



ISMTE

10 August 2017 • Denver, CO

Field Guide to Editorial Reporting

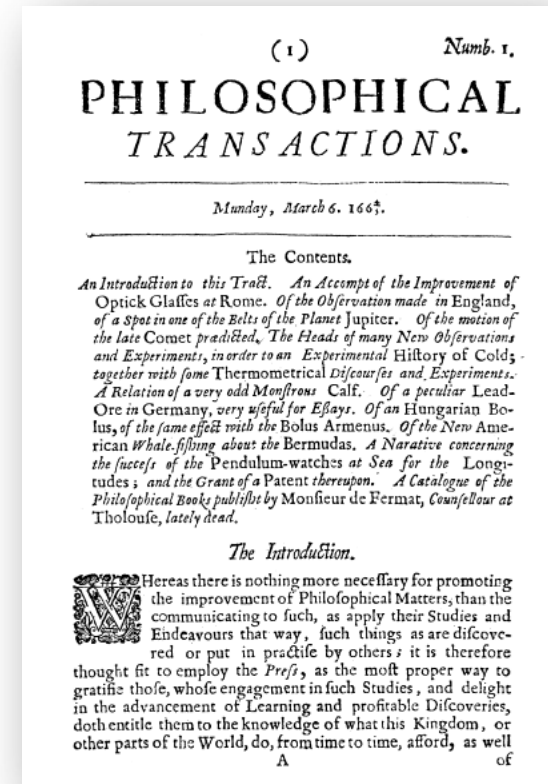
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CURRENT STATE OF EDITORIAL REPORTING

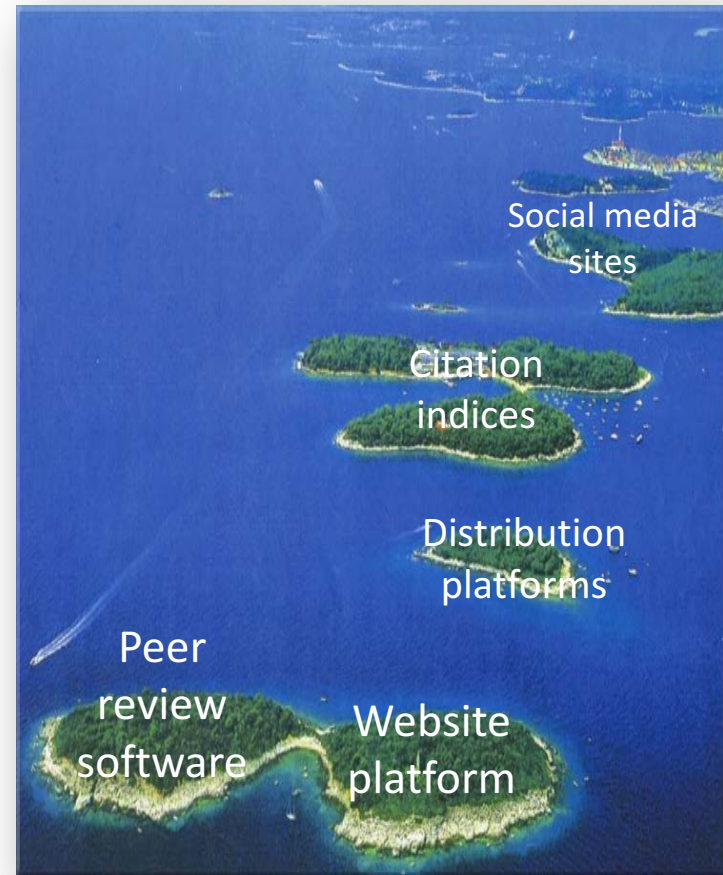
- Editorial report an immature literary form – resembles early days of scientific discourse (pre-IMRAD)
- Processes are closed, reports not published (perhaps traded)
- Isolation breeds closed practices, lack of ability to build on accumulated knowledge



Whither Oldenburg's
editorial report?

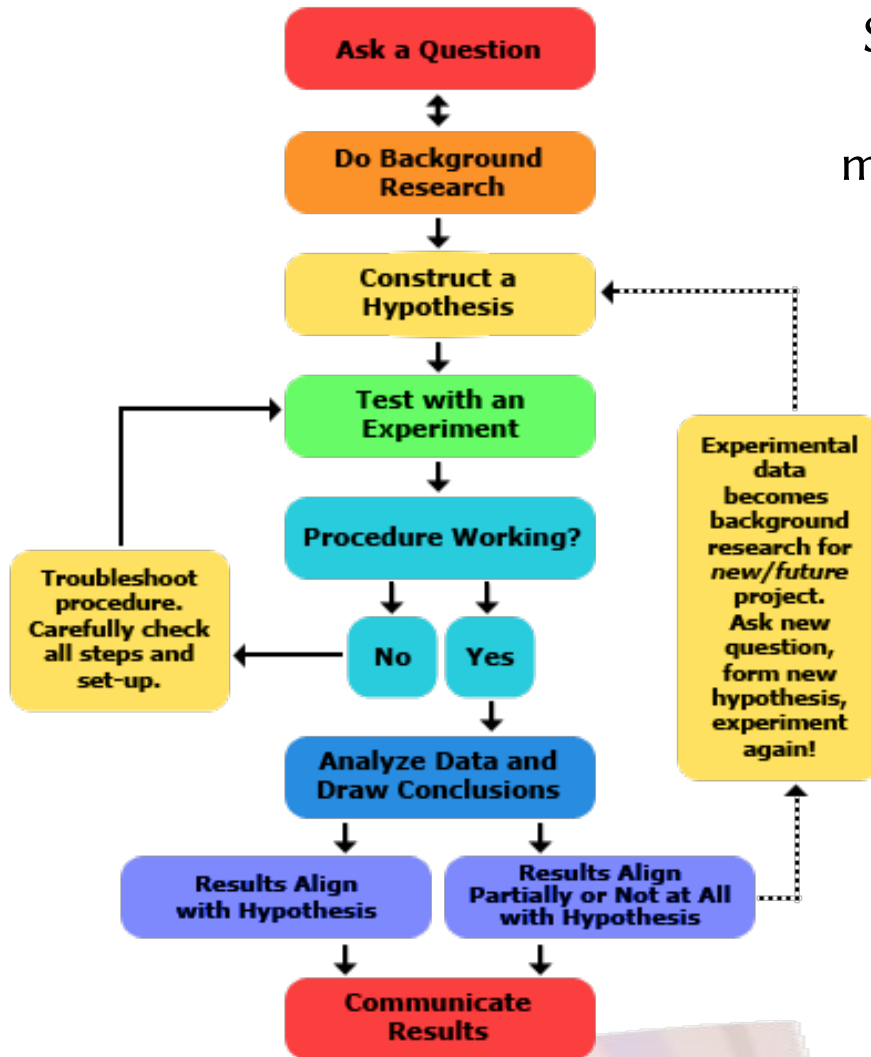
DATA ARCHIPELAGOS

- Reporting is complicated by isolated systems, data stranded in digital silos or tenuously linked
 - Current focus on linking parts of the ecosystem
- Editorial offices and processes are diverse, but their methods shouldn't be
- Time is ripe to develop guidelines



GOOD METHODS CAN BE ADAPTED

Scientific method should guide us...
explicitly defined questions with
measurable outcomes are even better.



