks/media**, post-publication discussion & debate

- Questionable/predatory editorial & publishing support services
- Fake peer review rings; fake journal special issues
- Citation manipulation
  - Excessive author/journal self-citation
  - Honorary/mutual citations
  - Coerced/coercive citations
  - Journal citation stacking, cartels/rings
- Social media manipulation, inc. fake accounts/activity
- Paper mills, authorship for sale

But see: **San Francisco Declaration on Research Assessment** https://sfdora.org/

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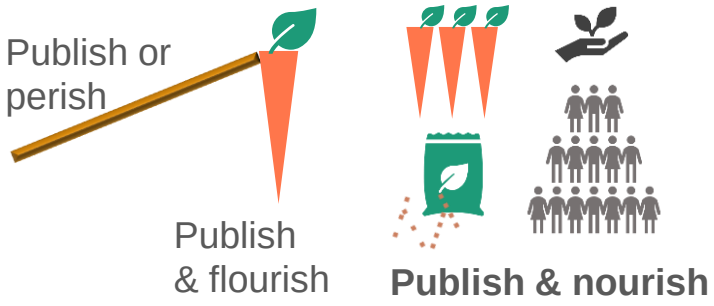
PUBLISH AND NOURISH

- **Quality** > quantity
- **Transparency**, access (Open Research/Science); publish **negative** results
- **Peer review** > metrics; narrative CV > publication lists
- Variety of **sharable research outputs** (data, protocols)
- **Access** to code & raw data: Open Data; FAIR Principles (Findable, Accessible, Interoperable, and Reusable)
- **Wider** access (plain language summaries, infographics, video abstracts, graphical abstracts, translations)
- **Knowledge exchange / transfer** as third mission; **research impact** as direct/indirect societal (non-academic) impact added to university/national assessments
- **DEI** (diversity, equity, inclusion) or **IDEA** (inclusion, diversity, equity, accessibility)…

Do good as well as do well

https://sdgs.un.org/goals



SOME RESEARCH & PUBLICATION PROBLEMS

25 YEARS OF PUBLICATION ETHICS

- **Reproducibility** (repeat analysis)
- **Replicability** (repeat study)
- **Generalisability**

- Screen, detect, verify raw/original data
- Respond to allegations, investigate with institution
- Correct/retract, inform institution of misconduct
- Educate, support, train, prevent

FFP

Fabrication

Falsification

Plagiarism

Questionable Research Practices

QRP

Unauthorized data collection / use

Underpowered, faulty methods

Sampling / confounder bias

Extending, ending early, censoring

Cherry picking

Fishing

Trawling, dredging

P hacking

HARK

Questionable Publishing Practices

QPP

Poor record keeping / reporting

Image distortion, exaggeration

Misinterpretation, spin

Unauthorized publication / sharing

Hiding, withholding data / info

Supporting predatory journals

Salami slicing

Redundant / duplicate publication

Selective publication, file drawer problem

Not correcting errors

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AUTHORSHIP ISSUES

Authorship matters

- Record of attribution
- Moral and legal rights
- Responsibility for (your/all) content
- Accountability in investigations
- Shapes academic career
  - Expertise & track record
  - Collaborations, networks
  - Funding, awards, hiring, promotion
- Individual / institutional reputation

ORCID stands for Open Researcher and Contributor ID
https://orcid.org/

- **Of 134 authorship cases brought to COPE Forum up to 2019:**
  - **questionable changes** to author list after submission (27%)
  - **ghost, guest, or gift** authors (19%)
  - submission **without knowledge** of one or more authors (19%)
  - disputed author **order** (7%)
  - **forged** paperwork (7%)

- often involves other problems (duplication, salami slicing, IP theft, conflicts of interest)

https://publicationethics.org/news/wcri-2019-responsible-authorship-panel

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WHOSE BYLINE IS IT ANYWAY?

"Author-A et al (2022) reported that…"

Journal Name, July 2022 (Vol 7)

Journal article title

A Author, B Author, C Author, D Author, E Author, F Author

Lead author/writer? Guarantor? Corresponding author?

Corresponding author?
(Administrative task before/after publication)

Amount of work? Value of contribution? Equal contribution?
Alphabetical order? Reverse alphabetical order?
Random order?
Explain in footnote

Senior author? Group head? Guarantor? Corresponding author?

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PRL 114, 191803 (2015)

Selected for a Viewpoint in *Physics*

PHYSICAL REVIEW LETTERS

week ending
15 MAY 2015

Combined Measurement of the Higgs Boson Mass in pp Collisions at $\sqrt{s} = 7$ and 8 TeV with the ATLAS and CMS Experiments

