Impact cannot be measured and other sad half-truths about impact measurement

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Impact measurement: big quant vs. big qual

- The community is hyperfocused on quant methods
- Qual approaches
 - Donovan (2007), Gaunand et al. (2017), among others
 - See also ASIRPA and Overton.io
- This talk focuses on fairness issues in quant methods

Sad half-truths about impact measurement

- Impact cannot be measured
- Not everything that can be counted counts
- Not everything that counts can be counted
- Metrics will never be alt- enough
- Metrics are bound to be abused



Recipe for disaster: the quantitative fallacy

- 1. Measure whatever can be easily measured
- 2. Disregard whatever can't be easily measured
- 3. Presume that what can't be easily measured really isn't important
- 4. Presume that what can't be easily measured really doesn't exist

Attention vs. impact

















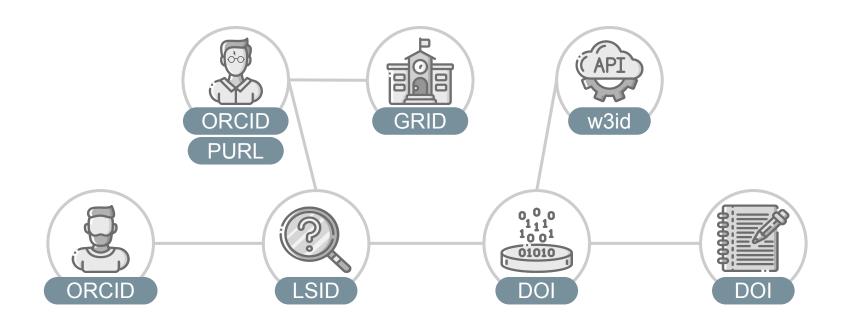
Attention vs. impact

- Citations, mentions, and altmetrics are **proxies** for impact
- Citations, mentions, and altmetrics measure attention
- Attention correlates with impact
 - So do influence and privilege
- See also Sugimoto's "Attention is not impact" (2015)

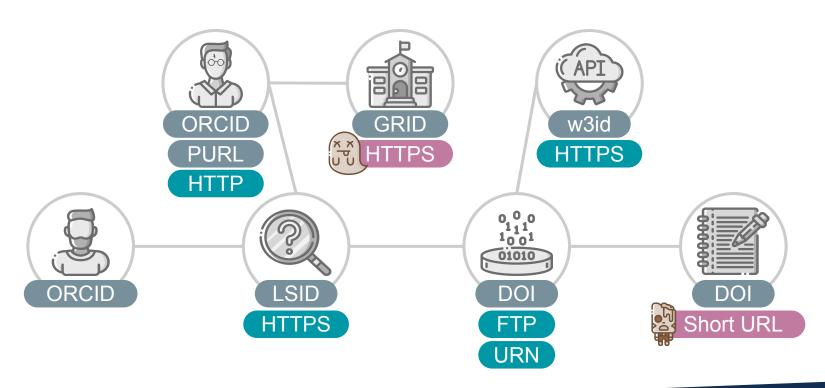
Cobaltmetrics

- "New kid on the block" of altmetrics
 - We try to make altmetrics genuinely alternative
 - We do not define what is citable
- Two complementary services:
 - Citation index: doi.org/10.25495/912q-yc02
 - URI transmutation API: doi.org/10.25495/qq9m-c669

Cobaltmetrics: URI transmutation

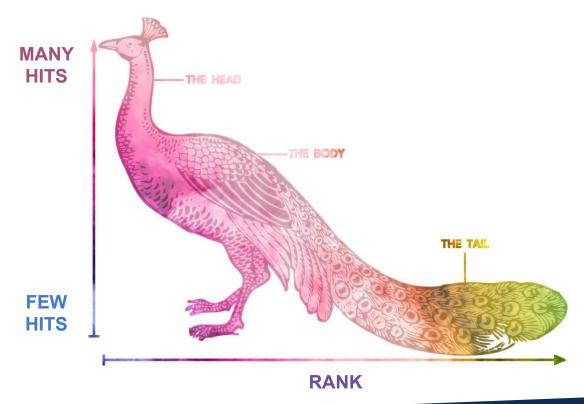


Cobaltmetrics: URI transmutation



http://tiny.cc/gmlkuz

Cobaltmetrics: observing the long tail



Structural zeros vs. sampling zeros

Mohri & Roark (2015), among others:

- Sampling zeros: unobserved due to the sampling method
 - Example: resources without PIDs in PID-centric systems
- Structural zeros: unobserved due to their being inexistent
 - Example: my monograph on birds as surveillance drones

Cobaltmetrics: pay off your fairness debt

- Focus on the alt- part of altmetrics
 - All types of web resources, from free and public sources
 - 300+ languages, 60+ types of (P)IDs
- Mostly limited by storage costs
 - We currently run Cobaltmetrics at a loss...
- Proof that other providers could be more inclusive

Where do we go from here?

- For the community
 - Adopt design principles that are verifiable (POSI/FAIR)
 - Improve funding/resourcing for open/fair infrastructure
- For Cobaltmetrics
 - We might focus on URI transmutation

Honesty is the best policy



- Disclose the limitations of your methods
 - Example: NISO self-reporting table for altmetrics
- Provide audit trails of how/when data was collected
 - Audit trails must be human- and machine-readable
- Ensure availability of audit trails to the end users
 - Inspiration: "viral" licenses and share-alike clauses?



Recommended readings