Source: Library of Congress
<http://lcn.loc.gov/50041709>

ROADMAP

Why do we report?

- Purposes of editorial reporting

Who is our audience?

- Defining needs of stakeholders

What are best practices?

- Selecting topics and proper measures
- Tracking data, designing management plans
- Analysis, interpretation, and communication

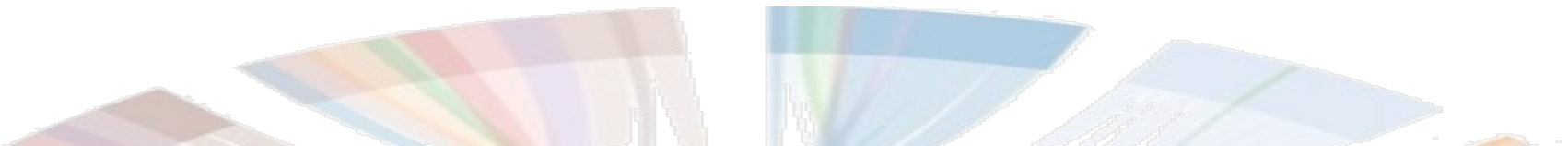
How can we use resulting data?

- Translating well-formed findings into practice
- Data sharing & formal development of guidelines



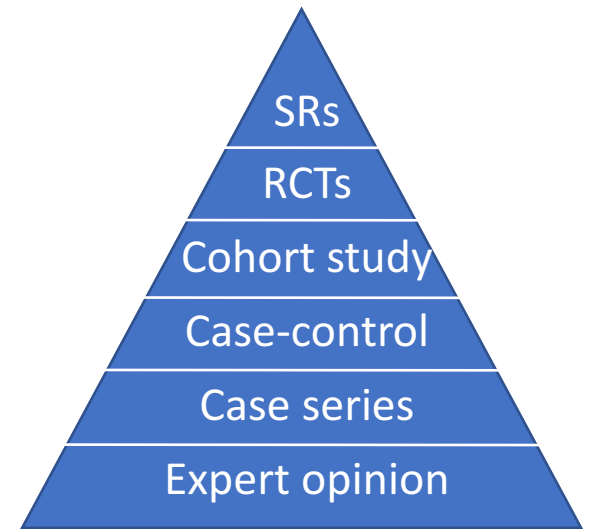
EDITORIAL REPORTS - FUNCTION

- Editorial reports are used to define and inform markers of journal performance.
- Performance indicators are classically derived from peer review process (submission counts, author demographics, turnaround times, reviewer rates)
- Editorial office activity may span multiple domains – reporting on these provides a foundation for new ideas and documentation of past.



EDITORIAL REPORTS - FORM

- Intended use of editorial reports determines form — analogous with clinical levels of evidence informing article types
- Difference between visiting physician for physical (evaluative) and specific problem (diagnostic)
- Four Ps: personalized, predictive, preventative, participatory



STAKEHOLDERS & INTERESTS



PRELIMINARY QUESTIONS

- What are key elements of editorial work that should be communicated to stakeholders?
- What are the relevant data points? How can we find them? Can we build on prior data?
- Do we have the necessary infrastructure in place to capture data? If not, can we build it?

*Not everything that counts can be counted;
not everything that can be counted counts.*





WHAT ABOUT YOUR JOURNAL?

How often do you compose editorial reports?

To whom do you report?

In your experience, what are the most popular topics?

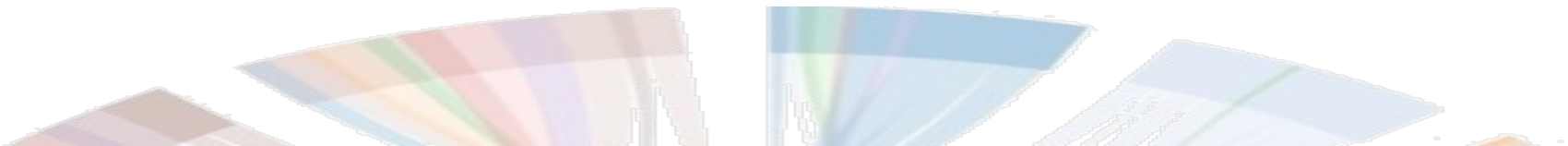
Do you publish benchmark metrics in the journal?

Do you include methods or search parameters?

TYPES OF METRICS

Type	Measures	Examples
Performance Metrics	How well/poorly we're doing in general; summary of operations.	Submission rates, decision times, reviewer performance, revision turnaround times
Progress Metrics	Demonstrate progress toward goal; examine how well journal fulfilling its mission	Authors adopting ORCID, results of reader/author survey, feature launches
Diagnostic Metrics	Analyze a problem and understand the causes; form basis for progress	Why are submissions declining? Where are review time bottlenecks and can we address?

N.B. diagnostic metrics may report on processes that contribute to the achievement of results measured by a progress metric

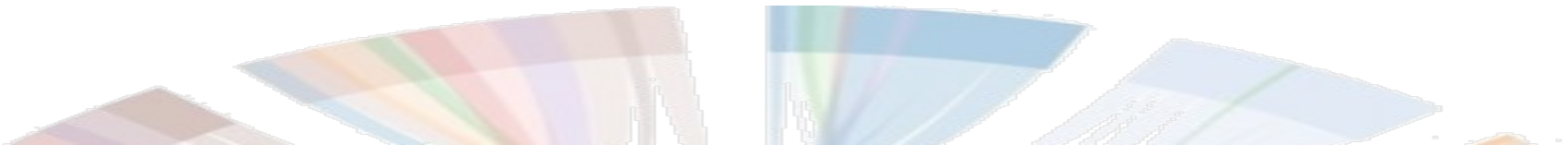


PERFORMANCE METRICS

1. Tell a story: have a plan on how results will be presented at outset.
2. Compare apples to apples – use equivalent time periods
3. Be explicit for posterity: identify search parameters
4. Retain datasets – reproducible results are the best results

Editorial Report Greatest Hits

- Number of submissions (annual, quarterly, monthly)
- Origin of submissions
- Decision turnaround times
- Decisions by article type
- Revision turnaround times
- Editor performance
- Reviewer performance (most productive, fastest, ranked)
- Production turnaround times
- Page usage; web stats



