scholcommlab

Metrics Literacy

Educating Researchers and Research Support Staff on Scholarly Metrics

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SFU FACULTY OF COMMUNICATION, ART & TECHNOLOGY | PUBLISHING PROGRAM

uOttawa
Faculté des arts
École des sciences de l'information
Faculty of Arts
School of Information Studies

PKP | PUBLIC KNOWLEDGE PROJECT

CIRST Centre interuniversitaire de recherche sur la science et la technologie

THAT MOMENT WHEN THE COFFEE
Metrics Literacy
on a coffein high 💪💃🔥🤵💯☕
FINALLY KICKS IN

Bibliometric community

Field-normalized citation rates
Percentile ranks
Collaboration
…
Benchmarks
Social network analysis

Academia

Impact factor
h-index

Bibliometric community

Field-normalized citation rates
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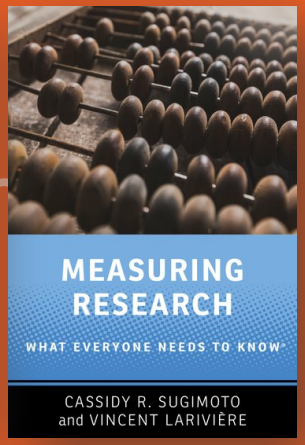
Metrics **experts**

Commun r

COMMENT

The Leiden Manifesto for research metrics

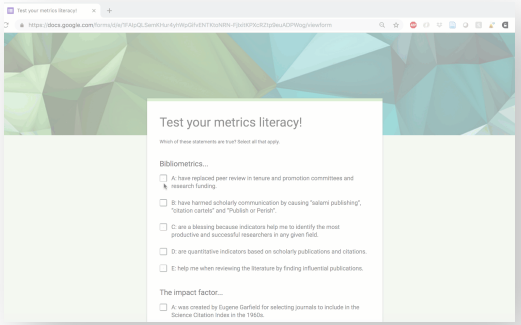
Use these ten principles to guide research evaluation, urge **Diana Hicks, Paul Wouters** and colleagues.



Regular academics

Test your metrics literacy*†§

bit.ly/MetricsLiteracyQuiz



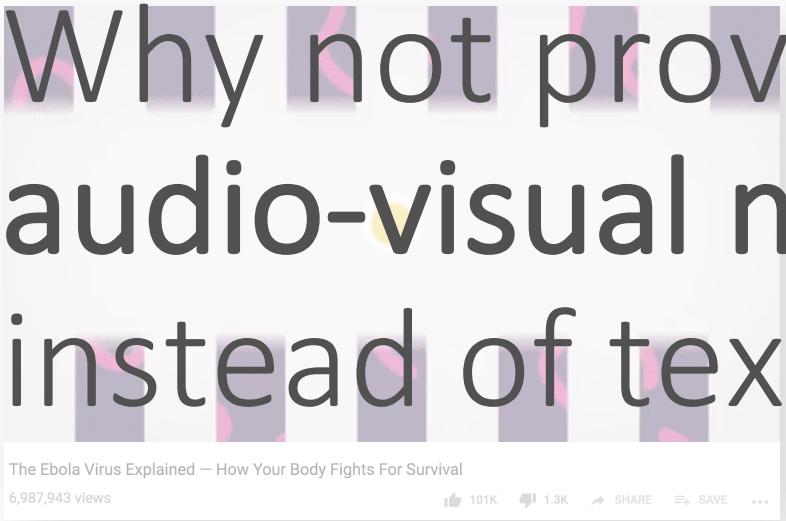
* Participate at your own risk. IRB approval has not been obtained, as IRB approval has never been asked for.

† Yes, I know that this is a non-generalizable convenience sample. This is not research, this is just my way of trying to be as fun and engaging as a last day, last session, last talk can be.

§ I came up with this Wednesday night, when I should have actually been preparing my online classes. I'm slightly worried how this will affect my teaching evaluations. At least I did learn how to make gifs in Camtasia. Hey, why are you still reading this? You are supposed to take the quiz!

