Ethical authorship versus fraudulent authorship

Thursday 30 September, 15:00-16:00 (BST)

Evan D Kharasch  Sam Oakley  Trevor Lane (Moderator)

#COPE2021
Trevor Lane is a publishing and education consultant based in Hong Kong. He was the managing editor of several general and specialist medical journals in Asia and the senior editor of two social science journals in the United States. From 2005 to 2015, he headed a knowledge exchange unit at the Faculty of Dentistry, the University of Hong Kong, where he taught research communication and publishing ethics to postgraduate students and helped staff publish and publicise their research.
Ethical authorship versus fraudulent authorship

Agenda

• Introduction
• Institutional perspective
• Journal perspective
• Q & A session
Sam Oakley is Researcher Development and Integrity Specialist at the University of Glasgow. Since 2019, Sam has developed and run the university’s research integrity training, and has been promoting and supporting research integrity more widely within the institution. She has a keen interest in research integrity, research culture, open research, and how to create enjoyable and effective online learning.

Evan D Kharasch is the editor in chief of Anesthesiology and is also the Merel H Harmel Professor of Anesthesiology and Vice-Chair for Innovation in the Department of Anesthesiology, Duke University. He has authored more than 300 peer reviewed articles, as well as numerous book chapters, and is the editor of two major textbooks on anesthetic pharmacology.
ETHICAL ISSUES IN SCHOLARLY PUBLISHING

- inappropriate / insufficient sampling
- inappropriate / biased analysis (P-hacking, confounder bias)
- biased / selective reporting
- not correcting errors
- authorship misattribution (gift, guest & ghost authors)
- citation manipulation (inaccurate / fake citations, citation stacking, citation cartels, coercive/coerced citation)
- reviewer misconduct (delay, bias, stealing data, plagiarism)
- fake review & reviewer identity fraud
- knowingly publishing in predatory journals
- unauthorised data use / reporting / sharing
- unregistered clinical trials
- no ethics board approval / waiver

etc...

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829174/ (CC BY)
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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- Data and reproducibility

Clear policies (that allow for transparency around who contributed to the work and in what capacity) should be in place for requirements for authorship and contributorship, as well as processes for managing potential disputes.
COPE RESOURCES
Examples for authorship and contributorship

Flowcharts
• Changes in authorship
• How to recognise potential authorship problems

Guidelines
• How to handle authorship disputes: a guide for new researchers

Discussion document: Authorship

Case / Case discussion
• Inconclusive institutional investigation into authorship dispute
• Gift authorship

Seminar
• WCRI 2019: Responsible authorship
AUTHORSHIP?

- Need clear contributions, eg, Contributor roles taxonomy (CRediT)
- Need clear authorship criteria, inc. accountability & responsibility
- Need clear policies, practices, procedures, guidelines for submission, checking, case management
UNETHICAL OR FRAUDULENT AUTHORSHIP?

- Misrepresentation, impersonation, grant fraud; usually involves plagiarism
- 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](https://www.nature.com/articles/d41586-019-03371-0))
- “Legal remedies for medical ghostwriting: Imposing fraud liability on guest authors of ghostwritten articles”
  doi:10.1371/journal.pmed.1001070. ([https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001070](https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001070))
COPE FORUM CASES 1997-2016

- Of 134 authorship cases:
  - questionable changes to author list after submission (27%)
  - claims of unacknowledged authorship (21%)
  - ghost, guest, or gift authors (19%)
  - submission without knowledge of one or more authors (19%)
  - disputed authorship order (7%)
  - forged paperwork (7%)
  - often involve other problems (duplication, salami, IP theft, CoIs)

- Eg, Case 15-17, Case 06-13, & Case 11-24 suggest institutionalised gift authorship for senior researchers

→ Usually requires author / institution action
EXTENT & NATURE 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)
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

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

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
INSTITUTIONAL PERSPECTIVE & JOURNAL PERSPECTIVE
Promoting Ethical Authorship for a Positive Research Culture

Sam Oakley | Researcher Development & Integrity Specialist | University of Glasgow

@rscsam

COPE Seminar 30 Sep 2021
Context

Researchers:
• Highly independent professionals
• May experience extreme pressures that affect decisions

Institutions:
• Governance / Reputation
• Staff wellbeing
• Costs
Context

Researchers:
- Highly independent professionals
- May experience extreme pressures that affect decisions

Institutions:
- Governance / Reputation
- Staff wellbeing
- Costs

What can institutions do to promote ethical publication?
“Code of Good Practice in Research” (PDF)

