## Broadening merits: Recognizing Open Science contributions in research

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### Structure

#### Background

- 1. Open science
- 2. The evaluation and assessment of research

#### **Possible developments**

- 1. Metrics on openness
- 2. Reformed evaluation / narrative CVs
- 3. Open assessment systems

#### **Concluding reflections**

## 1. Open science

- A longstanding idea of science being accessible to all
- The Internet and the World Wide Web
- The 'serials crisis' and the early open access movement
- A general call for transparency and evaluation
- "(Open)Data as the new oil" (Nolin 2020). Competitiveness in the global economy

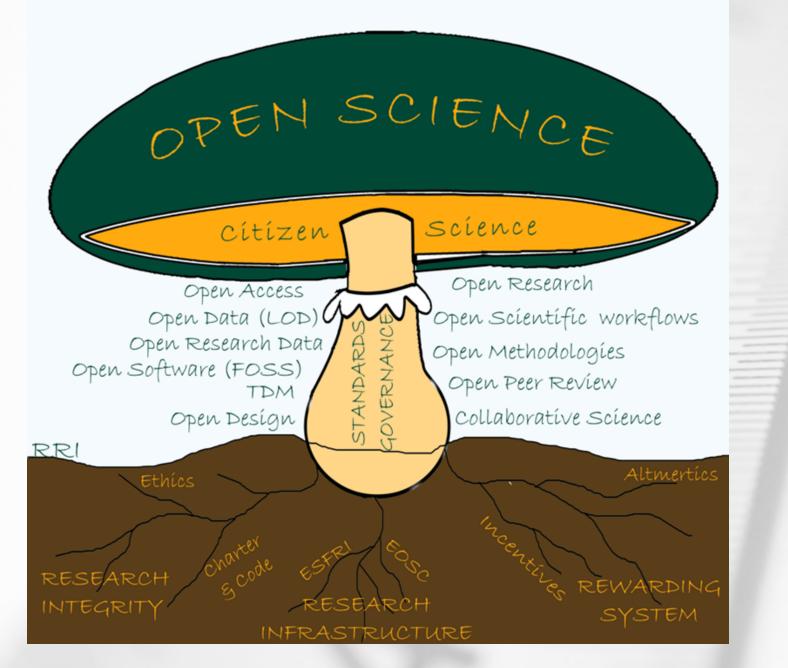


Image from: <u>https://blogs.lse.ac.uk/impactofsocialsciences/2023/08/14/the-benefits-of-open-science-are-not-inevitable-monitoring-its-development-should-be-value-led/</u> Source: <u>OpenAire</u> (based on <u>Eva Méndez</u>).

## Critical perspectives on Open science

- Open science (research) being dominated by particular disciplinary perspectives
- Open is not free (Lund & Zukerfeld 2020)
- "Platform capitalism meets open science; romance ensues" (Mirowski 2018)
- "Open Access was not a rebel, not an activist—it sounded like everyone else." (Haider 2015)
- Open science as yet another administrative burden

## 2. Evaluation and metrics

Let's change what we value in research.



2012





#### The Leiden Manifesto for research metrics

2015



2022

2019

## The evaluation society

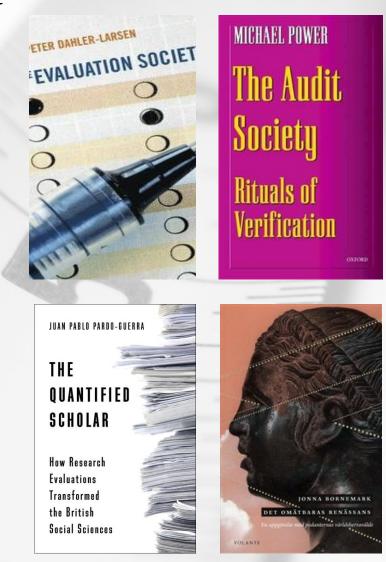
The audit society (Powers, 1997), Audit cultures (Strathern 2000),

- demands for accountability
- handling risk (Cf. Ulrich Beck)

The evaluation society (Dahler-Larsen, 2012) - 'Evaluation as a ritual' The Quantified scholar (Pardo-Guerra 2022)

"Det omätbaras renässans" (Bornemark, 2018) - 'förpappring' (Hofvendahl, 2006)

New Public management / Neoliberalism



Are evaluative bibliometrics neoliberal? A historical and theoretical problematization (Hammarfelt & Hallonsten (2023)

## The bibliometric landscape

• Macro: university rankings, international comparisons

• Meso: allocating resources between and within institutions

• Micro: individual use, for promotion or hiring

#### Possible effects of metric evaluation



### Strategic behaviour and goal displacement

Focusing on scoring well, rather than doing good and relevant research

## Bias against interdisciplinarity (for example through disciplinary journal rankings)

**Task reduction** Activities that does not count are demoted or abandoned (teaching, non-English publications, outreach)

#### Epistemological consequences

focus on research that quickly can be published in high impact journals resulting in more risky and lengthy projects being avoided

de Rijcke et al. (2016)

#### Effects in the humanities and social sciences?

Greater awareness (and worry) about publication practices. Expressed through workshops and courses about 'publication strategies'. Possible tensions between younger researchers directed towards a international audience and more senior scholars

Increase in English language articles? Increase in the number of publications marked as 'peer reviewed' Conflicts in fields (political science, sociology and partly history) where different traditions in publishing co-exists

(Hammarfelt & de Rijcke 2015; Hammarfelt & Haddow 2018; Nästesjö 2024)