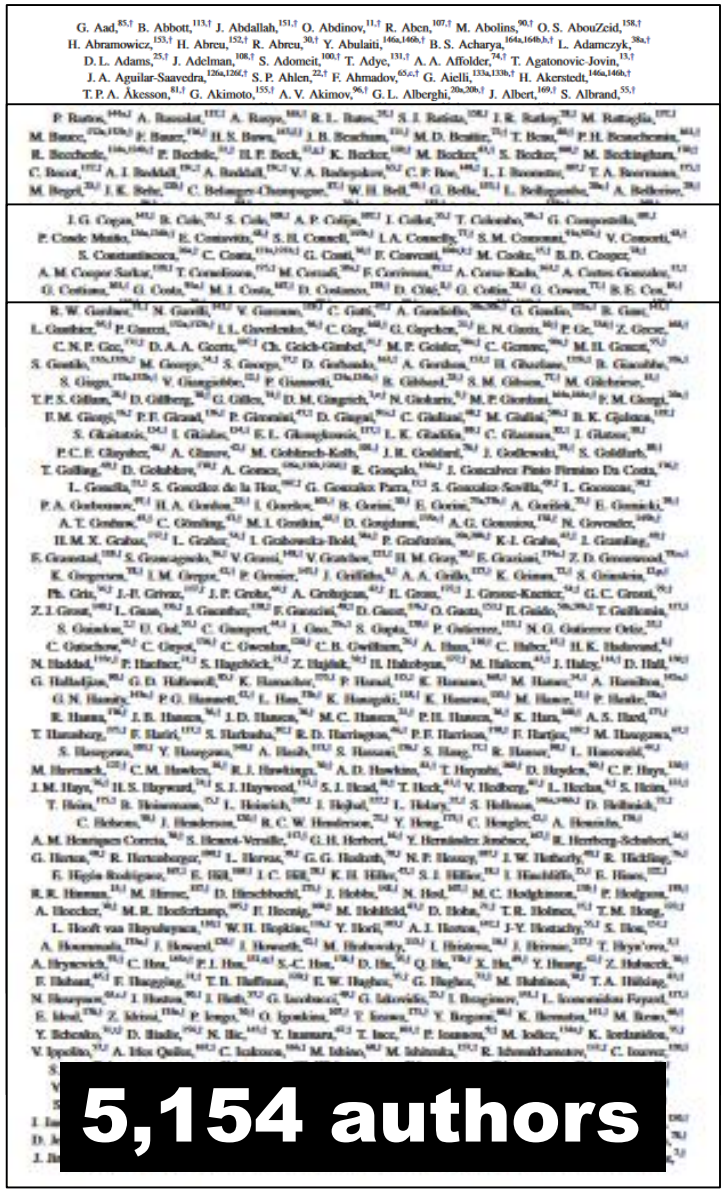
G. Aad *et al.*[*]

(ATLAS Collaboration)[†]
(CMS Collaboration)[‡]

(Received 25 March 2015; published 14 May 2015)

A measurement of the Higgs boson mass is presented based on the combined data samples of the ATLAS and CMS experiments at the CERN LHC in the $H \to \gamma\gamma$ and $H \to ZZ \to 4\ell$ decay channels. The results are obtained from a simultaneous fit to the reconstructed invariant mass peaks in the two channels and for the two experiments. The measured masses from the individual channels and the two experiments are found to be consistent among themselves. The combined measured mass of the Higgs boson is $m_H = 125.09 \pm 0.21\ (\text{stat}) \pm 0.11\ (\text{syst})$ GeV.

DOI: 10.1103/PhysRevLett.114.191803 PACS numbers: 14.80.Bn, 13.85.Qk



5,154 authors

CC BY: **G. Aad *et al.* (ATLAS Collaboration, CMS Collaboration)**
Phys. Rev. Lett. 114, 191803 – Published 14 May 2015
https://journals.aps.org/prl/pdf/10.1103/PhysRevLett.114.191803

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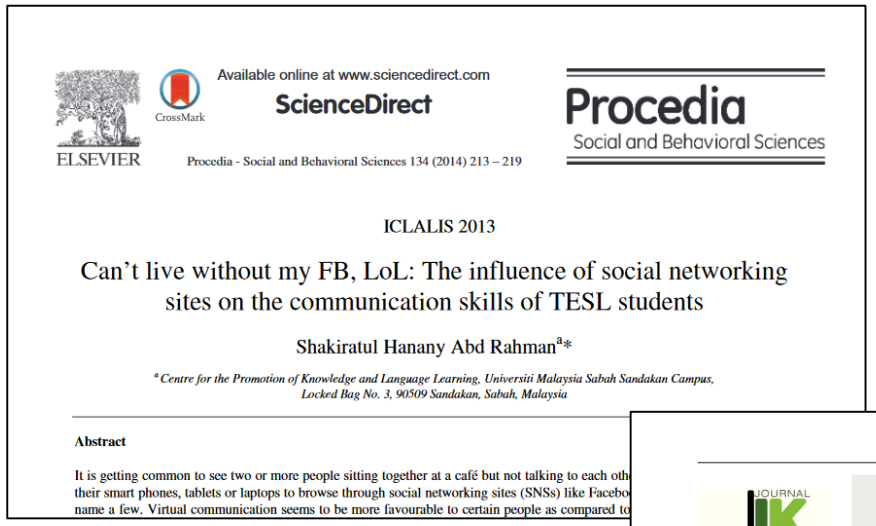
1 author



Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 134 (2014) 213 – 219

Procedia Social and Behavioral Sciences

ICLALIS 2013

Can't live without my FB, LoL: The influence of social networking sites on the communication skills of TESL students

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Abstract

It is getting common to see two or more people sitting together at a café but not talking to each oth their smart phones, tablets or laptops to browse through social networking sites (SNSs) like Facebo name a few. Virtual communication seems to be more favourable to certain people as compared to

https://cyberleninka.org/article/n/158538.pdf

Journal of Innovation & Knowledge 2 (2017) 155–171

Journal of Innovation & Knowledge

www.elsevier.es/jik

Empirical paper

Exploring entrepreneurial readiness of youth and startup success components: Entrepreneurship training as a moderator

Seun Azeez Olugbola

Faculty of Economics & Muamalat, Universiti Sains Islam Malaysia, 71800 Bandar Baru Nilai, Malaysia

