

Medical Publishing Landscape

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Chair – ALPSP Association of Learned & Professional Scholarly Publishers

What I'll cover.....

- About BMJ
- What medical journals do
- Features of medical publishing landscape
- The BMJ's Editorial Development strategy
- Peer Review
- Metrics
- Scientific Misconduct



Who we are

- Subsidiary of British Medical Association
- •500 staff
- Offices in London, Hoboken, Delhi & Beijing
- The BMJ
- •60+ journals
- Owned, co-owned and contracts
- •Range of evidence based decision support tools and education for clinicians inc...
 - Best Practice
 - Clinical Evidence
 - BMJ Learning
 - On Examination



BMJ

Everything we do is driven by our vision of A Healthier World

and by our 9 core values



350th Anniversary of the first scientific journal

"The Philosophical Transactions, to be <u>composed</u> by Mr Oldenburg, be <u>printed</u> the first Monday of every <u>month</u>, if he have <u>sufficient</u> matter for it, and that that tract be licensed by the Council of this <u>Society</u>, being first <u>revised</u> by some Members of the same"

Editorial

Research

Obituary

Book review

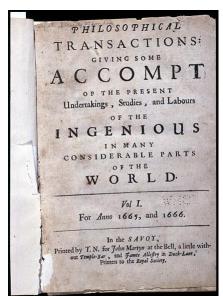
Observational report

Paid for by member subs

Pirate issue

Editorial committee

Oldenburg published the journal at his own personal expense and kept the profits





Scholarly Publishing Facts

- 8.6bn Euros
- 110,000 publishing staff
- 10bn researchers download 2.5bn articles
- 30,000 journals
- 2 million articles
- 20% are Open Access
- Article growth 3.5% per year
- Researchers read an average of 270 articles
- 30 minutes reading each article
- Reviewers spend 5 hours per review
- Reviews 8 articles per year



Publishers by number of journals

60

Springer Nature	3165
Elsevier	2500
Wiley	2388
Taylor & Francis	2105
Sage	750
Wolters Kluwer	672
Hindawi	438
Cambridge University	362
Oxford University	350



BMJ

What are medical journals for?

- Registration
- Dissemination
- Certification
- Archival record



Medical publishers provide.....

- Peer review
- Branding
- Licenses
- Archiving and search
- International reach
- Metrics for impact and usage
- Quality control

- Access
- Education
- Impact
- Sustainability

http://goo.gl/7VoeDK



Major revenue streams

- Institutional Subscriptions 55%
- Personal Subscriptions 4%
- Industry Advertising 10%
- Industry Reprints 5%
- Job ads 1%
- Open Access Fees 15%
- Licensing/syndication Fees 10%



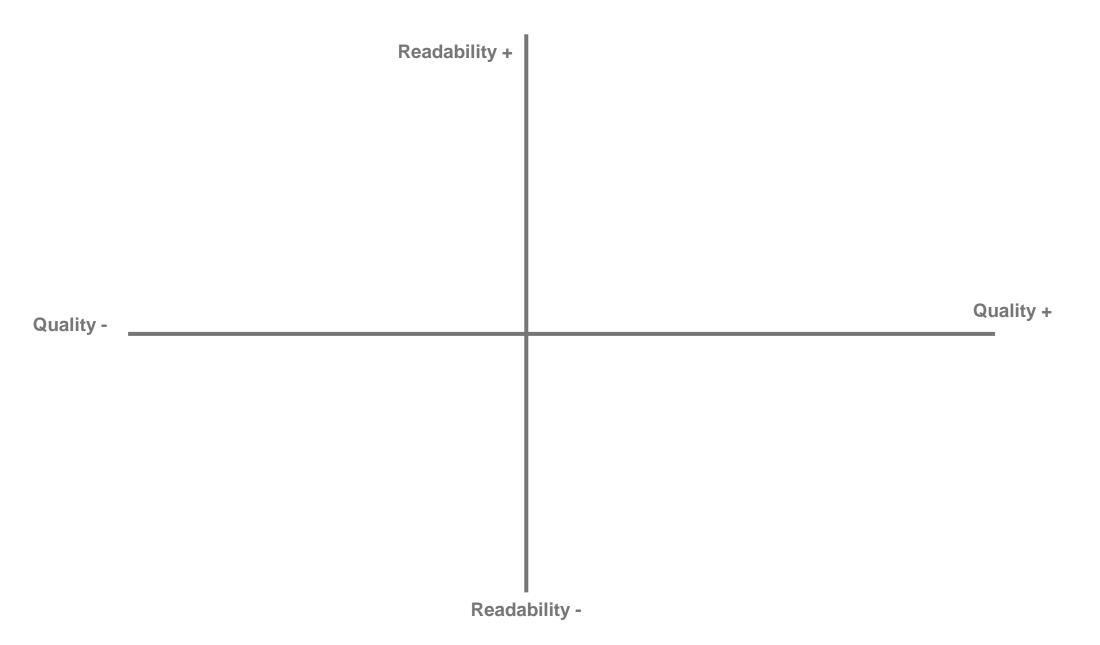
Some features of medical publishing - 2015

