Alternatives to journal based metrics in research assessment
What’s wrong with journal metrics?

• How long have you got? 😊
What’s wrong with journal metrics?

- **Journal takes credit**
- **Journal charges more**
- **Wealthy researchers’ institutions pay more**
- **Unfunded researchers can’t afford to read/publish in journal**

- Funders & HEIs rate the journal highly cited.
- Journal gets highly cited.
- Researcher puts best work in journal.
- Researcher loves journal.
Figure 5 Average APC in USD by impact factor below illustrates the same data.

Heather Morrison et al, 2021,
https://sustainingknowledgecommons.org/2021/06/24/open-access-article-processing-charges-2011-2021/
What’s wrong with journal metrics?

1. Researcher loves journal
2. Researcher puts best work in journal
3. Journal gets highly cited
4. Funders & HEIs rate the journal

- Journal takes credit
- Journal charges more
- Wealthy researchers’ institutions pay more
- Unfunded researchers can’t afford to read/publish in journal
Alternatives to journal based metrics for assessing

- Journals?
- Research?
- Researchers?
Alternatives to journal metrics for assessing journals

1. Add in even more journal citation metrics?  
   – proposed by DORA
A number of themes run through these recommendations:

- the need to eliminate the use of journal-based metrics, such as Journal Impact Factors, in funding, appointment, and promotion considerations;
- the need to assess research on its own merits rather than on the basis of the journal in which the research is published; and
- the need to capitalize on the opportunities provided by online publication (such as relaxing unnecessary limits on the number of words, figures, and references in articles, and exploring new indicators of significance and impact).
Also DORA:

For publishers

6. Greatly reduce emphasis on the journal impact factor as a promotional tool, ideally by ceasing to promote the impact factor or by presenting the metric in the context of a variety of journal-based metrics (e.g., 5-year impact factor, EigenFactor [8], SCImago [9], h-index, editorial and publication times, etc.) that provide a richer view of journal performance.
Other journal metrics suggested by DORA

• 5 year impact factor
  – Average cites per paper over 5 years

• Eigenfactor
  – Based on a journal’s influence (citedness) within the Clarivate citation network. All journals’ Eigenfactors sum to 100.

• H-index
  – Number of articles (h) with at least h citations.

• SJR
  – ‘Prestige’ journal metric
  – More highly cited journals lend ‘prestige’ to the journals they cite
Alternatives to journal metrics for assessing journals

1. More journal citation metrics
   – proposed by DORA

2. Curated lists
   – Peer assessment of journal brand / reputation
Curated lists

Publication Forum

Publication Forum (in Finnish often referred to asregister) is a quality assessment of research output. To ensure the quality of various disciplines, the classification includes categories for journals, series, and publishers. The four-level classification rates the quality of the disciplines as follows:

1 = basic level
2 = leading level
3 = highest level
0 = publication channels that don’t meet the criteria for level 1.

Download current list:

This action requires login.

You can download the present list of the Norwegian Register for Scientific Journals, Series and Publishers here. It is divided in two parts: one for journals/series and one for publishers. Both parts can be opened by spreadsheets like Excel or equivalent tools. If problem, try importing the file using a separator. Saving in native spreadsheet format enables you to add formatting and data filter, freeze top row and adjust column widths as desired.

Part 1: Scientific Journals, Series (~1 minute preparation, ~7 MB) Larger image of sample columns

Part 2: Scientific Publishers (~5 seconds preparation, ~0.5 MB)
Alternatives to journal metrics for assessing journals

1. More journal citation metrics
   – proposed by DORA

2. Curated lists
   – Peer assessment of journal brand / reputation

3. Alternative metrics
   – Assess other dimensions of journal ‘quality’
### TOP Standards

- Data Citation
- Data Transparency
- Analysis Code Transparency
- Materials Transparency
- Design & Analysis Reporting Guidelines
- Study Preregistration
- Analysis Plan Preregistration
- Replication
- Registered Reports & Publication Bias
- Open Science Badges

### Search Journal Titles

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<tr>
<th>Journal</th>
<th>Total</th>
<th>Data Citation</th>
<th>Data Transparency</th>
<th>Analysis Code Transparency</th>
<th>Materials Transparency</th>
<th>Design &amp; Analysis Reporting Guidelines</th>
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<tr>
<td>Meta-Psychology LNU Open</td>
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<td>3</td>
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<tr>
<td>European Journal of Personality Sage</td>
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<td>2</td>
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<tr>
<td>Cortex Elsevier</td>
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<tr>
<td>Comprehensive Results in Psychology</td>
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<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>
Journal Score Cards

The life cycle of Journal Score Cards

Journal Score Card

By completing a Journal Score Card in QOAM authors may review the quality of the services of the journal they published in. The Card has four bullets that can be rated from 1 to 5:

Scores

- The editor of the journal is responsive.
- The peer review of the journal has added value.
- I would recommend scholars to submit their work to this journal.
- I would deem this journal good value for money

Per bullet, the rating options are:

1. Absolutely not (1 pt)  
2. Poor (2 pt)  
3. Neutral (3 pt)  
4. Good (4 pt)  
5. Excellent (5 pt)

The average of the ratings is called the Score of the journal.

The Score Card has a free text box for additional comments, with a placeholder question:

Why would/wouldn’t you recommend this journal?

For transparency reasons, editors are requested to tick the following box.