PROGRESS METRICS

Example Progress Topics

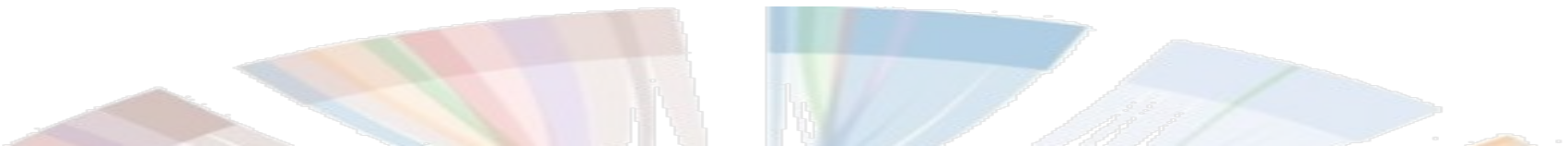
- Results from author call for papers campaign
- Development of reviewer or editor tutorials
- Indicators pointing to need for new pub/feature launch
- Progress report on authorship criteria rollout
- Initiation of new processes (simple submission, reporting guidelines checklists, etc)

1. Demonstrate editorial team's progress toward completion of project.
2. Help leadership or stakeholders understand project requirements, timelines, etc
3. May prompt course-correction.
4. Can take the form of burndown charts, spreadsheets, etc



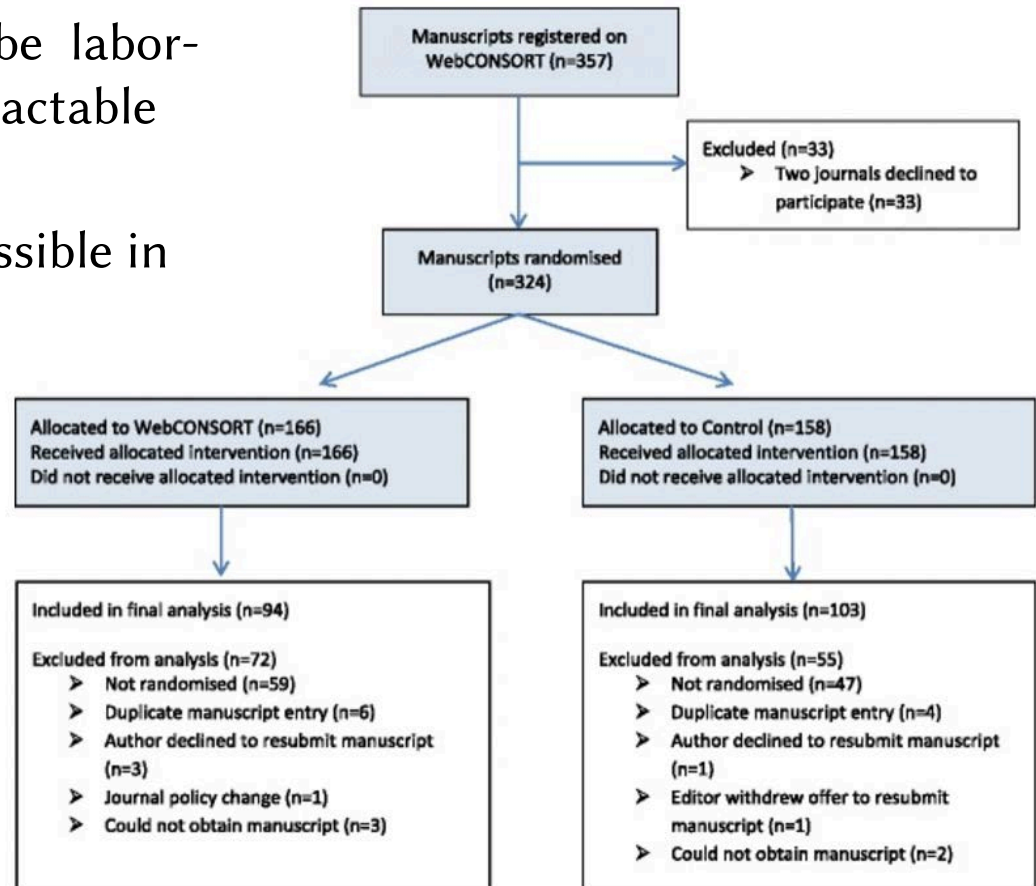
DIAGNOSTIC METRICS

Problem	How do you define the problem?	<i>"For original research papers,</i>
Intervention/ Indicator	What process are you considering?	<i>...does the use of automated pre-due reviewer reminders...</i>
Comparison	What is the alternative that you can use to compare to your intervention?	<i>...compared to papers on which no reviewer reminders are sent...</i>
Outcome	What are you trying to accomplish, improve, or measure?	<i>...significantly decrease time to first decision?"</i>



DIAGNOSTIC METRICS

1. Diagnostic studies can be labor-intensive – save for intractable problems.
2. Controlled trials are possible in editorial software.
3. Methodological clarity is critical – get input early on.
4. Negative results are results too! If your intervention resulted in “no change,” still consider sharing.



BMC Med. 2016; 14: 199.