- Responsibilities for publication
- Authorship guidance (including CRediT)
- Where to publish
- Open Access / Research
• PGR Code of Practice
• Plagiarism
• Misconduct Policy and Process
• Responsible Metrics statement

+ Local good practice handbooks / protocols
Case study: the University of Glasgow's digital preservation journey 2017-2019


Abstract

This case study documents the University of Glasgow's digital preservation journey during 2017 and 2018. The University recognized that archiving was required to ensure the long-term preservation of key corporate records and archival material. Staff from the University’s Digital Preservation Working Group were therefore tasked with identifying the University’s priorities and requirements for preserving its key records, with the aim of producing recommendations for a preservation programme. Knowledge and skills were enhanced by participating in a national digital preservation pilot project and learning from practitioners through workshops and information exchange. The case study shares our reflections on the questions which emerged about metadata, workflows and integrating systems. A key priority will be to engage the support of key decision-makers within the University, as it was emphasized repeatedly that successful digital preservation depends as much on resources and organisational structure as it does on technology. Two of the authors have a particular interest in terminology and we share our work to examine digital preservation terminology and to open up discourses around the various terms used in the digital preservation community.

GIVING CREDIT FOR CONTRIBUTIONS TO RESEARCH OUTPUTS

Research outputs are increasingly the result of a team effort. We currently capture the varied contributions that colleagues make to an output either alongside the author list or in the acknowledgements section. However, an easier and more consistent way of highlighting who did what in a research study is by listing, in the output itself, the individual contributions that each author has made. There is a straightforward way of doing this, by selecting from the 14 standard role descriptors included in the CRediT taxonomy. Roles include drafting or revising an article, analysing and interpreting data, or programming.

We invite you to browse the CRediT taxonomy and consider how it applies to the roles that you fulfil in your collaborations.

MYGLASGOW NEWS

News Archive

2019

- 19 August 2019
- 5 August, 2019
- 24 June, 2019
- 25 July 2019
- 17 June 2019
Staff:

- Asynchronous, interactive Moodle course
- Reflective; acknowledged

PGRs:

- Asynchronous, interactive Moodle course
- Webinar facilitated by research staff

“Everyone…needs a developed understanding of how authorship is decided, that IT MATTERS to get it right and that senior staff (or supervisors) ACTIVELY CARE about getting it right”

There is a seriously impressive mandatory training programme for research integrity at @UofGlasgow @UofGPsychNeuro. Great delivery and covers under-appreciated topics like author contributions, image manipulation, and plagiarism.
Questionable Research Practices

“...accumulated evidence indicates that there is substantial room for improvement with regard to research practices to maximize the efficiency of the research community's use of the public's financial investment in research”

(Munafo et al, 2017)

“Review the list and consider which of these are of greatest impact for your subject area”
“A better research culture is not an alternative to excellence but rather it is what will enable more of us to excel”
“A positive research culture is one in which colleagues…

• Are recognised and valued for their varied contributions to research,

• Support each other’s careers,

• Are supported to produce work that meets the highest standards of academic rigour.”
Where do we want to get to?

A change in what we value in research outcomes

Outputs  People  Societal impact

UKRI CEO
23 November 2020

"I've become very committed to the notion of one's net contribution to the research system: there's the research you've done, and there's the research you've enabled others to do."
@UKRI_CEO #RRAConference
Change is more likely when actions align

- Support what we value
- Reward what we value
- Celebrate what we value
- Monitor how we are doing
Change needs actions, not just policies


https://youtu.be/zD8nVDJ_TdM
https://www.gla.ac.uk/researchculturestatement
Research Culture
Action Plan @UofG

Research integrity
Supporting research that is conducted to the highest standards

Collegiality
Ideas & incentives for supporting the careers of others

Career development
Careers Concordat
Recovery from COVID-19

Research recognition
Measuring what matters: DORA/Leiden
Recognising varied contributions & outcomes

Open research
Promoting the early and wide sharing of research

2015 2018 2019 2020 2021+
By working in teams, building on each other’s ideas, and making Glasgow the best place to develop a career, our research transforms lives and changes the world.

