Responsible conduct and publication of research

The role of authors and the role of editors

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Research and publications as career progression? Or:

Responsible conduct of research
+ Transparent and full publication
= Trust, validity and scientific progress
Research environment more complex than ever:
- Pressure to publish
- Funding
- Career
- Conflict of Interest
- Many guidelines/rules
- Collaborations
- Competition (between individuals, disciplines, institutions, countries)
- ……


Science is changing

- “Team science”
  - Cross-disciplinary research
  - Complex research
  - Multi-institution and/or multi-national
- Pressure to publish
  - Authorship credit = professional advancement, personal gain
Authorship inflation
Authorship inflation

Editors’ role

- Unique and powerful position: publication = currency of career progression for scientists
- Good editor = trust in journal
- Strong editorial leadership
- Editorial integrity
- Transparent and fair processes
- Trusted journal = high-quality submissions
- Increased influence (citations, readers, policy)
**How to foster integrity**

**journals/editors**

Only indirect influence
- Reporting standards (CONSORT, STROBE...etc)
- Promote honesty and transparency
  - Protocols, ethics approval, trial registration
  - Contributor statements/guarantor
  - Conflict of interest/role of sponsor
- Screening for plagiarism/figure manipulation
- Editorials/commentaries

**How to foster integrity**

**institutions**

- Guidelines covering ALL aspects of research (but with clear consequences)
- Mandatory education in Responsible Conduct of Research (ALL researchers, including professors and students)
- Effective and responsible mentoring (role models)
- Central documentation of all study protocols
- Central documentation/storage of raw data
- ?? Random checks/audit
- Clear and transparent policies (Col, intellectual property)
Where does misconduct/questionable conduct occur

- Failure to appraise literature
- Unethical research
- Plagiarism
- ‘Poorly’ designed research
- Authorship issues
- Salami/redundant/duplicate publication
- Text recycling
- Authorship

Pursuing alleged misconduct - editors

- Not just rejection
- Due process: contact authors and institutions
- Ask for an institutional investigation
- Act on findings (correction, expression of concern, retraction)
- Banning authors is problematic
Common difficulties for editors

- Time consuming!
- No reply from authors
- No reply from head of institutions
- Inadequate investigation by institution
- No institution
- Managing/analysing raw data
- What to do, if alleged misconduct is unproven

Best way to handle misconduct
ingstitutions/investigating body

- Clearly identified responsible person as first point of contact: Research Integrity Officer (US model)
- Due process
- Fair and speedy investigation (ideally independent)
- Make results publicly available (?also in English)
- Work with and inform all relevant stakeholders (journals, funders...etc)
- Be open to, and protect, whistleblowers
- Appropriate sanctions and consequences
- Lessons from cases for continuing culture change
- National bodies to instigate and oversee, or conduct independent investigations
COPE cases

- Duplicate/redundant publication 77
- No ethics approval 34
- Authorship issues 31
- No or inadequate informed consent 30
- Falsification or fabrication 28
- Plagiarism 26
- Unethical research 19
- Undeclared conflict of interest 15
- Reviewer misconduct 8
- Editorial misconduct 6
- (miscellaneous 41)

Authorship issues
Falsification or fabrication
Plagiarism
Duplicate/redundant publication
Reviewer misconduct
Authorship - definitions

original ICMJE (Vancouver group) criteria

1. substantial contribution to conception and design, or acquisition of data, or analysis and interpretation of data;
2. drafting the article or revising it critically for important intellectual content and
3. final approval of the version to be published

All 1, 2, and 3 must be met

ICMJE continued

- all persons designated as authors should qualify for authorship, and all those who qualify should be listed
- each author should have participated sufficiently for appropriate portions of the content
Inappropriate authorship or non-authorship

The three G’s

- Guests (invites him/herself)
- Gifts (authorship as a present – ie department head...)
- Ghosts (or the disappearing author.....)

Journals’ responses

- Lancet: contributor statement
- BMJ: contributors and guarantor
- NEJM: Vancouver guidelines
- PLoS Medicine: Vancouver guidelines
- JAMA: contributor checklist
- Nature, Science: recommend contributor statements
Why worry about multiple authorship?

