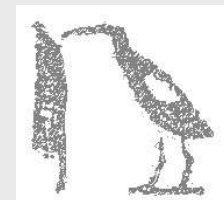


# Journal metrics

Elizabeth Wager *PhD*  
*Publications Consultant*

*Sideview, Princes Risborough, UK*

[liz@sideview.demon.co.uk](mailto:liz@sideview.demon.co.uk)

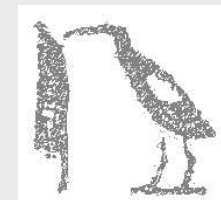


# Measuring journal performance: You can measure

- Outcomes

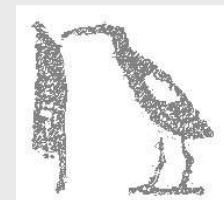


- Process



# What aspect do you want to measure?

- Profitability
- Reporting quality
- Speed of publication
- Use / reach of articles
- Ethical processes



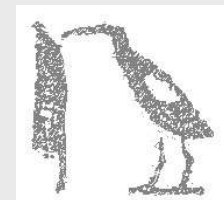
# What aspect do you want to measure?

## Aspect

- Profitability
- Reporting quality
- Speed of publication
- **Use / reach of articles**
- **Ethical processes**

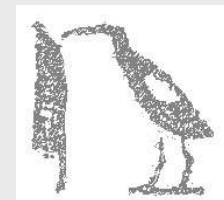
## Metric

- Profit / loss
- Check against CONSORT
- Check against targets

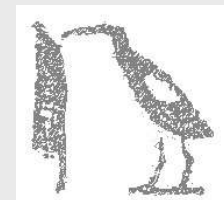
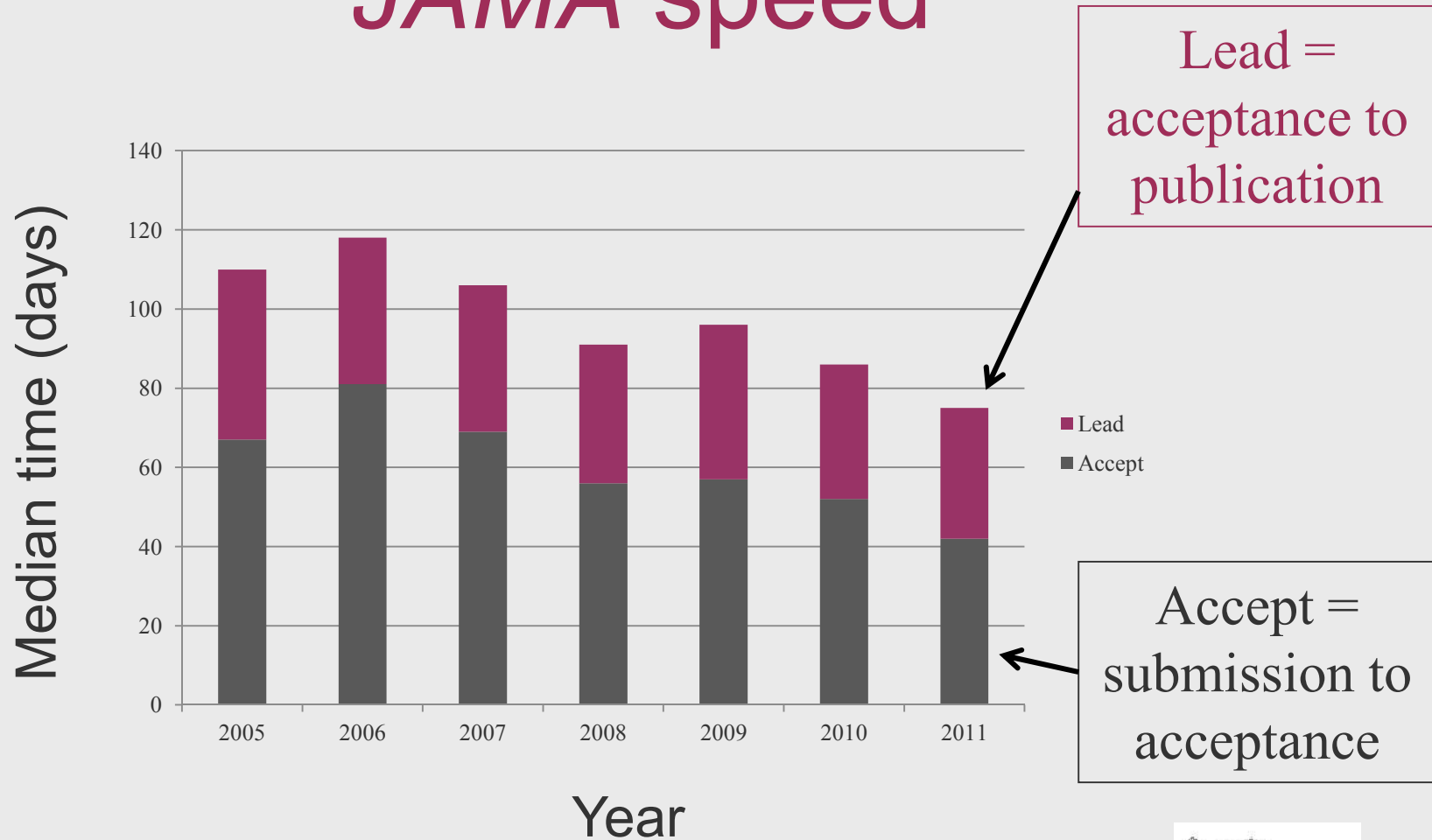