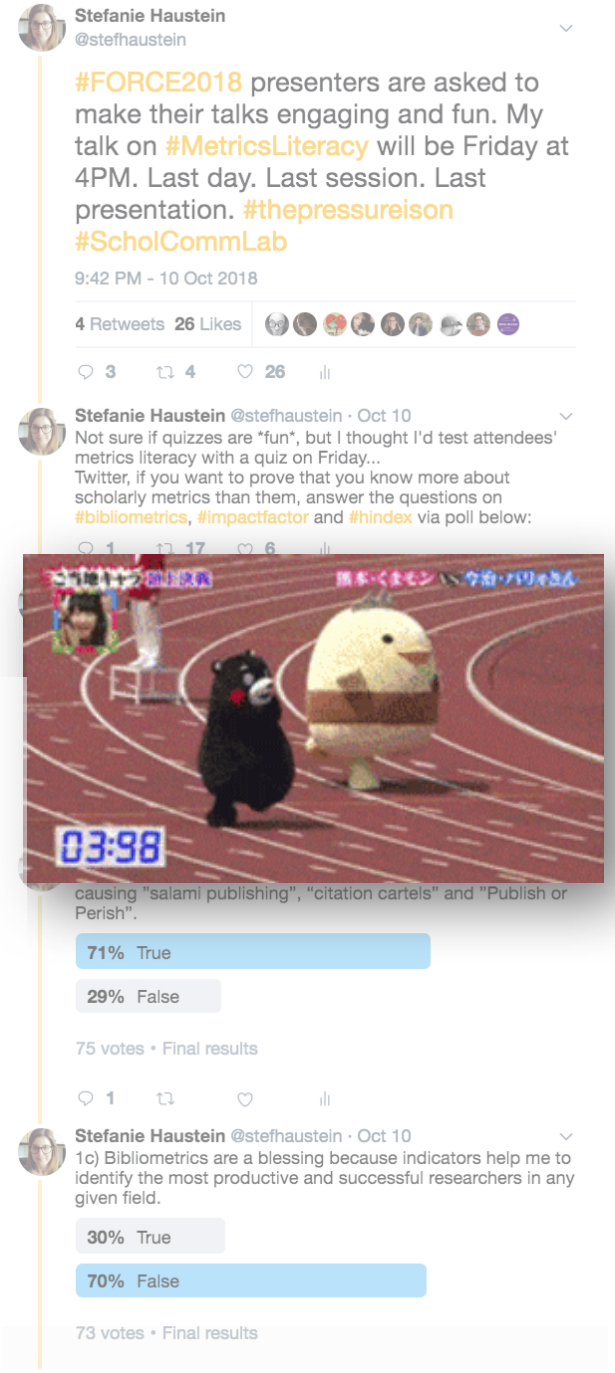
Scholars are overwhelmed by **too much to read**.

Why not provide **audio-visual material** instead of text?



The race is on!

Is Twitter more metrics literate than FORCE2018 on a Friday afternoon?



Let’s see how you did

For each 👍 add +1

👎 -1

Bibliometrics...

👎 ☐ A: have replaced peer review in tenure and promotion committees and research funding.

👍 ☑ B: have harmed scholarly communication by causing ”salami publishing”, “citation cartels” and ”Publish or Perish”.

👎 ☐ C: are a blessing because indicators help me to identify the most productive and successful researchers in any given field.

👍 ☑ D: are quantitative indicators based on scholarly publications and citations.

👍 ☑ E: help me when reviewing the literature by finding influential publications.

The impact factor...

- [x] A: was created by Eugene Garfield for selecting journals to include in the Science Citation Index in the 1960s.
- [ ] B: is size dependent (i.e., affected by a journal's number of publications).
- [ ] C: can be used to estimate a researcher's impact by adding up the impact factors of the journals they published in.
- [x] D: is mentioned by one fifth of Canadian and US universities in review, tenure and promotion documents.
- [x] E: has affected scholarly communication by becoming a synonym for journal prestige.
- [ ] F: is a field-normalized two-year citation rate to compare journals from different disciplines.

The h-index...

- [x] A: was invented by a physicist to combine publication and citation rates.
- [ ] B: is a useful indicator to compare the overall impact of researchers.
- [ ] C: can only be applied to scientific authors.
- [x] D: is size dependent (i.e., affected by number of publications).
- [x] E: has been shown to be inconsistent and not an appropriate indicator of scientific impact.
- [x] F: is affected by a researcher's age.