- Pressure on library budgets
- Print declining
- Penetrating emerging markets
- Changing revenue streams
- Tough competition for readers and authors
 Peer Review disruptors
- Regulation on pharma industry
- Optimising benefits of social media
- Mobile first

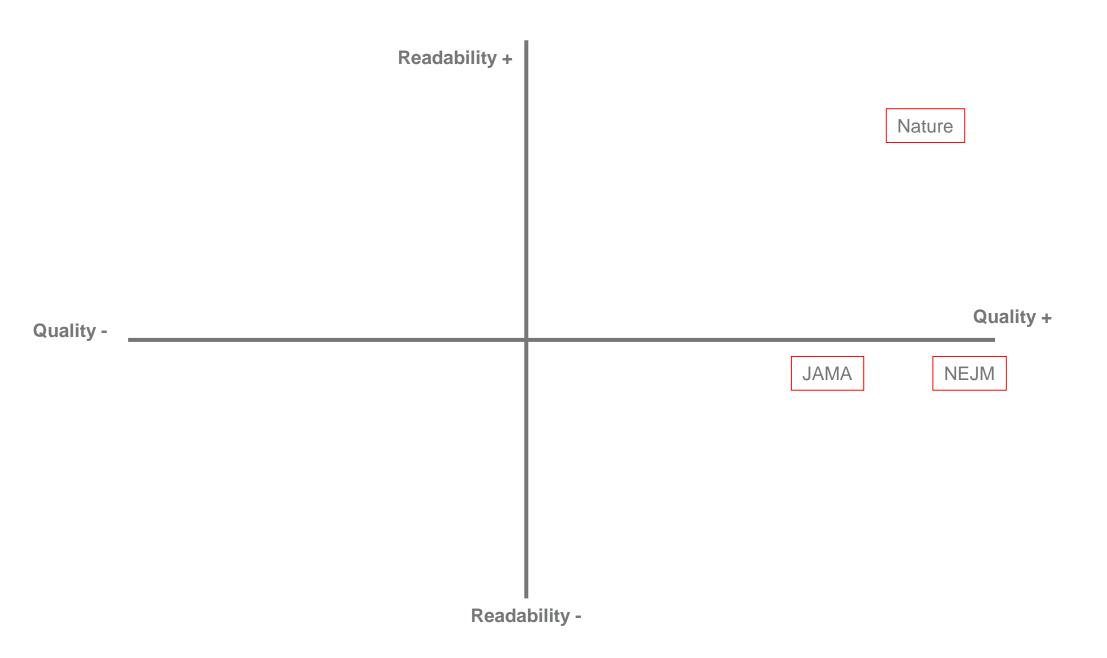
- Open Access mandates
- OA licences & reuse rights
- Demands for text & data mining
- Timely and high quality peer review
- Publication fraud, plagiarism & ethics
- 'Alternative' metrics
- Information overload meeting the needs of readers & researchers...