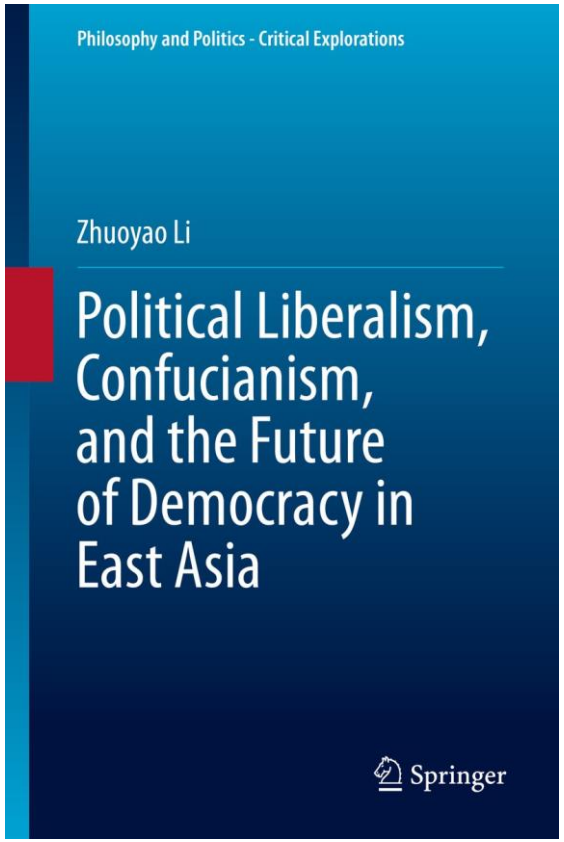
ARTICLE INFO

Article history:
Received 13 June 2016

ABSTRACT

From the behavioral perspective, this study analyzed the entrepreneurial readiness of youth in terms of opportunity identification, motivational factors, resources, and entrepreneurial

https://www.elsevier.es/index.php?p=revista&pRevista=pdf-simple&pii=S2444569X1730001X&r=376



Philosophy and Politics - Critical Explorations

Zhuoyao Li

Political Liberalism, Confucianism, and the Future of Democracy in East Asia

Springer

https://link.springer.com/book/10.1007/978-3-030-43116-7

DEFINITIONS OF AUTHORSHIP?

International Committee of Medical Journal Editors (ICMJE)

(www.icmje.org)

1) Substantial contributions to the **conception** or **design** of the work; or the **acquisition**, **analysis**, **or interpretation of data** for the work; AND
2) **Drafting** the work or **revising** it critically for important intellectual content; AND
3) Final approval of the version to be published; AND
4) Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

"PNAS", McNutt et al, 2018

(https://doi.org/10.1073/pnas.1715374115)

1) Each author is expected to have made substantial contributions to the **conception** or **design** of the work; or the **acquisition**, **analysis, or interpretation of data**; or the **creation of new software** used in the work; **OR** have **drafted** the work or substantively **revised** it;
2) AND to have approved the submitted version (and any substantially modified version that involves the author's contribution to the study);
3) AND to have agreed both to be personally accountable for the author's own contributions and to ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated, resolved, and the resolution documented in the literature.

DEFINITIONS OF NON-AUTHORSHIP?

ICMJE (www.icmje.org)

Contributors who meet fewer than all 4 of the above criteria for authorship should not be listed as authors, but they should be acknowledged. Examples of activities that alone (without other contributions) do not qualify a contributor for authorship are acquisition of funding; general supervision of a research group or general administrative support; and writing assistance, technical editing, language editing, and proofreading…

…obtain written permission to be acknowledged from all acknowledged individuals.

25 YEARS OF PUBLICATION ETHICS

UNDERLYING PROBLEMS?

- **General**
  - **Differences** in authorship criteria, weighting, thresholds in groups, institutions, journals?
  - **Who did what** & quality/quantity, record keeping, proof, relative importance?
  - Perceived differences in **author order** & importance of corresponding author (joint first authors, joint corresponding authors)?
- **Institutional**
  - What happens when **authors leave** institutions during drafting / submission?
  - **No / unclear policies** on IP, data, thesis management (eg, student excluded from paper)?
  - **Power relations**; students versus supervisors / heads (eg, supervisor added to paper)
- **Credit & appraisal systems**
  - Institutions' **publication-based rules** for hiring, promotions, awards, graduation
  - Institutions' **reliance** on journal impact factor (JIF), authorship position/type, metrics, quantity>quality
  - **Other assessments** using JIF/citations: funder / government / world rankings

UNETHICAL OR FRAUDULENT AUTHORSHIP?

Gift authorship,
eg, for funding,
technical service,
data/materials,
supervision,
artwork

Coerced/coercive authorship

Guest authorship
(name dropping of key
opinion leaders,
+/- permission)

Ghost authorship
(missing from byline)

Questionable authorship practices,
eg, reciprocating gift/guest authorship, paying, bartering,
relinquishing authorship
(demoting author to acknowledgements = ghost author)

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UNETHICAL OR FRAUDULENT AUTHORSHIP?