+10 Congratulations, you're a metrics nerd!

Wanna help teach others?

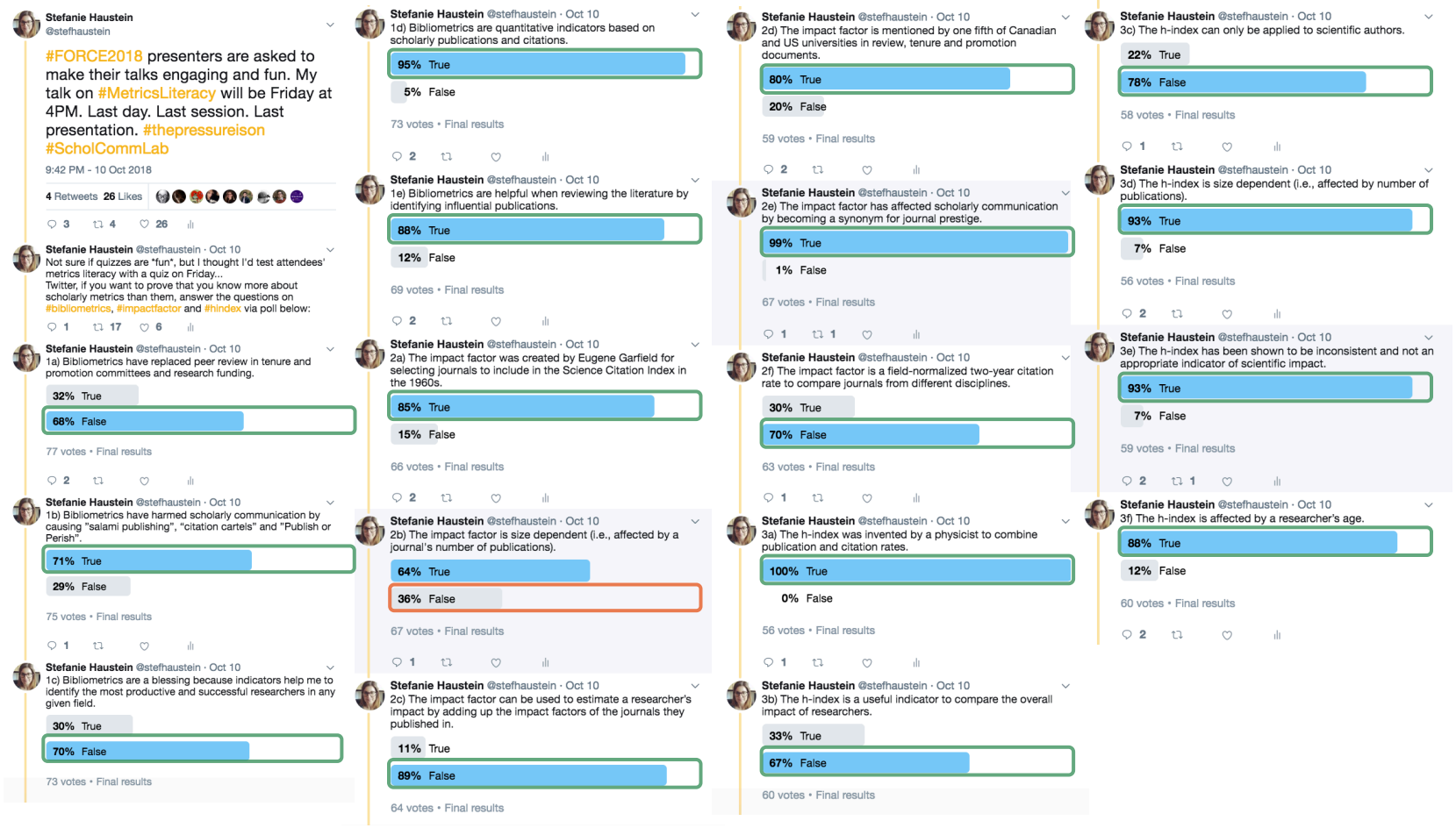
0 Your metrics literacy skills are about as high as that of a monkey. Too bad they're not as cute: 🐒

-7 Oh boy…

You better hope that I'll get some funding for this!