DATA MANAGEMENT

All 2016 content

2016 inventory

All 2015 content

AAST plenary papers

AAST content

Subs and decs

Rejection rates

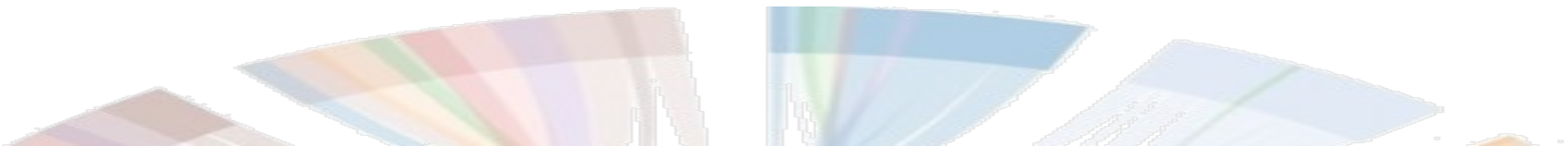
Ed Board

Citation analysis

Prod processing

Production 2014

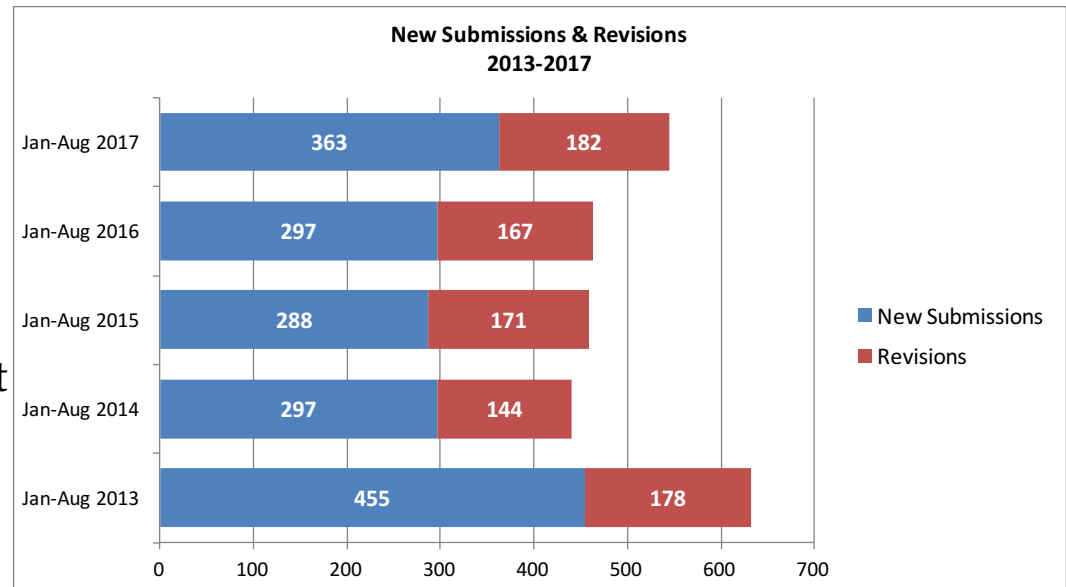
1. Find the data – identify who may need to be tapped to help access.
 - Peer review software reports
 - Custom (prospectively collected)
 - Website usage data (downloads, views, traffic)
 - Altmetrics & citations
2. Data will probably have to be cleaned before use.
Budget time for this.
3. Retain copies of data files outside of the system of origin.
 - If merging sets, keep one master copy of raw.



CLEAN ANALYSES

Analysis will depend on what you're measuring, but process will usually involve:

1. **Summarizing the data.**
Starting point is usually grouping the raw counts into categories, and/or visualizing it to detect trends.
 - Good for any straight counting of data
 - Histograms, bar charts, line charts
 - Compare equivalent time periods



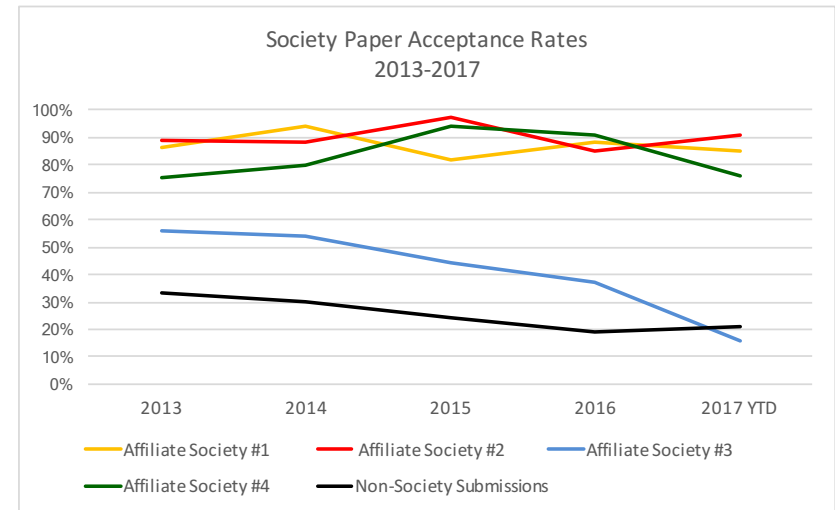
CLEAN ANALYSES

2. Determine effect size.

Calculate mean averages to give information about the size of the effect of whatever you are measuring, in other words, whether it is large or small.

- E.g. average submission/decision/turnaround times
- Be aware that editorial data is skewed – numbers rise and fall throughout year – break into subgroups (Q1, Q2, etc) or draw attention to article-level trends
- Tables or graphs, depending on resolution required

Editor Decision	All Submissions Mean Time to First Decision	Research & Reviews Only Mean Time to First Decision
Accept	6.2 days	35 days
Minor Revision	18.2 days	41.2 days
Major Revision	21.5 days	38.8 days
Marginal	34.1 days	34.1 days
Editorial Reject	3.5 days	3.5 days
Reject	30.2 days	39.2 days
Avg time to all decisions	18.9 days	32 days
Avg revision decision only	24.6 days	38 days

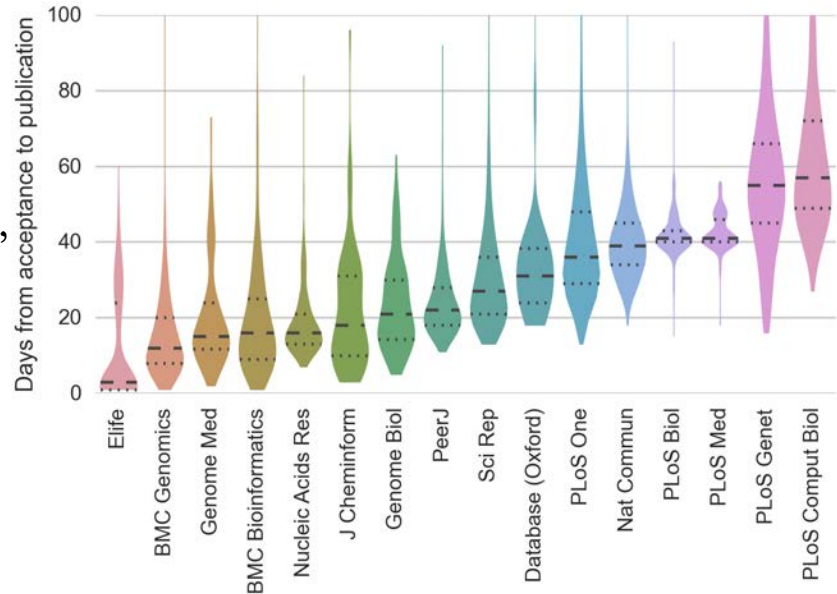


CLEAN ANALYSES

3. Pay attention to deviants.

After you've calculated means for your data, you may run into sets with dispersed results (scores way above or below the mean). For these, you may want to consider standard deviation.

- E.g. decision frequencies by article type, turnaround times, comparisons with competitor titles
- Curves, box-and-whisker plots, or scatter charts



Source: Himmelstein (2015)



EDITORIAL SCIENCE ACTIVITY

1. Working in groups, write a problem or observation for an editorial experiment.
 - E.g. “Why are reviewer acceptance rates declining?”
2. Exchange cards with another group.
3. Generate a hypothesis for the problem or observation you have been given.
4. Exchange cards with another group.
5. Devise a strategy to test the hypothesis you have been given.