Fake / false authorship

Forged co-authorship

Publication not authorised

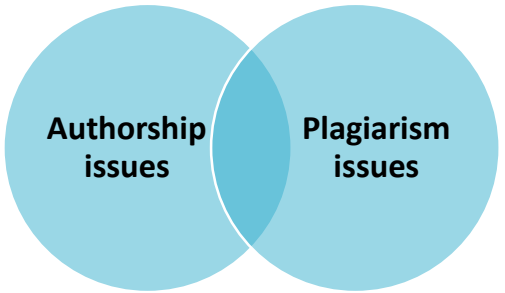
Plagiarism of text/data *[& **author services** to "remove plagiarism"; contract cheating to write/research]*

- **National guidelines**

  China Association for Science and Technology 5 Don'ts (2015). DO NOT:

  (1) Ask someone else to write the manuscript
  (2) Ask someone else to submit your article
  (3) Ask someone else to revise the research content
  (4) Give false reviewer information or manipulate peer review
  (5) Violate ethical standards and responsibility required of manuscript authors

  See: RetractionWatch



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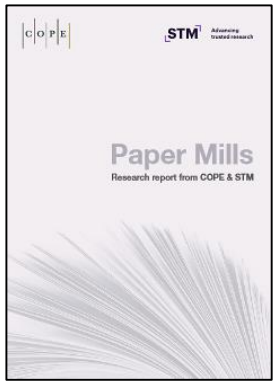
UNETHICAL OR FRAUDULENT AUTHORSHIP?

Using a paper mill to write/submit fake or plagiarised/translated paper

Using a paper broker to add your / other's name

Knowingly publishing in predatory journal

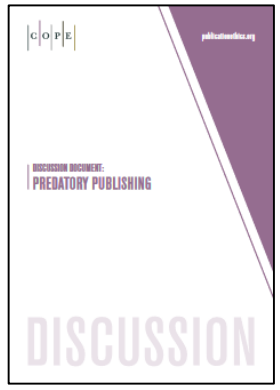
"…the process by which manufactured manuscripts are submitted to a journal for a fee on behalf of researchers with the purpose of providing an easy publication for them, or to offer authorship for sale"
https://cope.onl/paper-mills



https://publicationethics.org/resources/research/paper-mills-research

→ **STM Integrity Hub**

https://publicationethics.org/resources/discussion-documents/predatory-publishing



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UNETHICAL OR FRAUDULENT NON-AUTHOR CONTRIBUTORSHIP?

Guest contributorship

Fake / false contributorship

Coerced/coercive contributorship

Ghost contributorship

Ghost author if contribution was substantial?

- Ghost writer
- Ghost editor
- Ghost proofreader
- Ghost translator

Questionable contributorship practices, eg, reciprocating guests, paying, bartering

Forged contributorship

Contribution not authorised

Based on pixabay.com images (CC 0)

EXTENT OF PROBLEM

- **21%** of articles in 6 medical journals in 2008 had **undeserved +/- ghost authors** (https://www.bmj.com/content/343/bmj.d6128)
- **41%** of first-authors of Cochrane reviews, 2016-2018, reported **gift authorship** (https://doi.org/10.1016/j.jclinepi.2020.08.004)
- **35.5%** of respondents reported adding an **undeserving author** (https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0187394)

- **Misrepresentation**, impersonation; usually plagiarism; could be grant/funding fraud
- Unjustified authorship is considered **research misconduct** in South Korea (*Nature* News 12 Nov 2019: More South Korean academics caught naming kids as co-authors, https://www.nature.com/articles/d41586-019-03371-0)
- "Legal remedies for medical ghostwriting: Imposing **fraud liability** on guest authors of ghostwritten articles" Stern S, Lemmens T (2011), PLoS Med 8(8): e1001070. doi:10.1371/journal.pmed.1001070. (https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001070)

AUTHOR DISPUTE PREVENTION

1. **Research appraisal** systems:
   - quality > quantity; use of peer review
   - limits on # publications; no JIF in CV; ‘narrative’ CV, multiple output types
   - evaluate contributions to research integrity, impact, ‘stewardship’
2. **Institutions** (eg, central & faculty/discipline):
   - **predict & prevent problems:** training & policies/agreements/forms on authorship / contributorship roles, IP (copyright, patents)
   - record all roles (eg, **CRediT** system); scoring charts
   - keep Tracked copies, notebooks
   - dispute resolution procedures, research integrity officer / advisor
3. **Journals**:
   - clear authorship & contributorship **guidelines** & criteria
   - record & publish author **roles**; explain order; equal authors allowed?
   - forms for author transparency, CoI
   - correspond with all authors
   - guidelines on allegations & authorship dispute, inc. publication/process management
   - open peer review vs anonymised review? publish peer reviews?
   - post-publication review/discussion & amendments

CONTRIBUTOR ROLES TAXONOMY (CRediT)