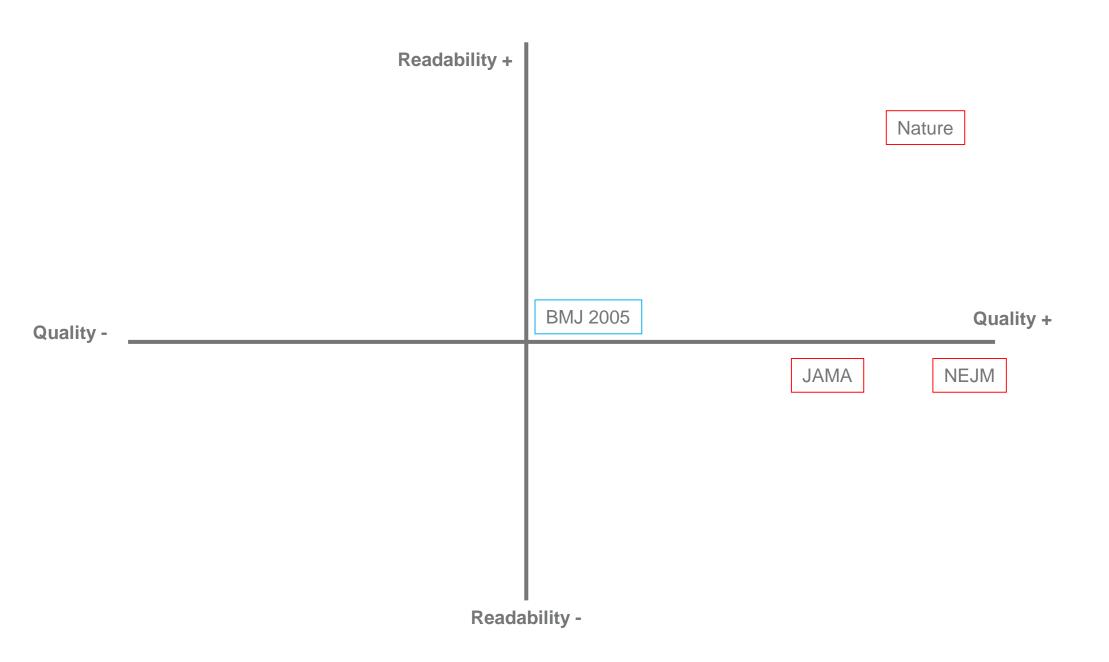
Editorial development – some thinking...