I am an editor of this journal
## 597 reviews for 'Computer and information sciences'

<table>
<thead>
<tr>
<th>Journal title</th>
<th>1st rev. rnd</th>
<th>Tot. handling</th>
<th>Im. rejection</th>
<th>Number</th>
<th>Quality</th>
<th>Difficulty</th>
<th>Review rounds</th>
<th>Overall rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACM Transactions on Embedded Computing Systems</td>
<td>6.0 months</td>
<td>n/a</td>
<td>3.0</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
<td>2.0</td>
<td>5.0 (excellent)</td>
</tr>
<tr>
<td>International Journal of Advanced Robotic Systems</td>
<td>5.0 months</td>
<td>n/a</td>
<td>2.0</td>
<td>5.0</td>
<td>5.0</td>
<td>2.0</td>
<td>2.0</td>
<td>5.0 (excellent)</td>
</tr>
<tr>
<td>Computational Linguistics</td>
<td>3.0 months</td>
<td>n/a</td>
<td>3.0</td>
<td>5.0</td>
<td>4.0</td>
<td>4.0</td>
<td>2.0</td>
<td>4.0 (very good)</td>
</tr>
</tbody>
</table>

- |
Platform for Responsible Editorial Policies (PREP)
If you want to ditch journal metrics, you’ll need to ditch journals…
Publication types

- Research Problem
- Rationale/Hypothesis
- Method
- Results
- Analysis
- Interpretation
- Real World Application

Research Problem
- When presenting people with their personal r...
  - A Freeman
  - 19 July 2022

Rationale/Hypothesis
- Investigating the effects of the format that ...
  - A Freeman
  - 19 July 2022

Method
- Testing the effects of different numerical fo...
  - A Freeman
  - 21 July 2022

Results
- Results of testing the effects of different n...
  - A Freeman
  - 21 July 2022

Analysis
- Analysis of the effects of different numerical ...
  - J Kerr
  - 21 July 2022

Interpretation
- Interpretation of an analysis of the effects ...
  - A Freeman
  - 22 July 2022

Real World Application
- The benefits of F-effects
  - T Faisl
  - 13 September 2022
The future of scholarly communication

*Scenario 3: Death of the journal*

- Preprint servers and repositories
- Peer review platforms

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Waltman (2022)
https://zenodo.org/record/7076317#.Y0lyatfMl2w
Preprints + (open) peer review

Part 1: Preprinting - where?
Peer review platforms

Bosman, Kramer, Sondervan, & Waltman
https://zenodo.org/record/7040997#.Y0WDVNfMI2x
Alternatives to journal metrics for assessing research

- Peer review
- Output level metrics
  - Citations
  - Altmetrics

The effect of large-scale anti-contagion policies on the COVID-19 pandemic
Overview of attention for article published in Nature, June 2020

Loughborough University
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How will you judge me if not by impact factor?

Stop saying that publication metrics don’t matter, and tell early-career researchers what does, says John Tregoning.

Rumours among junior faculty members are that reports of the death of the impact factor are greatly exaggerated. In a round of funding earlier this year, my research output was described as being in “high-impact journals” by one reviewer and in “middle-tier journals” by another, with knock-on effects on their grant scores. It is not unheard of for people to be told that the only articles that count are the ones in journals with an impact factor that is over an arbitrary value. Or, worse, that publishing in low-tier journals pollutes their CVs.

That’s true even at institutions that have signed on to the San Francisco Declaration on Research Assessment (DORA), which advocates replacing journal impact factors (JIFs) with something better and fairer.
Alternatives to journal metrics for assessing researchers

NWO introduces narrative CV format in the 2020 Vici round

12 December 2019

UKRI introduces new Resume for Research and Innovation

Swiss funder unveils new CV format to make grant evaluation fairer

The Swiss National Science Foundation’s ‘narrative’ template seeks evidence of applicants’ wider contributions to science.
The INORMS SCOPE framework
To conclude

• To eliminate journal metrics, first eliminate the journal
• To design alternative assessments, adopt a value-led evaluation framework
The research evaluation food chain

- Global rankings
- Governments
- Funders
- Universities
- Researchers

Data vendors
Context: Why and what are you measuring?

<table>
<thead>
<tr>
<th></th>
<th>Country</th>
<th>HEI</th>
<th>Group</th>
<th>Individual</th>
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<tbody>
<tr>
<td>Analysis</td>
<td>To understand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocacy</td>
<td>To show off</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountability</td>
<td>To monitor</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Acclaim</td>
<td>To benchmark</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Adaptation</td>
<td>To incentivise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allocation</td>
<td>To reward</td>
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</tr>
</tbody>
</table>

- Low impact
- Medium impact
- High impact

Loughborough University

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SHERPA RoMEO & Journal Checker Tool

Scientometrics

Publication Information
- Title: Scientometrics
- ISSN: 0138-9130
- URL: https://www.springer.com/journal/00332
- Publishers: Springer (Primary Co-Publisher), Akademie Kiado (Co-Publisher)
- Notes: Formerly published by Kluwer

Publisher Policy
Open Access pathways permitted by this journal's policy are listed in a detailed view.

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- Author's Homepage

Accepted Version (pathway b)
- 12m Institutional Repository, Funder Designated Location

Submitted Version
- Preprint Repository, Author's Homepage

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- By funder name
- By ROR or name

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