National Information Standards Organization

https://www.niso.org/publications/z39104-2022-credit

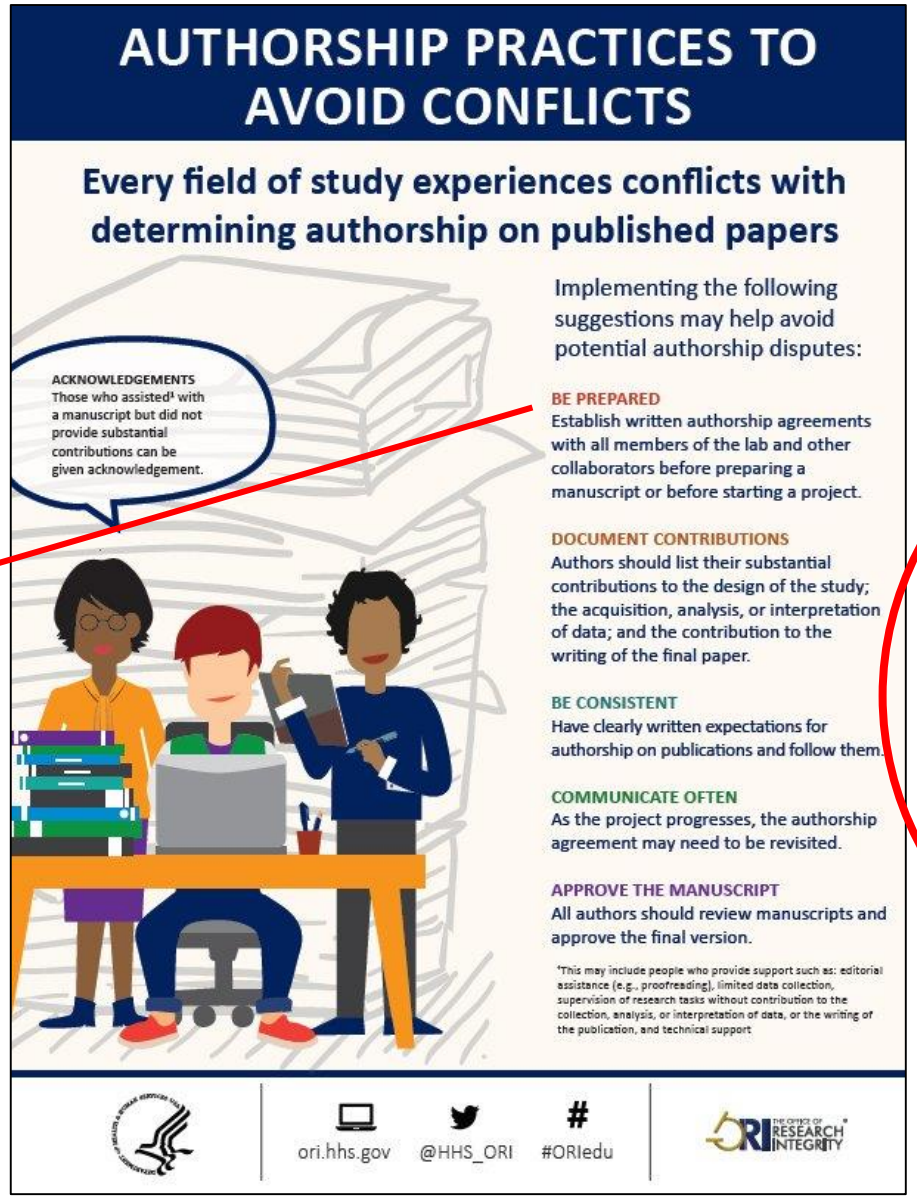
The Contributor Roles Taxonomy's 14 roles and best practices represent a simple but comprehensive system that enables the range and nature of contributions to scholarly published output to be captured in a transparent, consistent, and structured format

- Conceptualization
- Data curation
- Formal analysis
- Funding acquisition
- Investigation
- Methodology
- Project administration
- Resources
- Software
- Supervision
- Validation
- Visualization
- Writing – original draft
- Writing – review & editing

COPE 25

25 YEARS OF PUBLICATION ETHICS

- Discuss, agree, record before each project/paper
- Document contributions
- Follow publication authorship criteria
- Discuss throughout project/paper
- Review & approve final paper



https://ori.hhs.gov/infographics

publicationethics.org

INTERNATIONAL GUIDELINES & INITIATIVES

RePAIR Guidelines (Responsibilities of Publishers, Agencies, Institutions, and Researchers in Protecting the Integrity of the Research Record)

CLUE Guidelines (Cooperation & Liaison between Universities & Editors)

COPE Guidelines: Cooperation between research institutions and journals on research integrity cases

Hong Kong Principles for Assessing Researchers

https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000737
https://wcrif.org/guidance/hong-kong-principles