Metrics Literacy Quiz

Twitter poll results



Correct answers are encircled.

Metrics Literacy
The need.

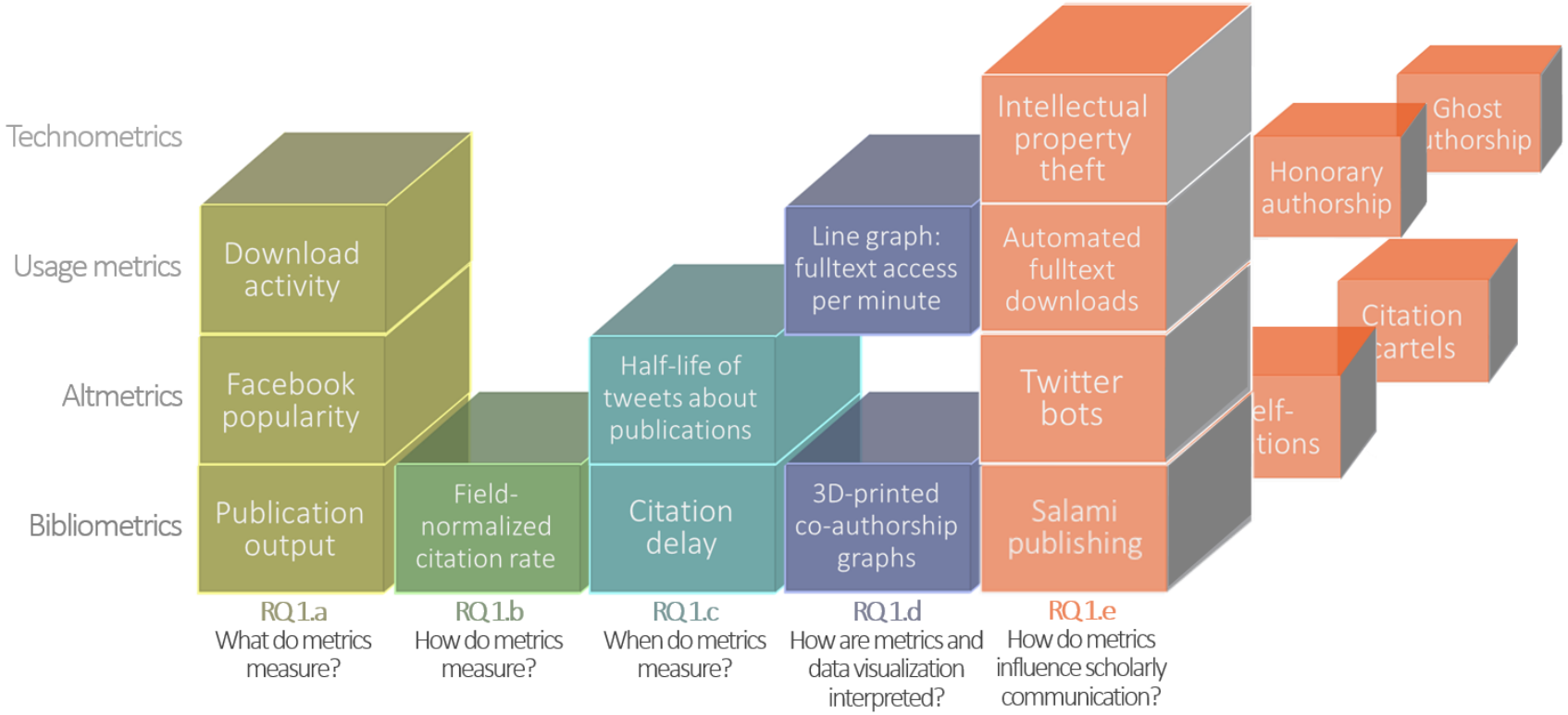
By dividing the number of citations by the number of publications, the impact factor is size independent.

The h-index has been shown to be inconsistent[1].