# JAMA performance 2011

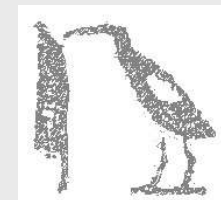
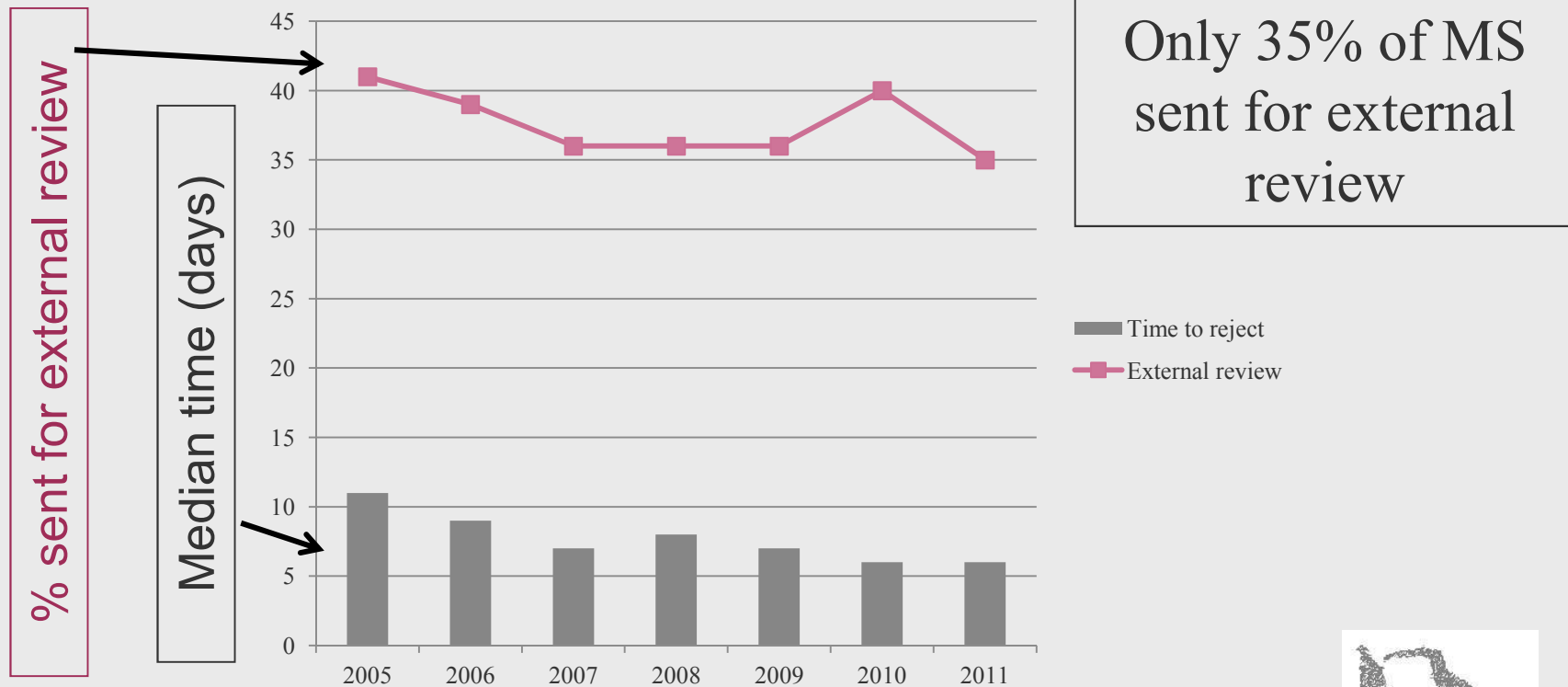
- Median time to reject 6 days
- Median time to accept 42 days
- Median lead time 33 days  
(acceptance to publication)
- Median publication time 80 days  
(submission to publication)
  