TELLING A COMPLEX STORY

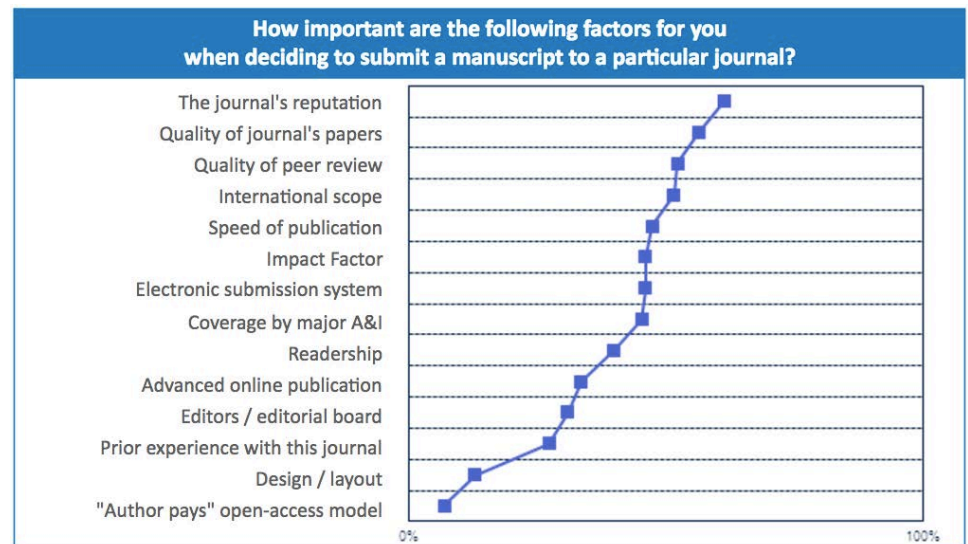
“Graphical excellence is that which gives to the viewer the **greatest number of ideas** in the shortest time with the least ink **in the smallest space.**”
-Edward Tufte

1. We visualize data to tell a story – images can communicate more information than a table in a much smaller space.
2. Above all else, show the data. Imagine reading your report with new eyes – does everything make graphical sense?
3. Put major conclusions into graphical form. Make legends comprehensive and informative.
4. Use a log scale when it is important to understand percent change or multiplicative factors.
5. Graphing data should be an iterative, experimental process. Don't be surprised to spend significant time on one graphic.



ANATOMY OF A REPORT

- I. **The Summary** – Assume that some will only read this page. Can summarize contents of full report (bullet-point style) or ease them in with some light progress reporting. Examples of the latter include:
- Results of readership survey
 - Broad achievements and progress against editorial benchmarks
 - Summary of special events (editors retreat, meeting symposia attended by journal)
 - New publishing initiatives that may affect journal
 - Policy updates

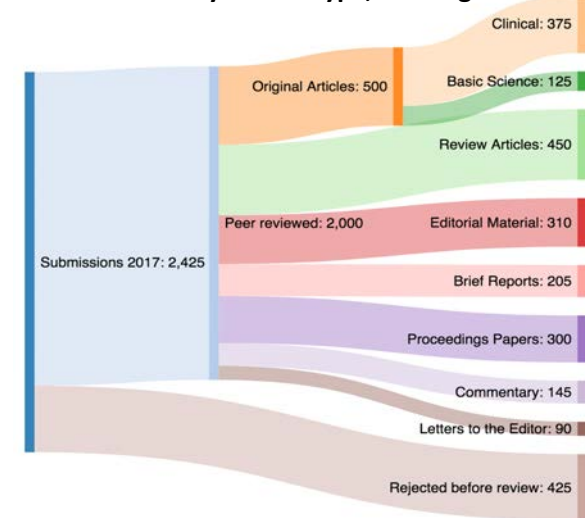


ANATOMY OF A REPORT

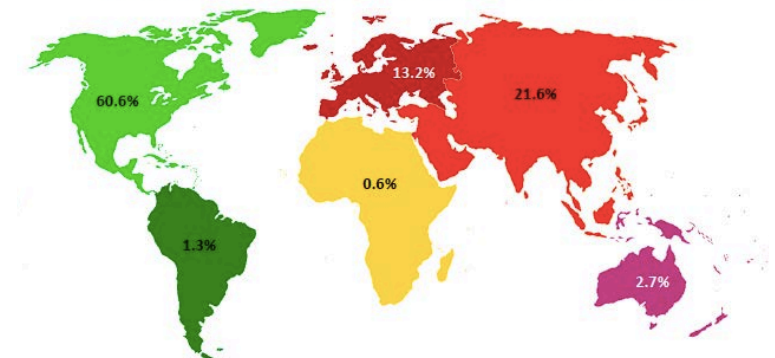
II. Editorial – Overview of traditional editorial indicators. Examples include:

- Submissions received (annually or broken into quarters/years/types)
- Submission demographics (percent by country/region, society affiliation, or article type)
- Submission rate changes
- Meeting papers (submissions, decision rates by society member status)
- Decision trends (overall, by article type, by revision number, SDs)
- Revision trends (% requested/received, author turnaround, editor processing speed)

Submissions by Article Type, Jan-Aug 2017



Geographical Breakdown of 2017 YTD Submissions

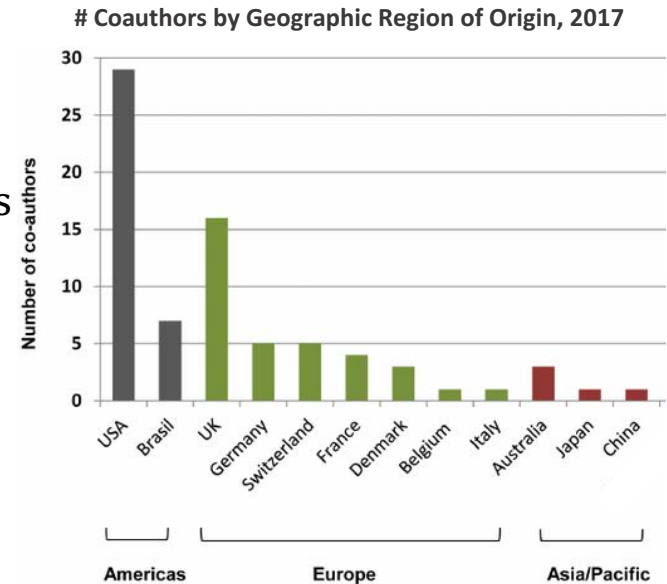


Total new submission counts as of 7 August 2017

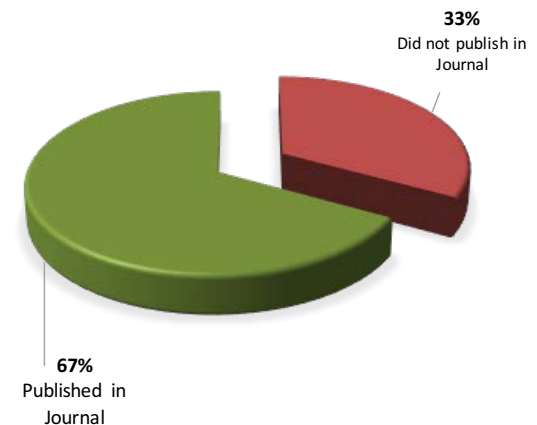
ANATOMY OF A REPORT

III. Published Content – Summary of manuscripts published. Can also be used to draw attention to groups of manuscripts of interest to stakeholders. Examples include:

- Publication counts (online, print, by article type)
- Published author demographics (geographical region, sex, return author status, society member status)
- Affiliate society member publications (broken out by meeting year or calendar – crossref society member list with subs)
- Specialty measures: Coauthor counts by geographical region, other mixed pub data



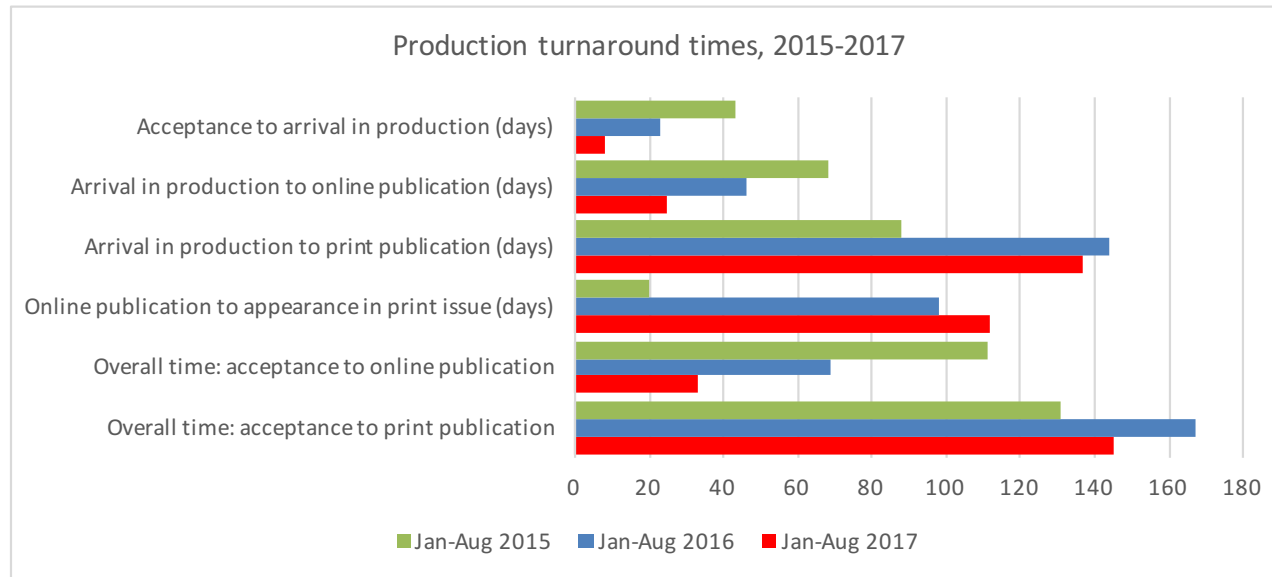
% Society Members published in *Journal*, 2017



ANATOMY OF A REPORT

IV. Production – For journals published by external partner, these points likely covered by publisher. For others, example metrics may include:

- Production turnaround times (acceptance to arrival in production, arrival in production to print/online publication, overall times)
- Publication schedule adherence/late mailing dates (and explanation, when warranted)
- Page usage stats/adherence to print budget

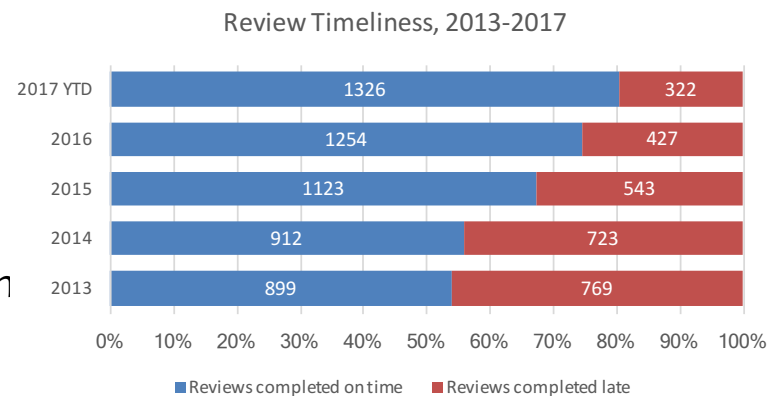
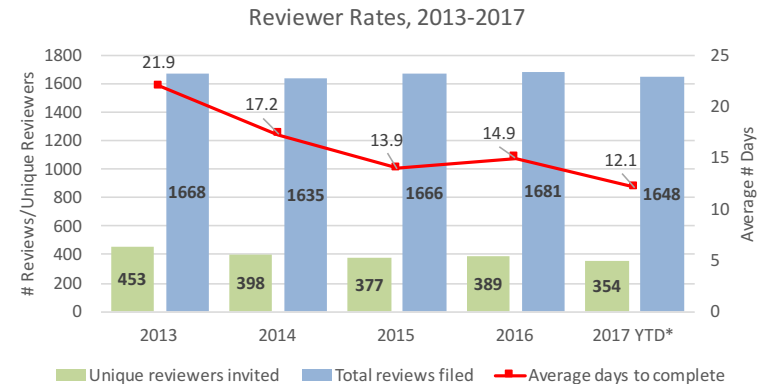


ANATOMY OF A REPORT

V. Reviewers – Report reviewer performance statistics. If aim is to identify editorial board candidates, identify the exceptionally productive/responsive. Can also highlight qualitative, reviewer-related issues in this section.

Might include:

- Number of unique reviewers, reviews filed, average reviews per manuscript
- Average turnaround times
- Changes in reviewer management protocols
- Implementation of reviewer recognition initiatives (Pubons, awards)



ANATOMY OF A REPORT

VI. Editorial Board – Reserve for reports to the editorial board or society stakeholders. Can use for news, additional members, retirees, or performance stats.

- Note changes to criteria for board membership

Criteria for Editorial Board Membership

1. Society X or Y membership
2. H-index ≥ 20 or m-index ≥ 1.5
3. Publication of at least 10 peer-reviewed papers in last 5 years.