Leiden Manifesto for Research Metrics

http://www.leidenmanifesto.org/

Singapore Statement on Research Integrity

https://wcrif.org/statement

Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations

https://wcrif.org/montreal-statement/file

San Francisco Declaration on Research Assessment

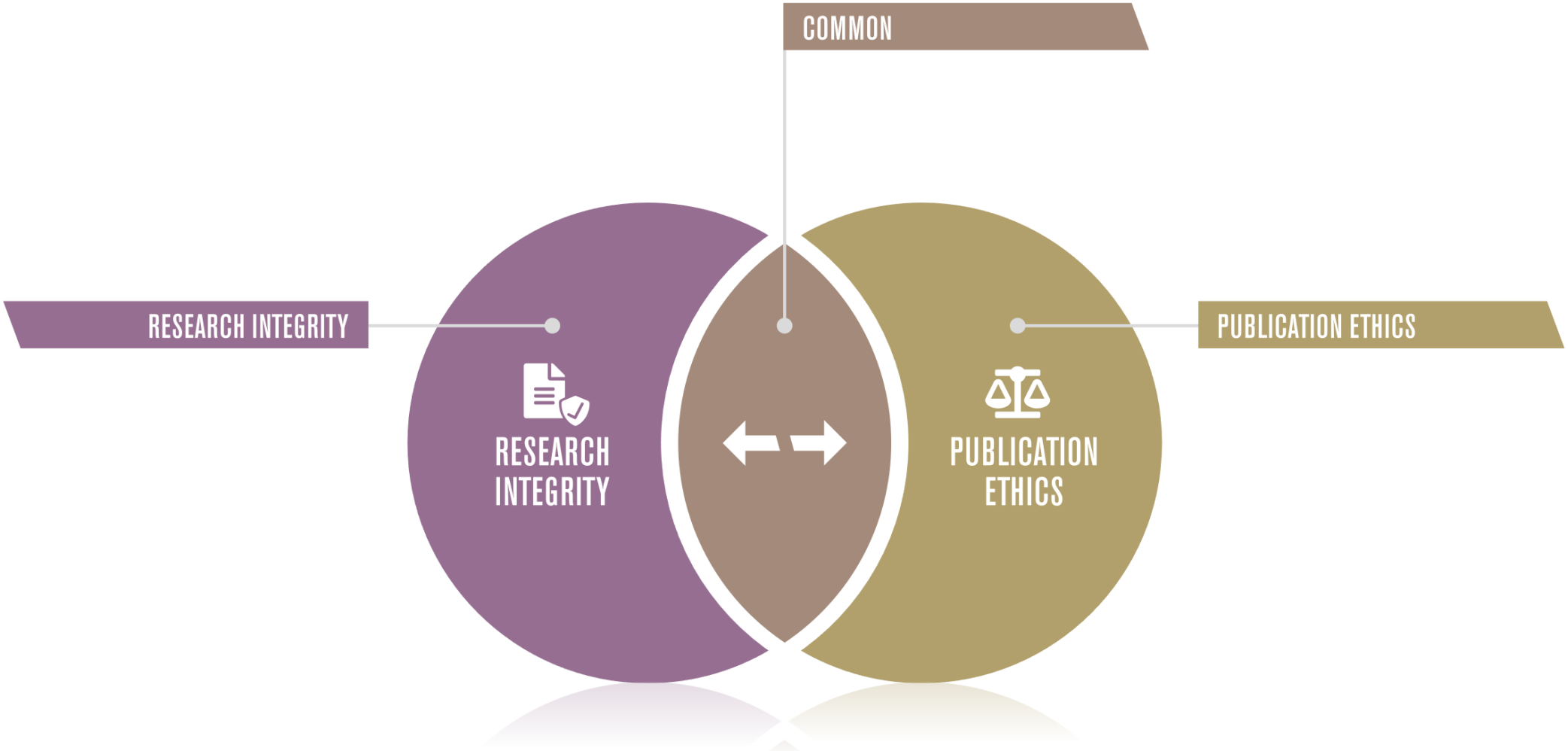
https://sfdora.org/

- recognises the need to improve the ways in which researchers and the outputs of scholarly research are evaluated.

C O P E 25

25 YEARS OF PUBLICATION ETHICS

CREATING A CULTURE OF PUBLICATION INTEGRITY TOGETHER



https://publicationethics.org/sites/default/files/research-publication-ethics-training.pdf

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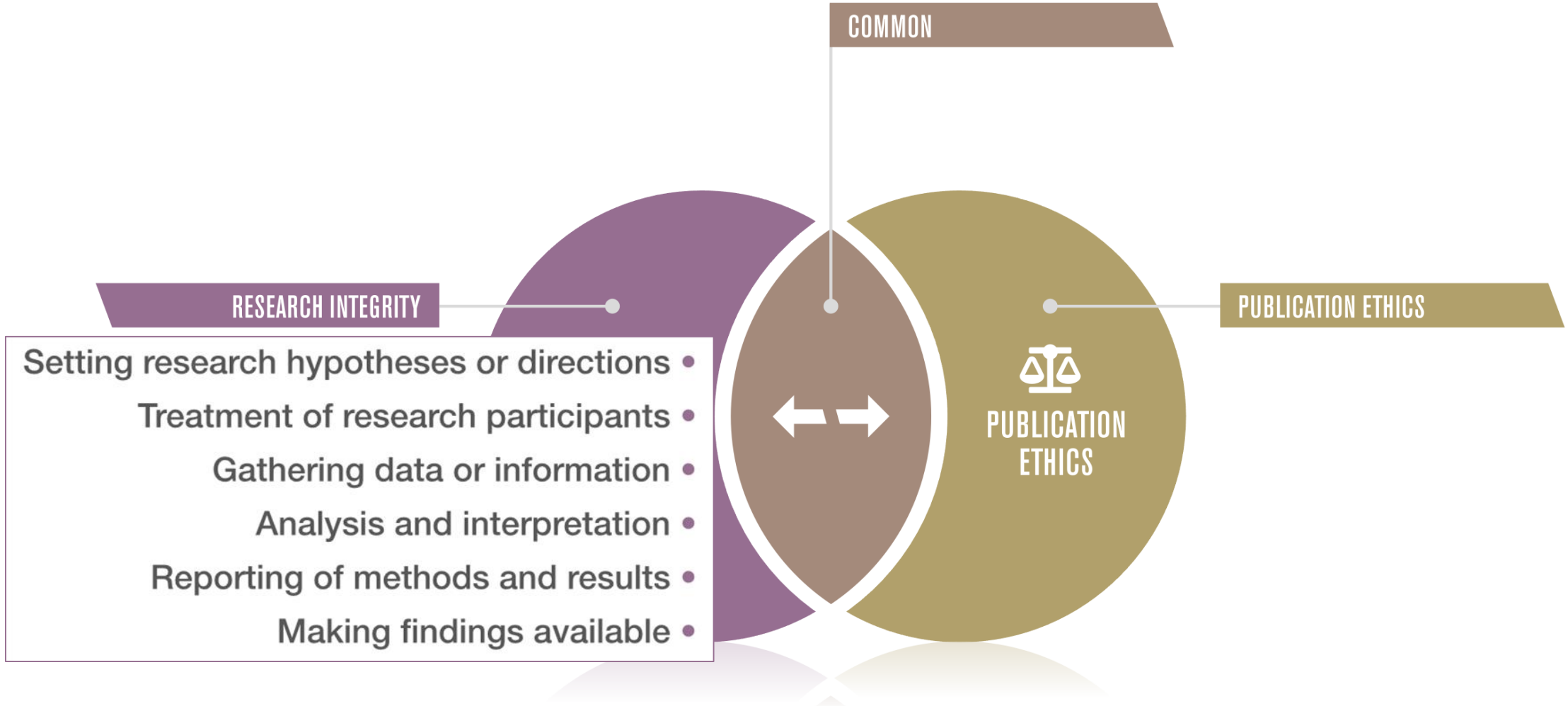
CREATING A CULTURE OF PUBLICATION INTEGRITY TOGETHER