- Suspicion
  - Do all those people really deserve credit for this work?
- May conceal scientific misconduct
  - Fabrication of data
  - Gift authorship
  - Credit without responsibility

Contributorship

- What works
  - Gives credit for all forms of contribution
    - Statisticians
    - Technicians
    - “Ghost” writers
- What doesn’t
  - No protection against fraud
  - People liberal with the truth when describing their contribution to a paper (and depending on how they are asked)
Authorship conflicts/dilemmas

• Added author

• Deleted author

• Disagreement of authors about:
  » Who should or shouldn’t be an author
  » Order of authors
  » Presentation or analysis of data
  » Interpretation of data

Redundant/duplicate publication

• Does it matter?
  – meta-analyses, readers, deception (CV, editors….etc)

• May be ok
  – Different audience, language (with everybody’s knowledge and agreement and crossreference)

• Overlapping vs complete duplicate
  – Still matters for meta-analyses

• In non-research papers
  – = text-recycling or ‘self-plagiarism’

• ‘I can say the same thing only in so many ways’
  – Really? Deception!
CrossCheck

plagiarism, duplicate publication, and ‘self-plagiarism’

• Exists since 2008 (CrossRef, uses iThenticate)
• >126 publishers signed up (>50 000 journals)
• >25 Mio pieces of scientific literature in database
• Takes test-text and matches it with published pieces (does not check images, figures, or tables)
Plagiarism

- Serious misconduct
- Part of ‘FFP’
- Plagiarist gets undeserved status, authority, and credit
- Now easier to detect (even retrospectively!)
- Extent matters!
- Place matters!
- Language and background of researcher matters

The problems with plagiarism

- How much is too much?
- Difficult to detect plagiarism of ideas
- Plagiarism from grant proposals
- Plagiarism by reviewers
- Method section might be ok
- In review papers of non-native English speakers
- When should institutions be informed and with which aim?
- Sanctions by editors
Text recycling or ('self-plagiarism')

CV with many publications
Readers!
Journals/editors!
Academic laziness

Misleading and deceptive

Fraud/falsification
How big a problem is it?

[Graph showing percentage of cases]

QR P ??10-50%
FFP ??0.1-1%
RCR

0.1.
Research misconduct – the consequences

- Personal (career, reputation)
- Institution (reputation, spotlight on processes/education)
- Country ("something is rotten in the state of Austria" Nature 2008; China)
- Field of research (public trust)

Alleged research misconduct – the consequences

Feb 2010

Nov 2010
Alleged research misconduct – the consequences

Sir Muir Russell (conclusions of 6-month investigation):

No evidence of misconduct BUT

… there had been “a consistent pattern of failing to display the proper degree of openness”… scientists failed to appreciate the risk their lack of transparency posed to the university and “to the credibility of UK climate science”

How to prevent serious misconduct - journals/editors

?? Screening (vs. trust)
• for plagiarism (CrossCheck, or other software)

• Figure manipulation

Reviewer misconduct

- delay of reviewing (unfair advantage for own work)
- Plagiarism (sometimes plagiarised work published first)
- Plagiarism of ideas (very difficult to prove)
- Undeclared conflict of interest (financial or non-financial)
- Unfair or biased review (competition, personal quarrels)
- Breach of confidentiality

Preventing reviewer misconduct

- set clear timeline
- Make it clear that conflicts of interest should be declared before reviewing (serious Cols mean editors should seek alternative reviewer)
- Give clear instructions on what is expected form reviewers, including emphasis on confidentiality
COPE – in the beginning…

started in 1997 as an informal forum for discussing ethical issues relating to research and publication in biomedical journal publishing
The three ‘wise’ COPE fathers

www.publicationethics.org

COPE – from the beginnings to now membership

- about 60 members in 1998

www.publicationethics.org
COPE – from the beginnings to now membership

- At the beginning largely UK-based and biomedical membership
- Now all types of 'scholarly' journals (from Acta Archeologica to Zygon: Journal of Religion and Science)
- From 65 countries (Australia to Zimbabwe)
COPE – from the beginnings to now
governance

- Constitution, elected officers and a council in 2000
- Charity in 2008
- Full-time Operations Manager in 2009, Cope Administrator
  3 days per week, part-time Web Administrator in 2010

COPE – from the beginnings to now
governance – ‘the officers’

Liz Wager, Chair

Ginny Barbour
Secretary

Chris Graf, Acting Treasurer

Sabine Kleinert, Vice-Chair
COPE – from the beginnings to now cases

4 meetings a year (Forum) – about 40 editors and other COPE members
- anonymous discussion of suspected misconduct cases (if not able to attend, by phone; in future videoconference)
- advice to editors on how to proceed
- cases (and outcomes if available) on website – searchable by keywords

www.publicationethics.org
COPE – from the beginnings to now

- Code of Conduct for Editors launched in 2004 (= basic standards that all editors should adhere to)
  
  ➢ All COPE members should adhere to CoC, COPE will investigate complaints against editors, if Code breeched and journal’s complaint mechanisms have been sought

  ➢ ?does it apply to all types of journals (other than biomedical and scientific?): we are currently reviewing….