- 35% of MS (total =>6000) sent for external review
- 65% rejected without external review
- Acceptance rate 9%



# JAMA speed

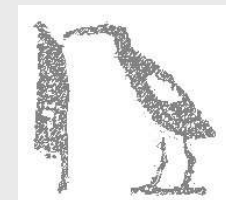


# JAMA: in-house review



# JAMA performance 2013

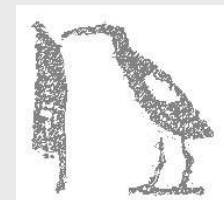
- Median time to reject 6 days
- Median time to accept 27 days
- Median lead time  
(acceptance to publication) 32 days
- Median publication time  
(submission to publication) 77 days
- Total MS received 6937
- % sent for external review 30%
- Acceptance rate (overall) 9%
- Acceptance rate (research) 4%





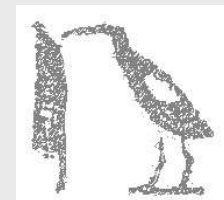
# CMRO performance

- Mean time for rejection / provisional acceptance 14 days
- Mean time acceptance to publication  
online: 14 days  
print: 28 days
- 95% of MS sent for external review
- 95% of MS require resubmission
- Acceptance rate 75%



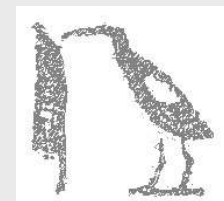
# Don't ignore 'simple' self-collected metrics

- Number of submissions
  - % from target area / global
- Speed of decision
- Speed of publication
- Acceptance rate



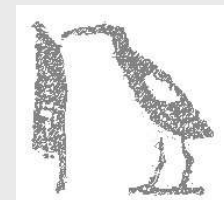
# Use / impact: journals

- Impact factor – measures average citations in 2 years after publication
- Unofficial impact factor
- SCImago Journal Rank
- Google Scholar Metrics (new in 2012)
- Eigenfactor Score (5-year data, includes cost-effectiveness)



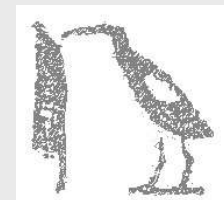
# Websites

- Impact Factors: <http://thomsonreuters.com>
- SCImago Journal Rank: [www.scimagojr.com](http://www.scimagojr.com)
- Google Scholar  
[http://scholar.google.co.uk/citations?view\\_op=top\\_venues](http://scholar.google.co.uk/citations?view_op=top_venues)
- Eigenfactor: [www.eigenfactor.org](http://www.eigenfactor.org)



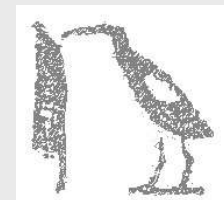
# IF / Web of Science

- Run by Thomson Reuters
- Costly subscription required
- Six databases with 12,000 journals
- Used to determine Impact Factors, Eigenfactor and Article Influence scores
- IF = 2-year average citation



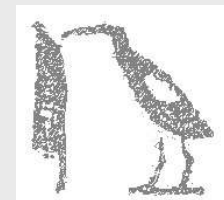
# SCOPUS / SCImago

- Run by Elsevier
- Subscription based
- Includes c 18,000 journals
- Of which, 16,500 = STM journals
- Used to calculate SCImago Journal Rank and h-index



# Google Scholar

- Free (no subscription needed)
- Broad range of electronic citations (books, journals, websites, etc.)
- Not necessarily peer-reviewed
- Used to calculate Google Scholar Metrics

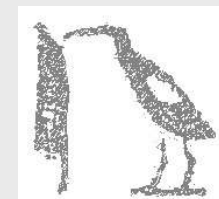


English

- Business, Economics & Management
- Chemical & Material Sciences
- Engineering & Computer Science
- Health & Medical Sciences
- Humanities, Literature & Arts
- Life Sciences & Earth Sciences
- Physics & Mathematics
- Social Sciences
- Chinese
- Portuguese
- German