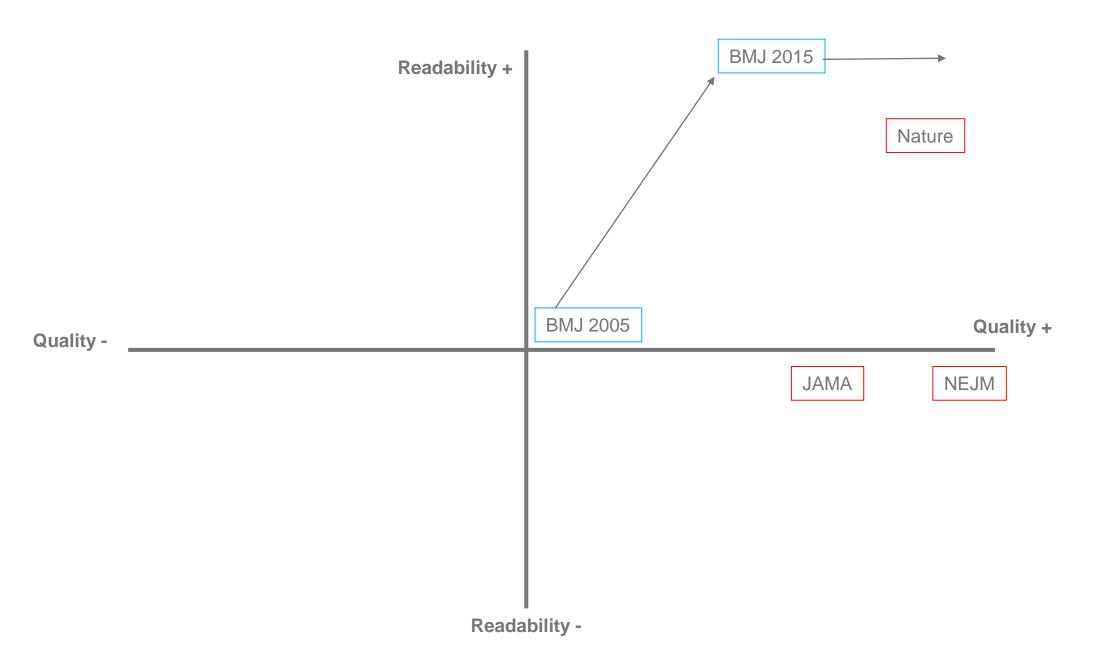








the**bmj**



Peer Review — a changing landscape

Peer review.....what is it for?

- Research quality assurance process
- Improves the quality of published papers.
- Acts as a filter, to the benefit of readers.
- Acts as a seal of approval



Peer review – the critics' view

- Ineffective
- Unreliable
- Poor at detecting errors
- Scope for bias
- Providing scope for reviewer misconduct
- Slow

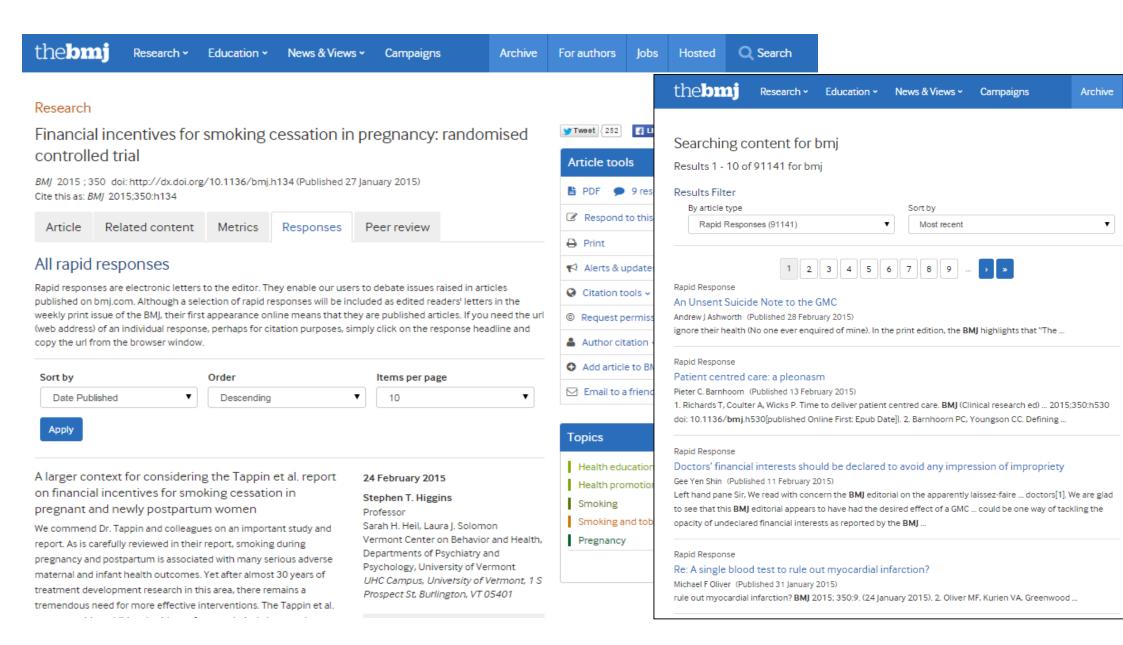


Types of peer review

- Single blind
- Double blind
- Open
- Cascade
- Portable
- Post publication
- http://goo.gl/DUhKBL



Post-publication peer review: 100k rapid responses since 1998



Patient peer review

thebmj

Research -

Education •

News & Views ~

Campaigns

Archive

Guidance for BMJ patient reviewers

Patient peer review at The BMJ

If you're a patient living with disease, a carer of a patient, a patient advocate acting on behalf of a patient group, or you play a leading part in advocating for patient participation and partnership in healthcare we'd like to invite you to take part in a unique initiative. The BMJ has committed to improving the relevance and patient centredness of its research, education, analysis, and editorial articles by asking patients to comment on them. We need your help to make these changes.