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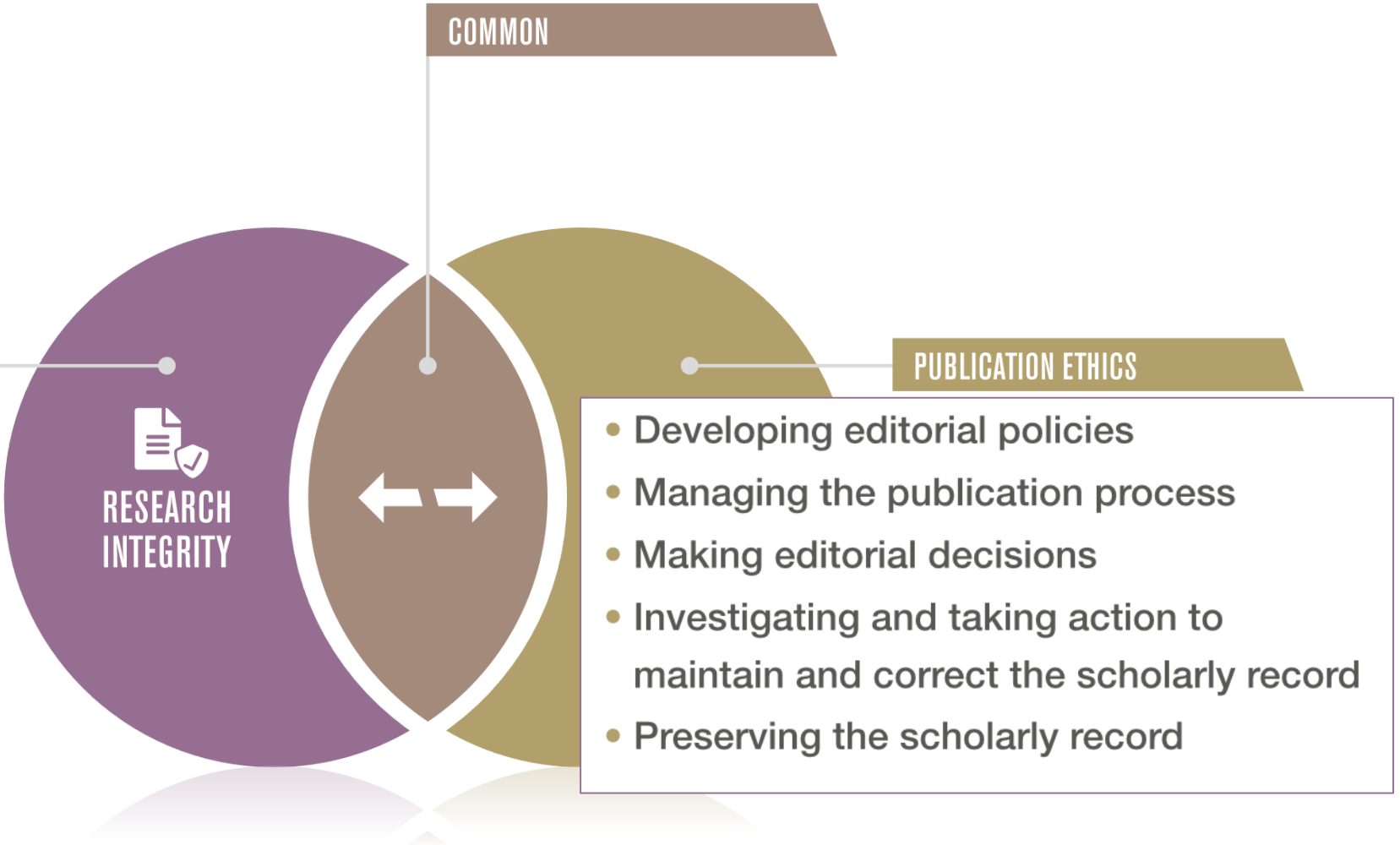

https://publicationethics.org/sites/default/files/research-publication-ethics-training.pdf

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25 YEARS OF PUBLICATION ETHICS