Top publications - English [Learn more](#)

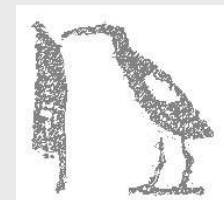
Publication	h5-index	h5-median
1. Nature	355	495
2. The New England Journal of Medicine	329	495
3. Science	311	431
4. The Lancet	248	381
5. Cell	223	343
6. Proceedings of the National Academy of Sciences	217	280
7. Journal of Clinical Oncology	205	306
8. Chemical Reviews	193	339
9. Physical Review Letters	191	263
10. Journal of the American Chemical Society	190	250
11. Nature Genetics	188	270
12. JAMA	181	288





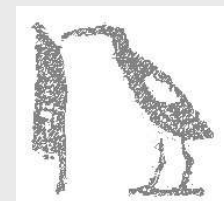
# Eigenfactor score

- Run by academics from Univ Washington
- Similar to Google ‘page rank’ algorithm (i.e. weighted citation rank)
- Ranks journal’s importance
- Uses 5-year citation data
- Influenced by number of publications (large journals get a higher score)



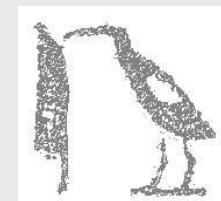
# Different systems give different answers!

- Kulkarni et al *JAMA* 2009;**302**:1092-6
- Compared Web of Science, Scopus and Google Scholar for 328 articles
- Got different numbers of citations!
  - WoS 68,000
  - Scopus 82,000
  - Google Scholar 83,500



# Different metrics

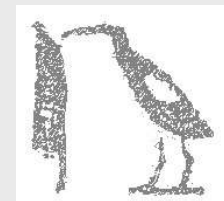
	IF	Eigenfactor	SCImago JR	H-index
NEJM	53.30	0.665	9.740	619
Nature	36.28	1.656	14.548	734
Science	31.20	1.412	11.187	711
PNAS	9.68	1.603	5.350	464
Lancet	38.28	0.361	5.917	453



# What is your journal's circulation?

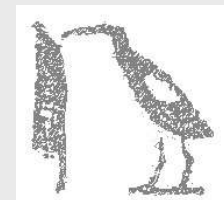


This was easy to measure in the days of print ...



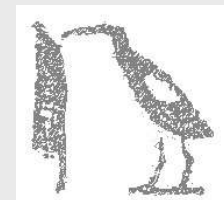
# *JAMA* now records 'Readers, listeners, viewers, learners, networkers'

- |                             |            |
|-----------------------------|------------|
| ■ Print circulation         | 325,000    |
| ■ Electronic alerts         | >400,000   |
| ■ Video news report viewers | 16 million |
| ■ Podcast listeners         | 15,000     |



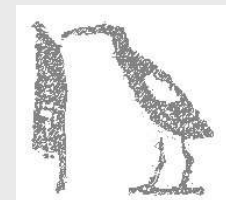
# *JAMA* social media

- Facebook followers 45,000
- Twitter followers 60,000



# Use / impact: articles

- Article-level metrics
- Google Scholar citations
- Number of views
- Number of PDF downloads