COPE – from the beginnings to now

- COPE flowcharts on:
  
  Redundant (duplicate) publication
  Plagiarism
  Fabricated data
  Changes in authorship
  Ghost, guest or gift authorship
  Conflicts of interest
  General suspected ethical concerns
  Reviewer misconduct
  How COPE deals with complaints

www.publicationethics.org
COPE’s flowcharts

COPE – from the beginnings to now

• COPE’s Best Practice Guidelines in 2006
  (= gold standard to which all editors should aspire)

• Cope’s Code of Conduct for Publishers in 2010

• Cope’s e-learning modules launched end Oct 2011
COPE – from the beginnings to now
other activities

- Ethics Audit (members only) - 2008
- Newsletter (quarterly) – 2008
- New website with blog, sample letters, cases… etc in 2008
- Annual seminars (UK)
- Research grants twice a year
- First Australasian Seminar in Melbourne, Nov 2011
- Iranian Seminar in 2011
- Collaborations with ORI, ESF, CSE......

www.publicationethics.org

COPE – from the beginnings to now
Newsletter
quarterly, on website, open access

www.publicationethics.org
COPE – from the beginnings to now

social media

Get short, timely messages from Publication Ethics. Twitter is a rich source of instantly updated information. It’s easy to stay updated on an incredibly wide variety of topics. Join today and follow @COPE

COPE: e-learning for editors

PLAGIARISM

What is it?

Definitions

Sensationally presenting another person’s work as if it were his or her own, without proper acknowledgment or attribution.

Derived from Greek and Latin words meaning to plagiarize:

The original work need not have been published in order for copying from it to be plagiarism.

Ideas can be plagiarized as well as words, data and images.

The US Office of Research Integrity defines plagiarism as:

“The appropriation of another person’s ideas, processes, results, or words without giving appropriate credit.”

www.publicationethics.org
Common agreed Principles and Approach
International Guidelines/Best Practices and Policies

• For authors
• For editors

Developed at 2nd World Conference on Research Integrity, Singapore, July 2010

By editors from different countries and disciplines

Summary
• The research being reported should have been conducted in an ethical and responsible manner and should comply with all relevant legislation.
• Researchers should present their results clearly, honestly, and without fabrication, falsification or inappropriate data manipulation.
• Researchers should strive to describe their methods clearly and unambiguously so that their findings can be confirmed by others.
• Researchers should adhere to publication requirements that submitted work is original, is not plagiarised, and has not been published elsewhere.
• Authors should take collective responsibility for submitted and published work.
• The authorship of research publications should accurately reflect individuals' contributions to the work and its reporting.
• Funding sources and relevant conflicts of interest should be disclosed.

www.publicationethics.org
COPE – in Singapore
International standards for editors

Summary

• Editors are accountable and should take responsibility for everything they publish
• Editors should make fair and unbiased decisions independent from commercial consideration and ensure a fair and appropriate peer review process
• Editors should adopt editorial policies that encourage maximum transparency and complete, honest reporting
• Editors should guard the integrity of the published record by issuing corrections and retractions when needed and pursuing suspected or alleged research and publication misconduct
• Editors should pursue reviewer and editorial misconduct
• Editors should critically assess the ethical conduct of studies in humans and animals
• Peer reviewers and authors should be told what is expected of them
• Editors should have appropriate policies in place for handling editorial conflicts of interest

International standards for authors and editors

In:

PROMOTING RESEARCH INTEGRITY IN A GLOBAL ENVIRONMENT

edited by Tony Mayer (Nanyang Technological University, Singapore) & Nicholas Steneck (University of Michigan, USA)

?Nov 2011
Best Practices for Authors

10 Principles

- Ethical research
- Originality
- Accuracy
- Completeness
- Honesty
- Balance
- Authorship/acknowledgement
- Peer review and publication convention
- Responsibility and responsiveness

Equator
(http://www.equator-network.org/)
Published paper

- Open and truthful narrative of research planning and findings
- Clear and understandable
- Valid and appropriate analysis of data
- Putting findings into context (mini-metas, limitations of study, future directions)
- Improved by criticisms (peer review, editors)
- Stimulation of further discussion (correspondence)
- Part of research evidence

"For me, integrity is not a fixed state of mind, it is something I have to work for every day"

Richard Smith