### Disciplinary differences in assessment

	Biomedicine	Economics	History
	~		
"Indicators" (judgment devices)	Reputation of Journal Impact factor H-index Citations Prices	Reputation of publisher/journal Journal ranking Citations H-index Prizes	Reputation of journal/publisher Prizes Reviews
Temporal orientation	Present	Future	Past
Boundary keeping	Limited	Method-based	Training important

# Is "openness" assessed in evaluating researchers?

#### Simple answer: No

 Helgesson, Nelhans & Joelsson (2020) studied 17 guidelines, 112 referee reports, and found <u>0</u> mentions of "open access" or open research practices. (They studied the assessment of "docents" at six universities in Sweden)

# What about societal interaction? (samverkan)

- Contrary to "open research" interaction with society is mentioned in assessments. It has a minor role, but a few referees (sakkunniga) highlight it as important).
- Disciplinary differences: in economics societal interaction often takes the form of "expertise" (committees, writing reports etc.). In history the role of "public educator" is more common (Hammarfelt 2021)
- Referees that themselves are engaged in societal outreach will emphasis it when evaluation others. Maybe a similar pattern is likely regarding Open Science?

## Possible developments 1.

- Openness as a metric
- The addition of indicators, and evaluation systems, measuring openness
- Likely to result in a focus on particular "measurable" parts of open science

Offentlig åtkomst	<b>VISA ALLA</b>
0 artiklar	17 artiklar
inte tillgänglig	tillgänglig
Enligt krav från finansiärer	

Google scholar feature showing nr of OA articles

🛟 TOP FACTOR	ABOUT	ALL JOURNALS SUMMARY TABLE
All Journals	Search journals by title	Q
TOP Standard	JOURNAL	TOTAL TOP FACTOR
Total TOP Factor     Data Citation	1 Meta-Psychology	27
O Data Transparency	2 Advances in Methods and Practices in Psychological Science	25
Analysis Code Transparency     Materials Transparency	3 Peer Community In Registered Reports	25
O Design & Analysis Reporting Guidelines		
Study Preregistration     Analysis Plan Preregistration	4 Global Environmental Psychology	24
Replication     Registered Reports & Publication Bias	5 Personality Science	24
O Open Science Badges	6 Comprehensive Results in Social Psychology	23

#### https://topfactor.org/

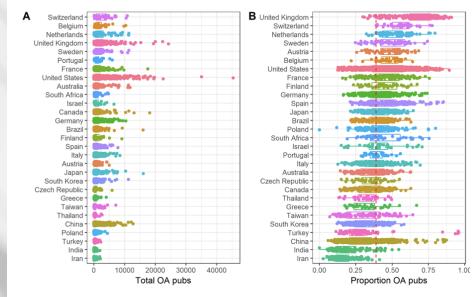
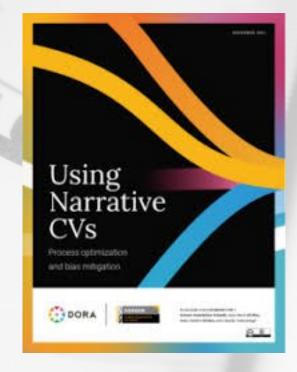


Figure 3. Distribution of universities based on their A) total number and B) proportion of OA publications for countries with > 5 universities included. Countries ordered by median proportion of OA publications. Red dashed line shows world median.

Robinson-Garcia, N., Costas, R., & van Leeuwen, T. N. (2019). Indicators of open access for universities. *arXiv preprint arXiv:1906.03840*.

## Possible developments 2.

- Opening up assessment
- Reform in how researchers are assessed
- Less reliance on indicators, and use of alternative methods like "narrative CVs"
- Likely to gain traction in a few elite institutions
- Risks of relying only on judgment? Bias?



## Possible developments 3.

- Open assessment procedures and indicators
- Open data sources used in evaluation (OpenAlex)
- Greater transparency in peer review also when assessing research grants / academic positions
- Could improve quality of assessment, but perhaps too demanding in terms of resources?

M	EWTS L	eiden Ra	nking	Ope	en Ed	ition	
Home	Ranking	Information 👻	Resources	s Sei	rvices	Contact 👻	
CW.	TS Leider	n Ranking C	)pen Ec	litior	n 2024		Start tour
	List vie	w Ę	Cha	art viev	v	Мар	view
Time	e period, field, an	d region/country		India	ators		
Time į	period:	2019–2022	~	Туре	of indicators:	Scientific impact	<ul><li>?</li></ul>
Field:		All sciences	~	Indica	itors:	P, P(top 10%), PP(top	10%) ~ ?
Regio	n/country:	World	~	Order	· by:	Р	~
Min. p	ublication output:	100	~	🗹 Ca	lculate impact	indicators using fractional co	unting ?
		University		Р	P(top 10%)	PP(top 10%)	
1	Harvard Univ			39574	8066	20.4%	
2	Shanghai Jiao Tong	Univ	*	34658	4602	13.3%	
3	Zhejiang Univ		10	31523	4548	14.4%	
4	Sichuan Univ		*	29464	3609	12.3%	
5	Cent S Univ			27422	3699	13.5%	
6	Univ Toronto			27256	3712	13.6%	
7	Sun Yat-sen Univ			26655	3440	12.9%	
8	Huazhong Univ Sci Peking Univ	& Technol		25255 25080	3863 3370	15.3%	

Skärmavbild

Tsinghua Uni

## Concluding remarks

- Support open science, but keep a critical distance
- Keep "open science" flexible, non-standardized, (vagueness as a strength, openness as a process)
- A thoroughly open science system demands reform in evaluation, funding etc.
- A risk that "openness" in research becomes a luxury good, which benefits the already well endowed

### Thank you!

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