[1] Waltman & van Eck (2011): The inconsistency of the h-index. *Journal of the American Society for Information Science*, *63*(2), 406-415. doi: 10.1002/asi.21678

The impact factor does not normalize for field-specific differences and cannot be compared across disciplines.

Metrics Literacy
The idea.

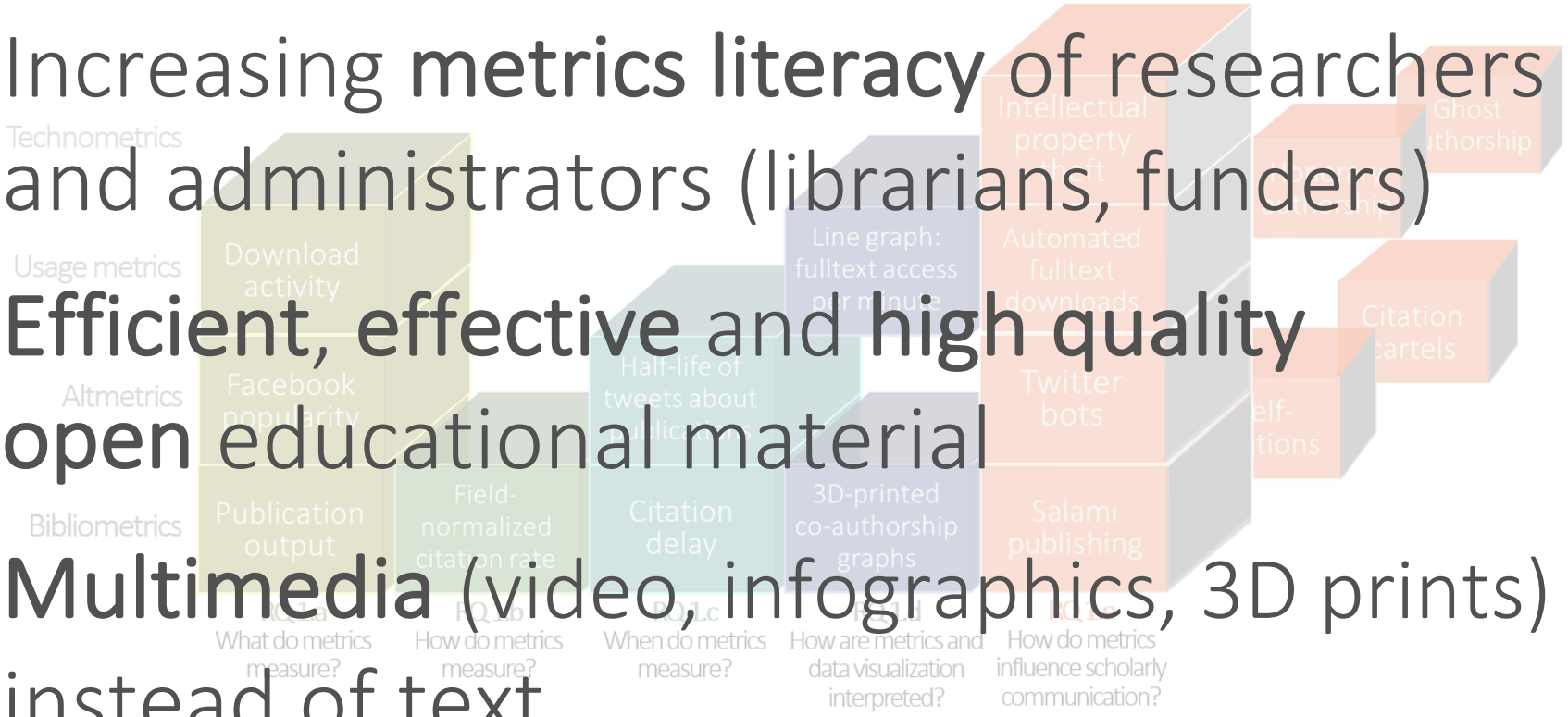


Metrics Literacy
The idea.

Increasing **metrics literacy** of researchers and administrators (librarians, funders)

Efficient, **effective** and **high quality** **open** educational material

Multimedia (video, infographics, 3D prints) instead of text



Metrics Literacy
Like the idea?

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Merci. Danke.

Thanks for still being here on a Friday afternoon.

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