If you already review for The BMJ as a researcher or clinician, but you are also interested in reviewing as a patient or patient advocate, you can do this too. We will, however, need you to register a new additional account with a different personal email address, using the guidance below so that we can distinguish your role as a patient reviewer versus a traditional peer reviewer.

Alternative Metrics

altmetrics

Do not use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.

The San Francisco Declaration on Research Assessment (DORA), initiated at the 2012 Annual Meeting of the American Society for Cell Biology by a group of editors and publishers of scholarly journals, recognizes the need to improve the ways in which the outputs of scientific research are evaluated.

What does

DORA

DORA makes one general and 17 specific recommendations.

General recommendation:

Do not use journal-based metrics, such as Journal Impact Factors (JIFs), as surrogate measures of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.

For Organizations That **Supply Metrics**

- Provide access to data
 Discourage data manipulation
 Provide different metrics for primary literature

For Research Institutions

- Consider value from all outputs and outcomes

For Publishers

- provide an array of metrics
 Focus on article-level metrics
- Identify different author contributions
- Open the bibliographic citation data Encourage primary literature citations

For Funding Agencies

- paper, not the JIF of the journal where it was published, is what matters
- Consider value from all outputs and outcomes generated by research

For Researchers

- Cite primary literature
 Use a range of metrics to show the impact of your work
 Change the culture!

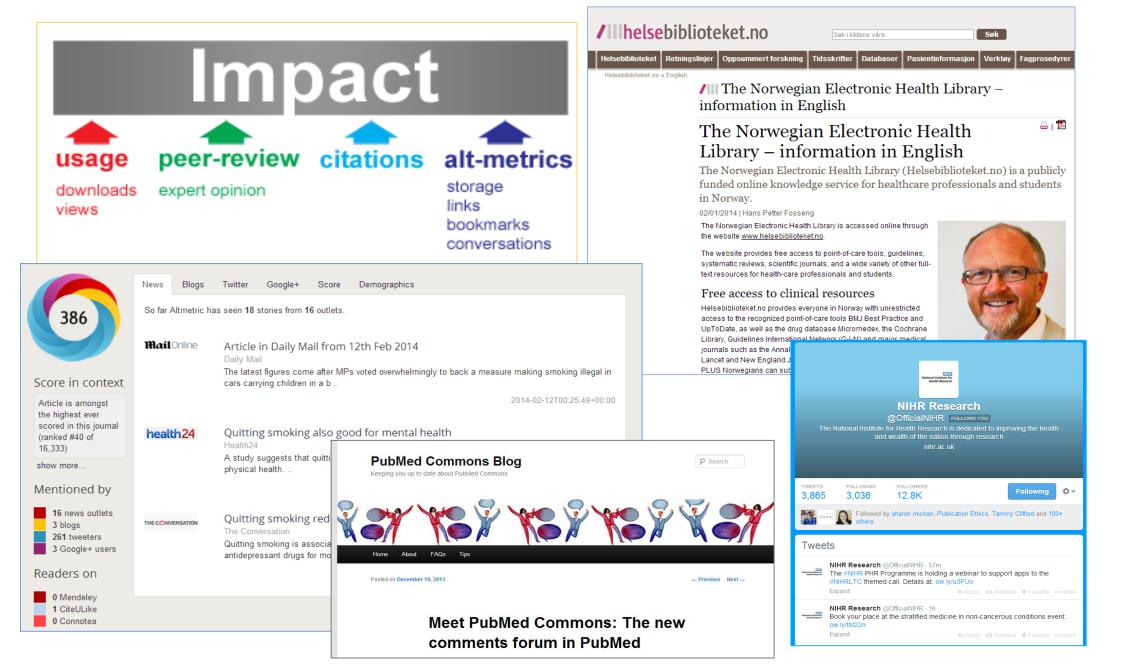


Declaration on Research Assessment



See the full text of DORA at www.ascb.org/\$Fdeclaration.html. Sign the Declaration!