Research Strategy 2020–2025

Research principles @UofG

We value the quality of our research over its quantity.
The University succeeds when our individual researchers succeed.
How research is done is as important as what is done.

https://www.gla.ac.uk/research/strategy/ourstrategy/
Supporting what we value

- Specialist career tracks
  Career routes for non-traditional PIs
- Embedded CRediT taxonomy in institutional outputs repository
  Recognises and records the role of each collaborator
- Responsible evaluation, e.g. DORA
  “Conversation starters” for talking about research outputs

- Supporting PIs to support careers
  What does 10 days of CPD look like?
  “Conversation starters” for career support
- “SCOPE” workshop on what we value about career support
  Changes to recruitment toolkit
- Narrative CV
  Community project to develop enhanced CV template

29 Research Integrity Advisers
Leadership in each area, for advice on research practice

Recovery from COVID-19 (£26M)
Including addressing differential impact of COVID-19 on projects and careers
Research is assessed across 7 dimensions
Progression is preponderance-based

Updated our academic promotion criteria in 2019/20

1. Parity of credit for research outputs and impact

2. Reward those who support careers
   *Collegiality; how has CPD has been supported by PIs*

- Collegiality
  “Supporting others to succeed”

Examples:

- Including earlier stage academics as co-investigators on funding bids
- Nominating others for peer recognition
- Acting as second supervisor in support of primary supervision by a colleague
4. Combine quantitative evidence and a narrative when evidencing activity

5. Require commitment to Open Research practices
e.g. preprints, pre-registration, data availability, author contribution statements (CRedIT)

6. Quality over quantity
e.g. use of 100-word descriptors
5. Selected Outputs

In the tables below, please list the applicant’s **four most significant publications** or other outputs. Alternatively, please list research impact of equivalent quality.

Under ‘Output details’, please provide, where relevant: the title, title of journal / book (and publisher), year of publication, page ranges, DOI and full author list.

Under ‘Importance and Contribution’ please **highlight the influence that each output has made to advancing the field**, supported by indicators of quality as appropriate to your discipline (maximum 100 words each). Appropriate indicators include, for example, reference to (UK) REF panel criteria or benchmarked and subject-normalised citation metrics, but **not journal impact factor**.

In the case of jointly authored outputs, **please state your contribution to the work**.

The **CRediT taxonomy** may be helpful in articulating contributions.
Mesasuring how we are doing

Research Culture Survey 2019

0% complete

Page 1: Research Culture 2019 survey

We want Glasgow to be the place where good researchers want to come (and stay!) to do excellent research. We are committed to promoting a positive research culture and have introduced a raft of measures to support this, including training, support staff, research integrity advisors, IT innovations and new policies. However, all of this work is meaningless if it does not change what is felt on the ground. We have introduced this survey as a way of understanding where we are making progress and where there is still work to be done. We will run it again in summer 2020 to track progress.

https://www.gla.ac.uk/myglasgow/rs/researchculture/
### Research Culture Survey 2019

<table>
<thead>
<tr>
<th>2.1. Open research</th>
<th>2.2. Open access publication</th>
<th>2.3. Research integrity</th>
<th>2.4. Discussion of professional development</th>
<th>2.5. Valuing quality of output over quantity</th>
<th>2.6. Collegiality (supporting each other to succeed)</th>
<th>2.7. Collaboration across groups or disciplines</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1. I can approach colleagues for advice</td>
<td>3.2. I understand what a good quality output means</td>
<td>3.3. I understand good authorship practice</td>
<td>3.4. I understand what constitutes research impact</td>
<td>3.5. I have support for grant applications</td>
<td>3.6. I feel able to spend time undertaking CPD</td>
<td></td>
</tr>
</tbody>
</table>
Launched December 2020:

- Beyond “research” culture
  - A home for delivery of culture-related projects
  - Monitoring and evaluating progress
  - Working with the sector (HEIs, funders etc)
- Project-led delivery via secondment of staff from services or faculties
Thank you

Culture @UofG
https://www.gla.ac.uk/researchculture/

Tanita Casci and Miles Padgett were/are our institutional leads for Research Culture

Samantha.Oakley@glasgow.ac.uk
@rscsam
Ethical authorship versus fraudulent authorship

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Merel H. Harmel Professor of Anesthesiology
Vice-Chair for Innovation
Duke University School of Medicine
Editor-in-Chief, ANESTHESIOLOGY

COPE Seminar 2021
Together shaping the future of publication ethics

#COPE2021
Disclosures:

none
Ethical authorship versus fraudulent authorship

Committee on Publication Ethics

Issues of importance in publication ethics today
2019 COPE member research

- Lack of education in publication ethics among authors/reviewers (49%)
- Lack of training and education in research ethics among authors/reviewers (45%)
- Assessing contribution and authorship claims (or just general authorship issues) (42%)
- Increase in plagiarism and fraudulent submissions (38%)