# PLoS Article-level metrics

## CONSORT for Reporting Randomized Controlled Trials in Journal and Conference Abstracts: Explanation and Elaboration

Article

Metrics

Related Content

Comments: 2

### Article Usage ?

Total Article Views

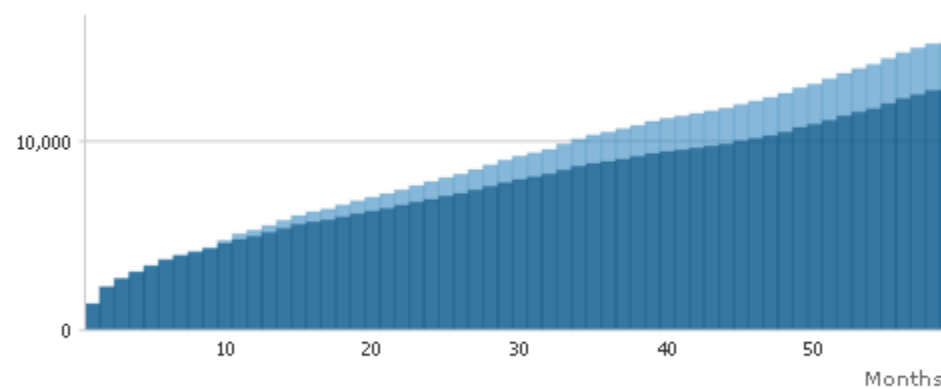
**15,171**

Jan 22, 2008 (publication date)  
through Nov 4, 2012\*

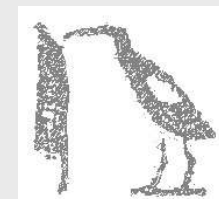
	HTML Page Views	PDF Downloads	XML Downloads	Totals
PLoS	8,784	3,843	64	<b>12,691</b>
PMC	2,442	38	n.a.	<b>2,480</b>
Totals	<b>11,226</b>	<b>3,881</b>	<b>64</b>	<b>15,171</b>

**34.57%** of article views led to PDF downloads

Cumulative Views



\*Although we update our data on a daily basis, there may be a 48-hour delay before the most recent numbers are available. PMC data is posted on a monthly basis and will be made available once received.





## Citations

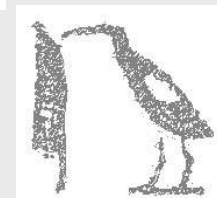
 110	 68	 33	 96	 Search
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## Social Networks

 7	 51
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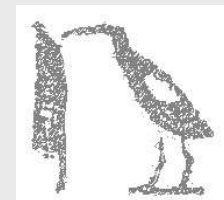
## Blogs and Media Coverage

 1	 Search
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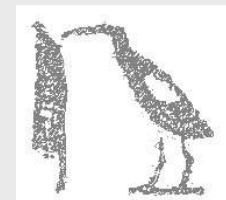
# Social media

- ‘Can Tweets predict citations?’  
*J Med Internet Research* 2011;13:e123
  - ‘tweetations’
  - ‘twimpact factor’



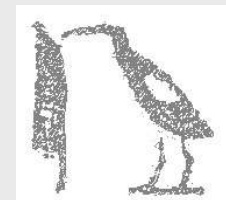
# Usage metrics: key points

- Different systems give different answers
- Therefore hard to compare between different systems
- Also difficult to interpret (what is good?)
- But useful to monitor trends over time



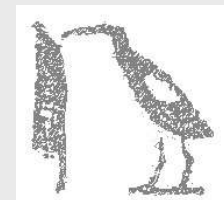
# How to measure quality?

- Production quality (timeliness)
- Reporting quality (guideline adherence)
- Ethical standards ....



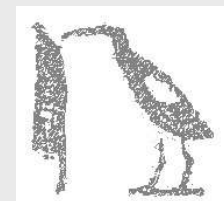
# COPE ethical audit

- Available to COPE members
- Self-completed tool
- 22-items
- Based on COPE Code of Conduct and Best Practice guidelines (freely available)
- Used (adapted) by several major publishers