Is Impact Factor on the way out?



Scientific Misconduct - oh dear!

What do we mean by scientific misconduct?

- Falsification of data
- Violation of generally accepted research practices
- Failure to comply with legislative and regulatory requirements for research
- Plagiarism
- Image manipulation
- Misappropriation of others' ideas
- Authorship improprieties
- Inappropriate behaviour in relation to misconduct
- Peer review manipulation or fraud

http://www.wame.org/about/recommendations-on-publication-ethics-policie



Selective reporting of results = misconduct

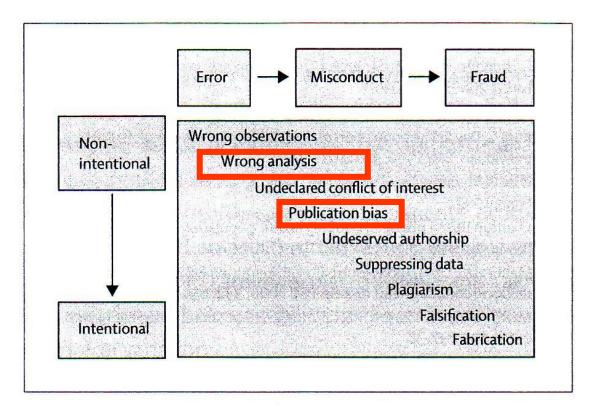


Figure: Slippery slope between honest errors and intentional fraud, with examples in the middle

"...If one assesses the sins they have ranked in terms of their potential for doing harm to patients, biased reporting of research surely has far more serious practical consequences than undeserved authorship and plagiarism."

Iain Chalmers
James Lind Initiative, Oxford
The Lancet 2006;368:450

*Magne Nylenna, Sigmund Simonsen
Department of Public Health and General Practice,
Norwegian University of Science and Technology,
N-7489 Trondheim, Norway

Lancet 2006;367:1882-4



Transparency declaration.....

EDITORIALS

Editorials are usually commissioned. We are, however, happy to consider and peer review unsolicited editorials See http://resources.bmj.com/bmj/authors/types-of-article/editorials for more details

Declaration of transparency for each research article

An antidote to inadequate reporting of research

Douglas G Altman director, Centre for Statistics in Medicine, University of Oxford, Botnar Research Centre, Oxford, UK doug.altman@csm.ox.ac.uk David Moher senior scientist, Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa Hospital - General Campus, Ottawa, ON, Canada K1H 8L6

"It is the responsibility of everyone involved to ensure that the published record is an unbiased, accurate representation of research."1

The research record is often manipulated for short term gain but at the risk of harm to patients. The medical research community needs to implement changes to ensure that readers obtain the truth about all research, especially reports of randomised trials, which hold a special place in answering what works best for patients.

Failure to publish the findings of all studies, especially randomised trials, seriously distorts the evidence base for clinical decision making. A recent systematic review of reboxetine for treating depression found that almost three quarters of included patients were in unpublished trials.2 Of 904 completed trials of interventions for acute ischaemic stroke (1955-2008), a fifth were not properly published, "several of which may be large enough to influence clinical practice and the findings of systematic reviews and meta-analyses."3

Bad as non-publication is, incomplete or misleading publications cause greater problems. Results of clinical trials published in peer reviewed publications may differ from what was previously submitted to regulatory agencies, 46 with the puboutcomes. 18 19 Details of study methods are also often inadequate, especially in relation to allocation. A 2006 study found that only a third of trial reports described how the randomisation sequence was generated and only a quarter described an adequate method of allocation concealment. 20 A review of 357 phase III oncology trials concluded that "numerous items remained unreported for many trials,"21 Harms too are poorly reported, 22 23