Integrity
Why Authorship Matters (ICMJE, WAME)

1. Authorship confers credit and has important academic, social, and financial implications
2. Authorship implies responsibility and accountability for published work

*Credit and accountability are inseparable*

**Minimum requirements for authorship**, common to all definitions (COPE):
1. Substantial contribution to the work
2. Accountability for the work done and publication

Authors must know, understand, and adhere to the **criteria for authorship**:
1. Within their respective disciplines
2. For the institution in which they work
3. For the journal to which they are submitting
Authorship inflation in medical publications

Analysis of the 1st 50 original articles published each decade 1960-2010 in JAMA, NEJM, BMJ

- Single-center RCT
- Multi-center RCT
- Observational Study
- Decision analysis/cost-effectiveness
- Meta-analysis

Increasing research complexity is an inadequate explanation for authorship growth

Instead, growth in authorship appears inflationary

Authorship inflation in medical publications

Increasing Complexity or Competition?

**Complexity:** Technical sophistication of research process and attendant specialization of individual researchers

**Competition:** Pressures from (i) evaluative criteria (grants, patents, publications, & article citation rates that directly inform hiring, promotion, and tenure, and indirectly affect social capital among colleagues) and (ii) scarce resource allocation (grants)

- Coauthorship increased about one author per article per decade
- Higher impact factor journals published higher-authorship articles
- Coauthorship growth is primarily driven by research competition not complexity
- Demand for recognition incentivizes weaker criteria for authorship

Authorship inflation vs inappropriate (fraudulent) authorship

Author inflation is problematic and disconcerting, but the inclusion of gift and guest authors is truly unethical and rampant. Such authorship practices are considered a type of research fraud.*

Case study

Snuppy: World's first cloned dog. Created using an ear cell from an adult Afghan hound

“It seems clearly wrong for Gerald Schatten to be listed as an author on the article that announced the first successful cloning of a dog, merely because he had recommended that the research team use a professional photographer to get a good photograph of Snuppy”

Case report:
Ventilator sharing system used to successfully ventilate two pairs of COVID-19 patients for one hour

4 patients

20 authors

Case study

Editor: The number of authors on the manuscript appears excessive

Author: “Look, I had clinical fellows who collected blood samples at night and on weekends. I can’t pay them extra, but I need to compensate them. So I made them authors”

https://ecommons.cornell.edu/bitstream/handle/1813/11589/Gerald_Schatten_Final_Report_2.08.pdf

Fraudulent authorship

Unacceptable types of authorship

Gift (honorary, courtesy) authorship:
Offered from a sense of obligation, tribute, respect, or dependence, to an individual who has not contributed to the work, for anticipated benefit (e.g. Dept Chair). Most prevalent problem.

Guest (celebrity, prestige) authorship:
Granted in belief that expert standing of the guest will increase the likelihood of publication, credibility, or status of the work or authors.

Ghost authorship:
Failure to identify someone who merited authorship (may range from uncredited author-for-hire to major contributor not named as author).

One-fourth to one-third of published original research articles had one or more honorary authors.

Honorary authorship was positively associated with journal impact factor.

Wislar: BMJ 2011;343:d6128
“Authorship abuse is not a victimless crime as the entire research and publication process relies on trust. If scientists or clinicians are prepared to lie about the people involved with a research project or a publication, why should we expect them to be any more honest about their findings?”

Papadakis M, Zirngibl H: Medical publication: An insight into the future. Injury 2020;51:1410
**Fraudulent authorship**

**Why do authorship problems exist?**

Prevailing theory: The credit economy of science and credit-motivated fraud, or, more philosophically, *thumos* (honor and esteem) replaces *nous* (finding truth)

- Scientists become motivated by credit, regard, and status
- Academicians feel pressure from institutional grant requirements and appointment and promotion process
- Institutions too seek credit, reputation, status, and financial gains therefrom in extramural funding and donations
- **Tension**: Authorship used inside science to communicate research findings, determine credit, responsibility, and career advancement; vs used outside science by institutions as a metric of faculty productivity and for ranking
- **Dance**: Faculty and institutions are *pari passu* in a perverse mutual reward system that incentivizes misbehavior
- Journals, too, have become enmeshed in the thirst for *thumos*, credit, and status, and complicit in the credit economy
Fraudulent authorship

What actions can be taken (policies, definitions, declarations, technology, etc) by authors, journals, and institutions to promote ethical authorship and detect or prevent unethical authorship and other fraudulent practices?
Addressing fraudulent authorship