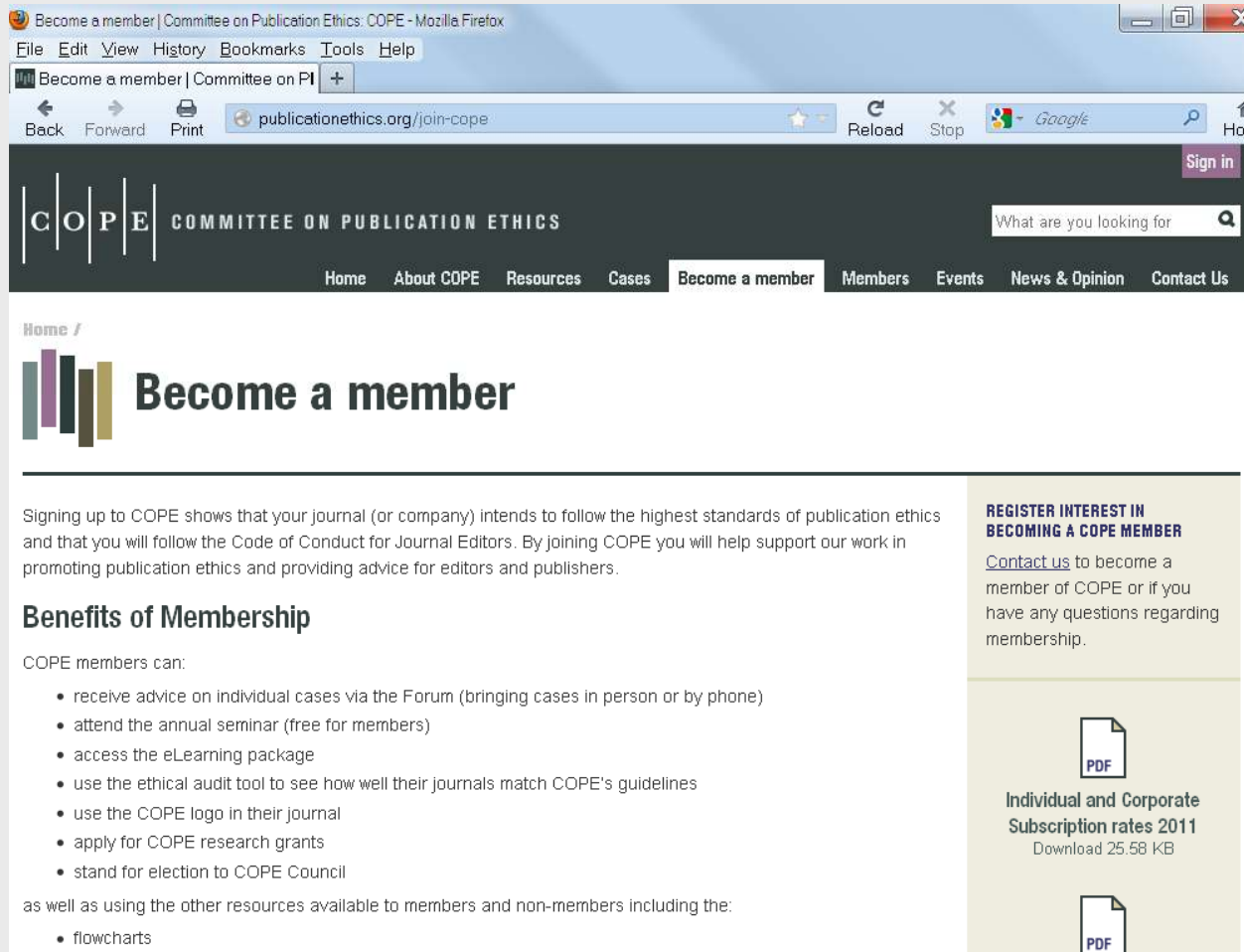
# Sample topics

- Publishing details of how cases of suspected misconduct are handled
- Declaring reviewers' competing interests
- Publishing an appeals mechanism
- Publishing study funding details
- Following COPE flowcharts



# COPE welcomes new members

([www.publicationethics.org](http://www.publicationethics.org))



The screenshot shows a Mozilla Firefox browser window with the address bar at [publicationethics.org/join-cope](http://publicationethics.org/join-cope). The website header features the COPE logo and the text 'COMMITTEE ON PUBLICATION ETHICS'. A search bar is present with the placeholder text 'What are you looking for'. The navigation menu includes 'Home', 'About COPE', 'Resources', 'Cases', 'Become a member', 'Members', 'Events', 'News & Opinion', and 'Contact Us'. The main content area is titled 'Become a member' and contains the following text:

Signing up to COPE shows that your journal (or company) intends to follow the highest standards of publication ethics and that you will follow the Code of Conduct for Journal Editors. By joining COPE you will help support our work in promoting publication ethics and providing advice for editors and publishers.

### Benefits of Membership

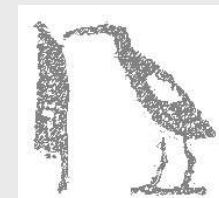
COPE members can:

- receive advice on individual cases via the Forum (bringing cases in person or by phone)
- attend the annual seminar (free for members)
- access the eLearning package
- use the ethical audit tool to see how well their journals match COPE's guidelines
- use the COPE logo in their journal
- apply for COPE research grants
- stand for election to COPE Council

as well as using the other resources available to members and non-members including the:

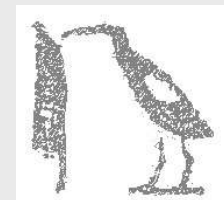
- flowcharts

On the right side of the page, there is a section titled 'REGISTER INTEREST IN BECOMING A COPE MEMBER' with a link to 'Contact us'. Below this, there are two PDF download links: 'Individual and Corporate Subscription rates 2011' (Download 25.58 KB) and another PDF link.



# Key points

- There are many different types of metrics
- Important to define what YOU want to measure!
- Don't forget 'simple' metrics (eg number of submissions / acceptance rate)





Beware of metrics that measure  
"the price of everything and  
the value of nothing"

Oscar Wilde  
*Definition of a cynic*