The problems associated with publishing and reporting other types of research may be worse than for randomised trials. Although less intensively studied, similar concerns have been expressed in relation to epidemiology,24 25 pharmacoepidemiology,26 diagnosis research,27 prognosis research,28 and preclinical research.29 30 Of course, good reporting is not the same as high quality research. But a full and clear report allows readers to judge a study's reliability and relevance. There are concerns that commercially sponsored research may be more likely to remain unpublished,2 31 but when published these trials TRANSPARENCY DECLARATION

are reported more fully.32

So what is needed? Published research articles should provide a clear description of how researchers conducted their study and what they found. Omission of important details of methods or study conduct should be deemed unaccentable. and journals should not publish them. Although detection of some

picture provides biased and less precise estimates of effectiveness and safety than when the full information is used, and it may compromise the identification of what works best for nationts.

We have a proposal that can be acted on almost immediately. We suggest that authors should sign a publication transparency declaration (box) as part of every journal submission. The same declaration could be appropriate for submissions in other contexts-for example, to regulatory agencies.

Editors and editorial groups can support this initiative by updating their instructions to authors so that a completed publication transparency pledge is required as part of the submission process. We see this action as a necessary scientific analogue of the current widespread practice of asking authors about conflicts of interest. Subsequent revelation of withheld or incorrect information would be evidence of scientific misconduct for which various actions could be taken. We hope

The lead author* affirms that

this manuscript is an honest,

of the study being reported:

accurate, and transparent account

that no important aspects of the

study have been omitted; and

that any discrepancies from the

study as planned (and, if relevant,

registered) have been explained

The manuscript's guarantor.

that this step will encourage authors to reflect more carefully on how they write their article and encourage them to check that they have adhered to relevant reporting guidelines. The BMJ, for which one of us (DGA) is the senior statistics editor, and BMI Onen are leading the way

by implementing this

The lead author* affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

*The manuscript's guarantor.

Altman DG, Moher D. Declaration of transparency for each research article. BMJ2013:347:f4796



Plagiarism and image manipulation

Plagiarism detection - we'll catch them out!

SIMILARITY REPORT

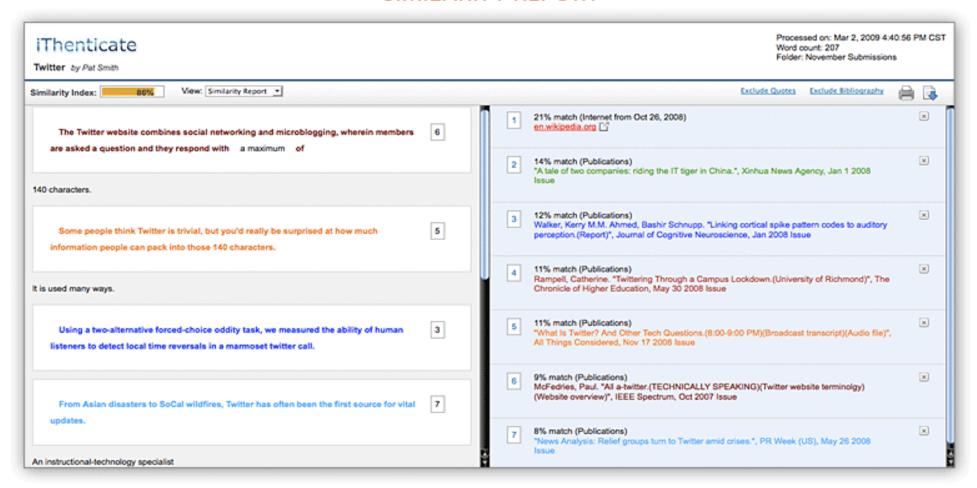
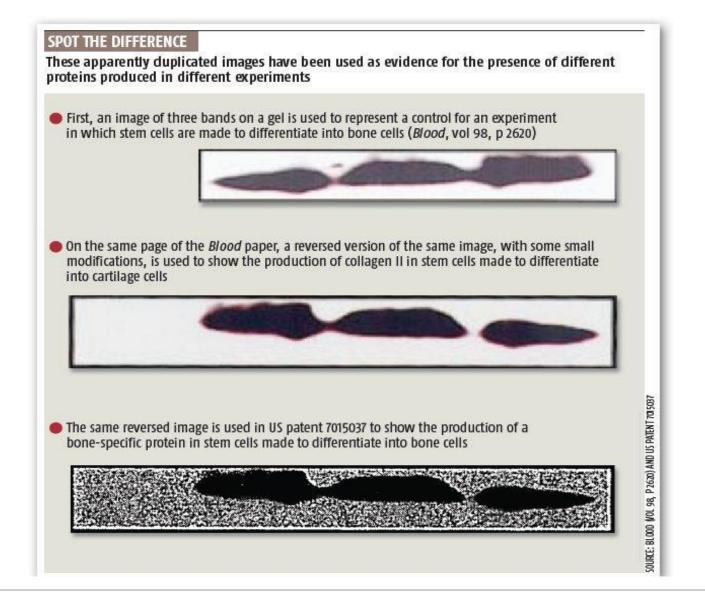