Changing mores:
1. Authorship is intellectual not transactional
2. Bring authorship fraud out of the grey into the light

Research Misconduct
Fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results
a) Fabrication: making up data or results and recording or reporting them
b) Falsification: manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented
c) Plagiarism:

Research Integrity Issues (grey area)
- Authorship
- Disclosure: Research funding, sponsorship, support
- Disclosure: competing interests
- Management of conflict of interest – personal, professional, financial
- Ethical approval & compliance: Human subjects (IRB), animals (IACUC), trials registration
- Duplicate publication
- Salami publication
- Simultaneous duplicate submission

https://ori.hhs.gov/definition-misconduct
Integrity

It is the collective responsibility of the authors, not the journal, to determine that all people named as authors meet all four criteria.

It is not the role of journal editors to determine who qualifies or does not qualify for authorship or to arbitrate authorship conflicts.

3. Journal editors and peer reviewers can and should legitimately question obvious or potential fraudulent authorship.
Addressing fraudulent authorship

Challenges:
- No single, universal consensus definition of authorship
- Criteria for authorship differ widely across disciplines, fields, institutions, labs, journals, historically between various countries and cultures, and evolve over time. Different disciplines variously value technical and intellectual contributions
- After credit, responsibility & accountability, authorship is cultural

Principles:
It is important that authors know, understand, and adhere to the criteria for authorship:
1. Within their respective disciplines
2. For the *institution* in which they work
3. For the *journal* to which they are submitting

4. Journals can and should explicitly define criteria for acceptable and unacceptable authorship.
Authorship based on ALL 4 criteria:
1. Substantial contributions to the conception or design of the work or acquisition, analysis, or interpretation of data
2. Drafting or revising critically for important intellectual content
3. Final approval of the version to be published
4. Agree 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

All designated as authors should meet all four criteria for authorship, and all who meet the four criteria should be identified as authors. Those who do not meet all four criteria should be acknowledged.

Authorship must satisfy ALL 5 criteria:
1. Scholarship: Substantial intellectual contributions to research conception or design, execution, analysis, or interpretation of results
2. Authorship: Drafting or revising critically for important intellectual content
3. Approval: Final approval of the version to be published
4. Ethics: Agree to be accountable for all aspects of research and manuscript
5. Integrity: Ensure that questions related to accuracy or integrity of any part of the research and manuscript, even ones in which the author was not personally involved, are appropriately investigated, resolved, and communicated (where needed).

All authors should meet all five criteria, and all contributors who meet the five criteria should be listed as authors. Those who do not meet all five criteria can be listed as Collaborators or in Acknowledgments.
Addressing fraudulent authorship

Non-Author Contributors
Contributors who do not meet all authorship criteria should not be listed as authors, but can be included in Acknowledgments. Examples of activities that alone do not qualify for authorship are acquisition of funding; general supervision of a research group; general administrative support; mentoring; providing patients, reagents, animals, or other study materials; collecting samples; writing assistance; technical editing; language editing; and proofreading.

Ghost authorship
Any participation by a professional writer in a manuscript must be disclosed for transparency. Professional writers meeting all authorship criteria must be listed authors. Those who only drafted or edited the manuscript but did not have a role in design, data analysis, or interpretation of results must be identified in the Acknowledgments.

https://pubs.asahq.org/anesthesiology/pages/instructions-for-authors-general#authorship
Addressing fraudulent authorship

5. Journals can and should create non-author mechanisms for appropriate recognition of scholarly contributions

Non-Author Collaborators

Individuals working in a Research Group who do not meet all five criteria for authorship may be listed as Collaborators if they substantially contributed to the work. Collaborators can be listed as such in PubMed, in addition to the authors. They are listed in a separate Collaborators section below the author byline. PubMed differentiates between full authors and non-author collaborators.

https://pubs.asahq.org/anesthesiology/pages/instructions-for-authors-general#authorship
Addressing fraudulent authorship

**Authors**
- Authorship definitions & culture
- Intellectual not transactional
- Responsibility, accountability AND credit
- Gift, guest, ghost authorship

**Institutions**
- Reduce A&P pressures
- Address ‘facultization’ of professional practitioners
- Authorship guidelines
- Meaningful RCR education

**Journals**
- Define/publish criteria for acceptable/unacceptable authorship
- Non-author mechanisms for recognizing contribution
- Attention to authorship in peer review
- Fraudulent authorship as misconduct
THANK YOU
Dr Trevor Lane,
COPE Council; Chair, Education Subcommittee
Email: trevorlane@publicationethics.org