VII. Impact/Citations – Not typically reported by editorial office, but if analysis is done, include it. Can cover:

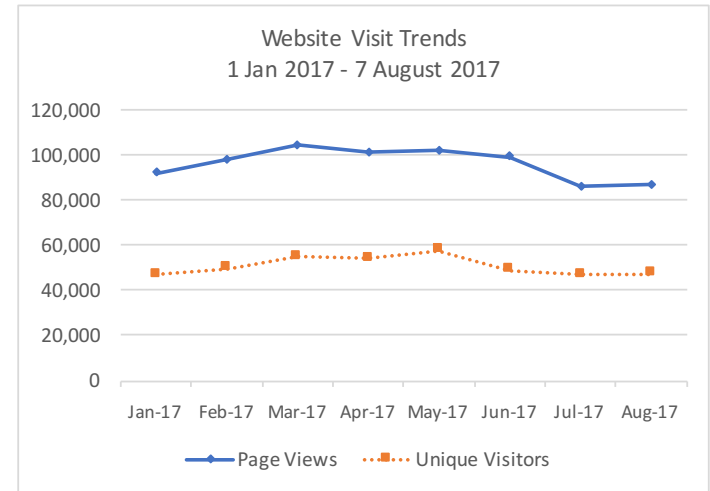
- Impact factor changes
- Highly cited or never-cited articles
- H-indices of subsets of content
- Citation/content analyses of competitor titles

JCR Metrics	2015	2016	% Change
Impact Factor	2.143	2.203	↑ 2.8
5-Year Impact Factor	2.035	2.469	↑ 21.3
Immediacy Index	0.675	0.62	↓ -8.1
Citable Items Counted in IF	123	137	↑ 11.4
Citations Counted in IF	525	553	↑ 5.3
Total Citations to Date*	432	179	-
Eigenfactor Score	0.00731	0.00785	↑ 7.4
Article Influence Score	0.815	0.943	↑ 15.7
Subject Ranking	39/155	41/154	-
Category Percentile (by IF)	75.16%	73.70%	↓ -1.46

ANATOMY OF A REPORT

VIII. Usage statistics – If not already reported by publishing team, place section to discuss online usage, e.g.:

- Unique visitors, time spent on site
- HTML page views/PDF downloads, page type views (abstract, full text)
- Referrer sites
- Can also expand to altmetrics and social authority



IX. Special issues – If produced, editorially driven focus issues or supplements can be addressed. Discussion may include:

- Qualitative description of rationale and any affiliated sponsors/editors of issue
- Post-publication metrics to examine engagement

Pub Date	Supplement Title	Open Access?	Page Views to Date*	Avg Altmetric
Jan-17	Proceedings of Symposium of Learned People 2016	Partial	6,544	3.3
May-17	25th Exploration of Precision Reporting	No	768	2.3
Jul-17	Annual Reviews of Awesome	Yes	2,045	7.2

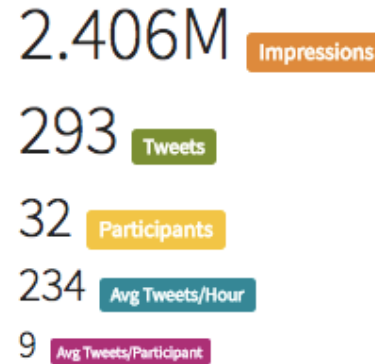
* Page views as of 7 August 2017

ANATOMY OF A REPORT

XII. Online– Reserve for description of standalone digital content, including:

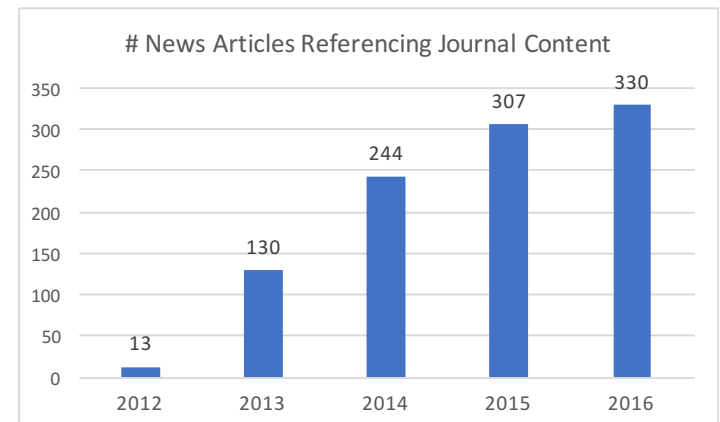
- Webinar, podcast, or video creation and usage statistics
- Social media journal clubs (# of participants, traffic to associated journal content)
- Editorial blogs or reader/author resources

Online Journal Club Activity,
August 2017



XIII. Media – Describe any media outreach activities by editorial office. Document:

- Percent change in lay press coverage, number of articles resulting from PR
- Agreements with outlets covering scholarly content.





COMMUNICATING & DATA SHARING

How do you deliver editorial reports? In person or written work? How often?

Do you post annual reports online? Why or why not?

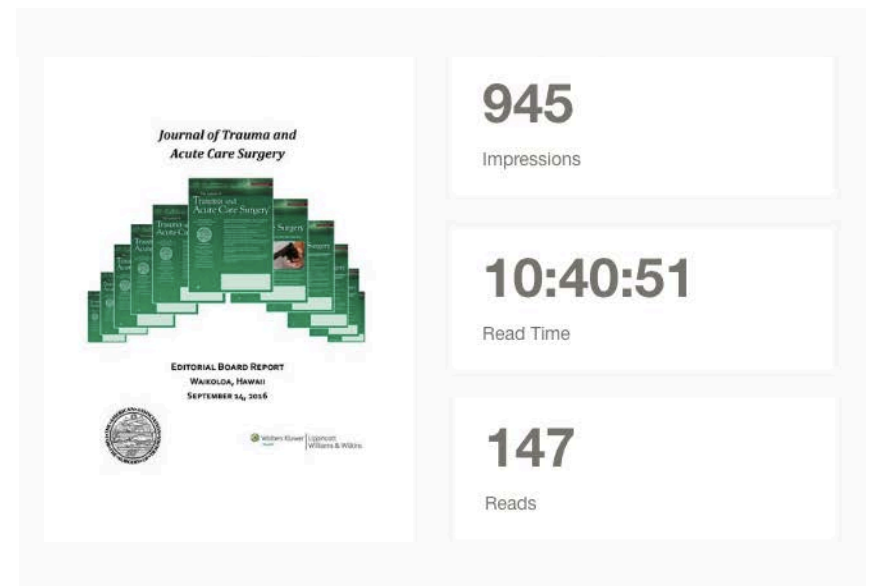
If yes, what kind of data/metrics do you permit to be public-facing?

Any interest in initiative to share data and standardize metrics?

DELIVERING REPORTS

1. Whether paper or digital, reports should be archived.
2. Datasets (spreadsheets, notes) should be preserved for future analyses.
3. Online epub platforms provide good source for even more data (how many readers, which pages drew most interest).

Issuu Dashboard for Privately Posted Editorial Report (Sept 2016)



PRESERVING REPORTS



Editorial Board Reports

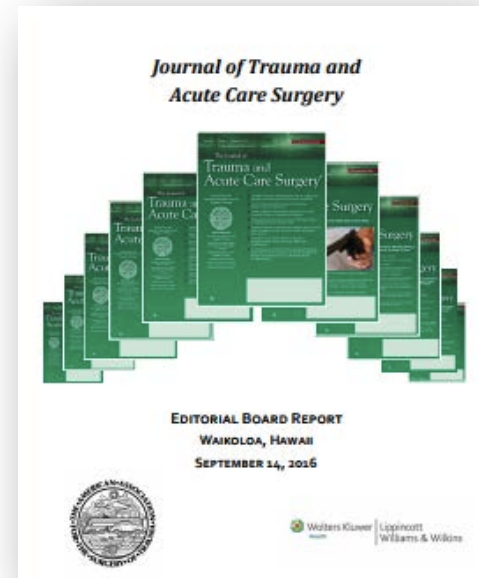
2016 Board Report
Presented September 14, 2016, in Waikoloa, Hawaii.