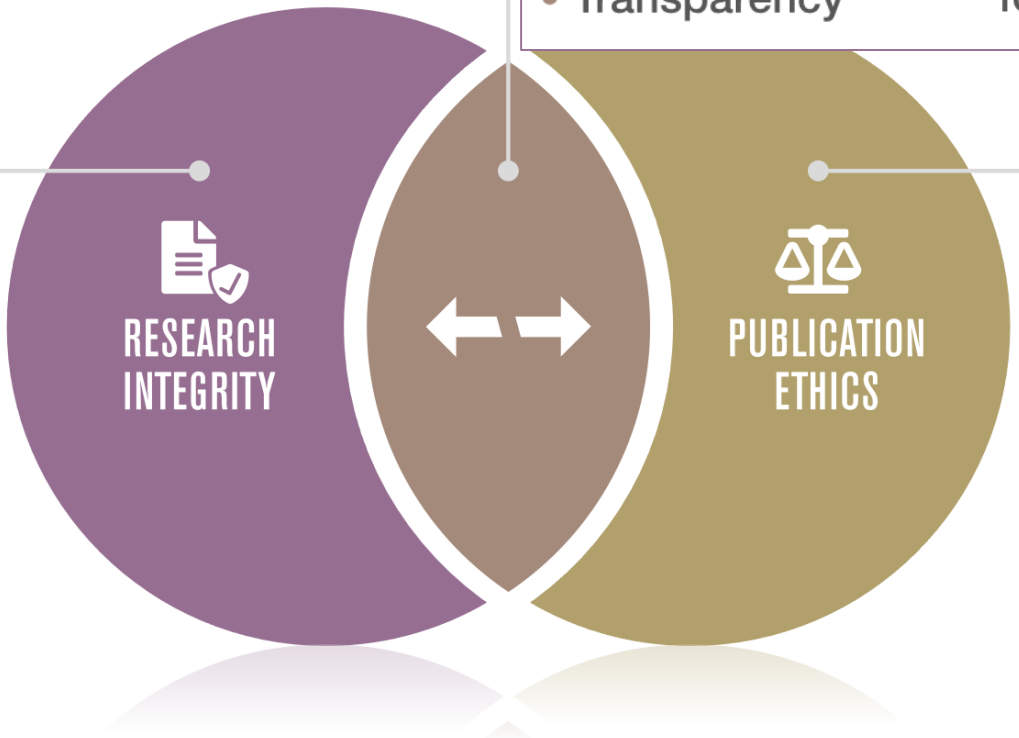
CREATING A CULTURE OF PUBLICATION INTEGRITY TOGETHER

COMMON

- Honesty
- Scrupulous care
- Transparency
- Care and respect
- Stewardship of scholarship for future generations

RESEARCH INTEGRITY

- Setting research hypotheses or directions
- Treatment of research participants
- Gathering data or information
- Analysis and interpretation
- Reporting of methods and results
- Making findings available



PUBLICATION ETHICS

- Developing editorial policies
- Managing the publication process
- Making editorial decisions
- Investigating and taking action to maintain and correct the scholarly record
- Preserving the scholarly record

https://publicationethics.org/sites/default/files/research-publication-ethics-training.pdf

COPE 25 YEARS OF PUBLICATION ETHICS

CREATING A CULTURE OF PUBLICATION INTEGRITY TOGETHER

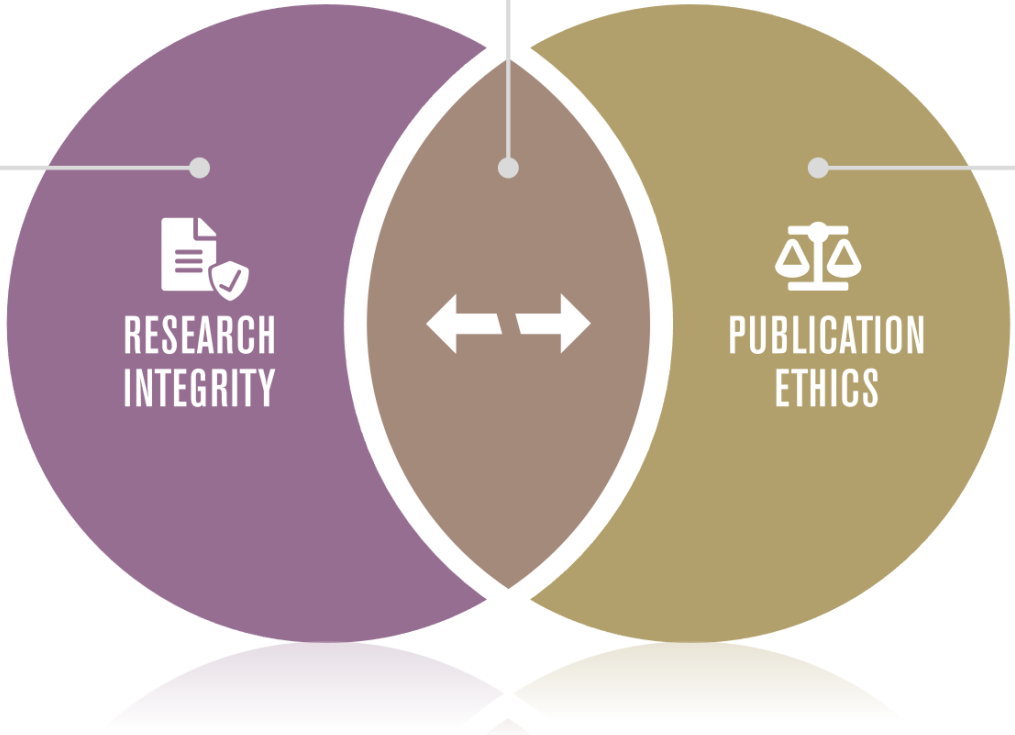
- Editors of scholarly publications
- University & research institutes
- Associated individuals/companies

COMMON

- Honesty
- Scrupulous care
- Transparency
- Care and respect
- Stewardship of scholarship for future generations

RESEARCH INTEGRITY

- Setting research hypotheses or directions
- Treatment of research participants
- Gathering data or information
- Analysis and interpretation
- Reporting of methods and results
- Making findings available



PUBLICATION ETHICS

- Developing editorial policies
- Managing the publication process
- Making editorial decisions
- Investigating and taking action to maintain and correct the scholarly record
- Preserving the scholarly record

https://publicationethics.org/sites/default/files/research-publication-ethics-training.pdf

THANK YOU

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25 YEARS OF PUBLICATION ETHICS

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