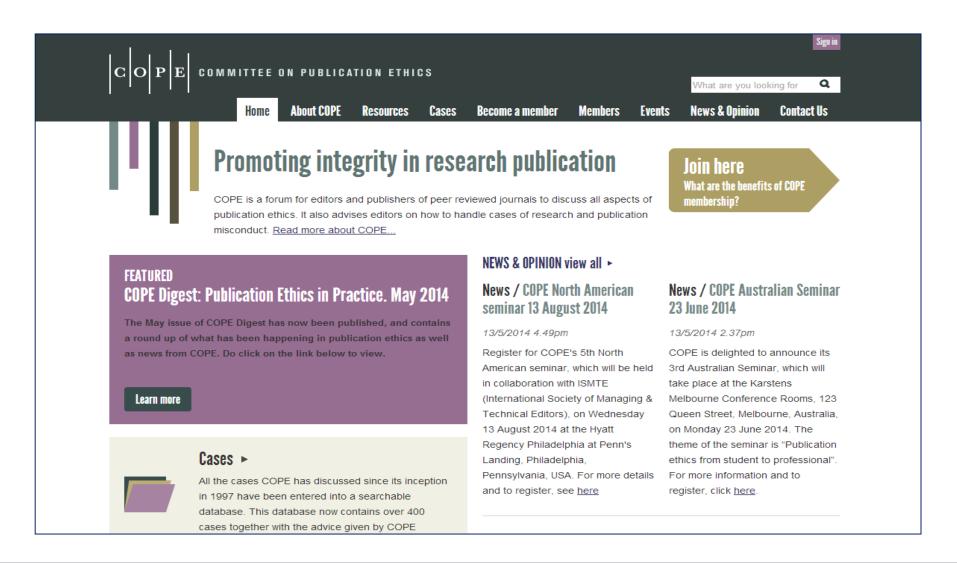
Image checking - it's complicated





Committee on Publication Ethics:

advises editors of 5000+ journals



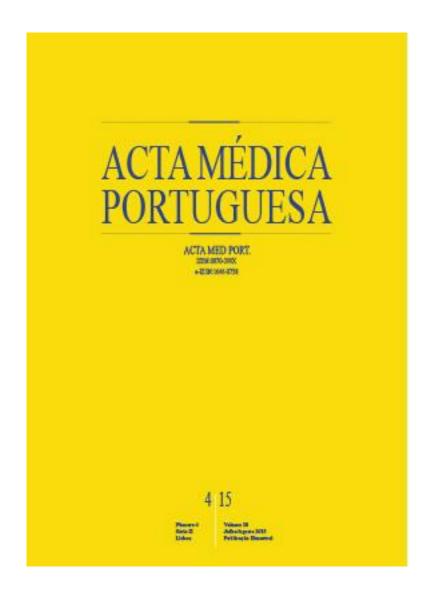


In summary.....

- Lots of changes
- New markets
- New business models
- Funder mandates
- Technology challenges
- Ethical challenges
- But.....



It's not all bad.....!







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Thank you

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