2015 Board Report
Presented September 9, 2015, in Las Vegas, Nevada.

2014 Board Report
Presented September 10, 2014, in Philadelphia, Pennsylvania.

2013 Board Report
Presented September 18, 2013, in San Francisco, California.




2012 Board Report
Presented September 12, 2012, in Kauai, Hawaii.



REPORTING TOOLKIT

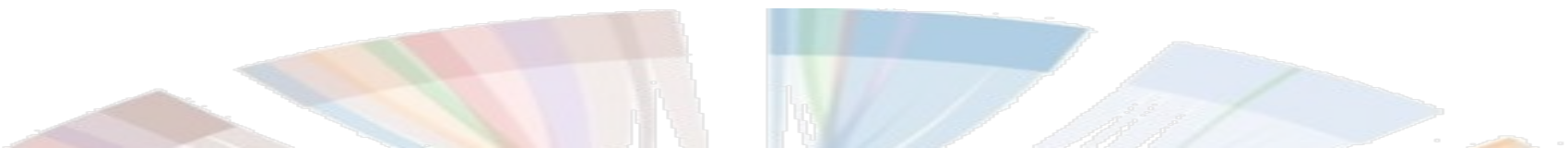
Data collection

Surveys

Survey provider	Free version	Pro version
	Unlimited responses/survey Data export, basic reports Logic threading, mobile	n/a
	100 responses/survey 3 free surveys/user Data export & reports	\$25/mo Unlimited responses & fields Import from Word/Excel
	100 responses/mo 10 fields/typeform Metrics & reporting	\$30/mo Unlimited responses & fields Metrics & reporting

Editorial

- Reports function in peer review management software
- Create own or use out-of-box (submission counts, turnaround times, rejection rates, editor/reviewer stats, revision turnarounds)
- Keep notes on qualitative data throughout year



REPORTING TOOLKIT

Data collection

Online usage

- Content management system dashboards
- Publisher platform (e.g. Sharepoint) reports

Citations

- Web of Science/Scopus/Google Scholar
- Publish or Perish software

Social

- Twitter analytics
- Facebook Insights
- Moz Followerwonk or paid reports
- Manually track metrics offline

Data Analysis

- Excel
- SPSS
- R or Python

Data Visualization

- Excel's built-in charts (basic graphs, SD plots)
- RAWGraphs (fancier reporting)
- SankeyMatic (for alluvial flow charts only)

Data dissemination

- Use data to write an editorial
- Share reports on journal site or via epub platform with metrics

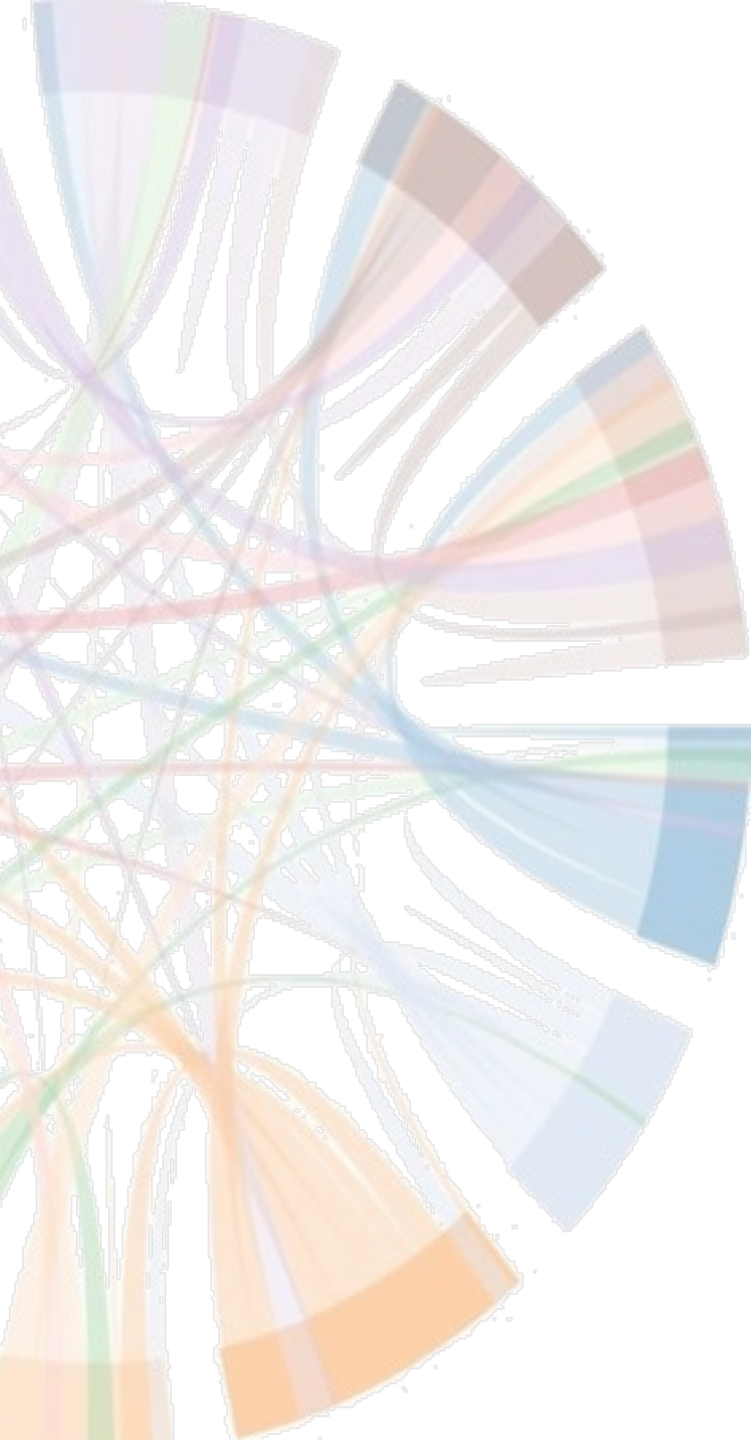


CONSENSUS-BASED EDITORIAL REPORTING DEVELOPMENT?

Feature	Typical reporting	Ideal reporting
Questions/ topics	Often broad in scope (or altogether undefined)	Focused, quantitative questions
Sources & search	Not usually specified, potentially biased	Comprehensive sources and explicit search strategy
Appraisal	Variable	Rigorous appraisal, capable of iteration
Synthesis	Often a qualitative summary	Quantitative summary
Inferences	Sometimes evidence-based (small samples)	Usually evidence-based and validated

Ideas adapted from study on syst revs:
Ann Int Med. 1997;126:376–380.





THANK YOU!

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