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# Open Access en la encrucijada? OA: Myths and misconceptions

*Valencia, 10 November 2022*

Juan Gorraiz

@

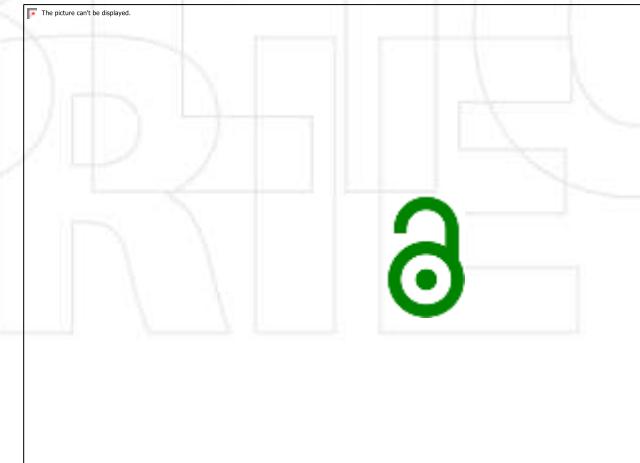
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## Agenda

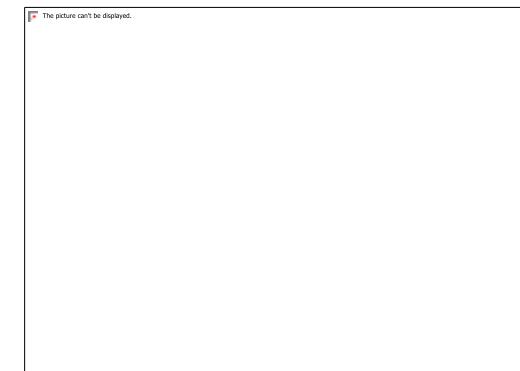
- Es OA realmente un cambio de paradigma?
- Se está convirtiendo en una religión?
- Aumenta OA la visibilidad?
- Aumenta OA el impacto?
- OA & altmetrics
- OA Quo vadis?
- Cuáles son los efectos de OA?





## Es Open Access realmente un cambio de paradigma?

- **Paradigma** = Realizaciones científicas universalmente reconocidas que durante cierto tiempo proporcionan modelos de problemas y soluciones a la comunidad científica (Thomas Kuhn, 1973)
  - **Realización:**  
Forma acertada de resolver problemas que sirven luego como modelos a la comunidad científica
  - **Conjunto de valores compartidos:**  
Métodos, normas y generalizaciones compartidas por los miembros de la comunidad científica
- **Un cambio de paradigma para qué?**  
Para la puesta a disposición pública del conocimiento científico? (Rainer Kuhlen, Konstanz)
- **Origen del Paradigma**
- **Revolución científica**



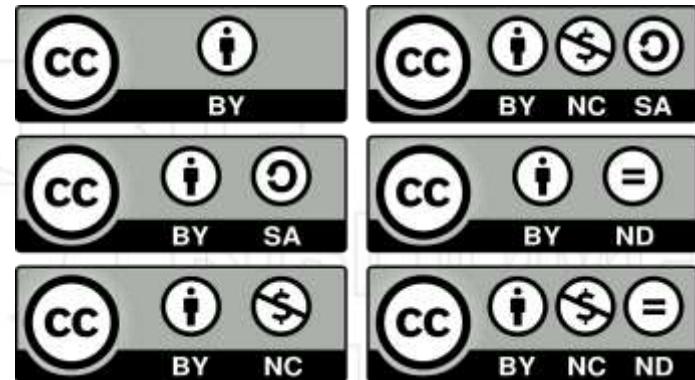


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## Se está convirtiendo Open Access en una “religión”?

- Open Access, burocratismo y dogmatismo?
- La guerra de las definiciones
- La guerra de las licencias
- El laberinto de los colores
- Insuficiente consideración de las diferentes culturas de publicación en cada disciplina



<https://libguides.depaul.edu/c.php?g=844896&p=6039089>





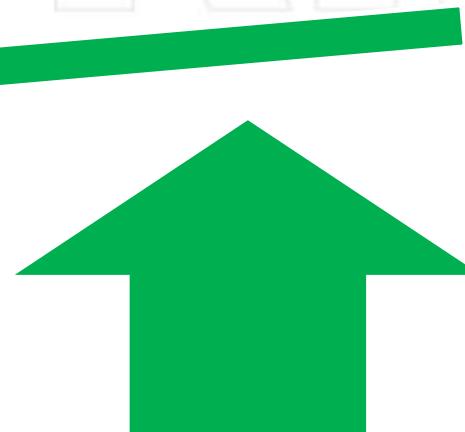
## Myths and misconceptions



OA = CC BY license



Rejected!  
CC-BY licensed articles  
are prone to be  
manipulated, twisted  
and misused





## Myths and misconceptions II

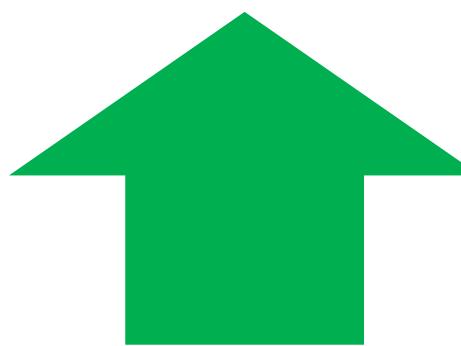


OA: The “author pays” model works well in many disciplines (hard sciences?)



Not true for authors in the humanities with different expectations.

The very thought of paying for publication is hateful.





## Myths and misconceptions III



OA: The “author pays” model works well in many disciplines (hard sciences)



Not true for authors in technical & engineering disciplines.  
Patents?



## Aumenta OA la visibilidad?



Open Access increases  
the visibility of the  
publication



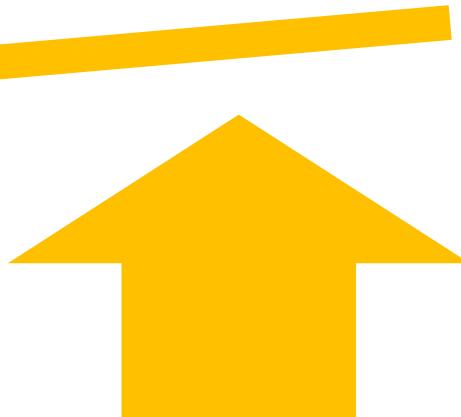
Not true in the “publish or perish” dilemma:  
the enormous increase of  
accessible documents hampers  
the identification and selection  
of the most relevant ones



## Myths and misconceptions



Visibility can be assessed based on the reputation of journals or book publishers



Nowadays visibility is based above all on the extent of web promotion that is carried out



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## Aumenta OA el impacto?

- El aumento del impacto es uno de los beneficios de Open Access?
- Desde el principio se ha creado como una obsesión por demostrarlo

OA

# Aumenta OA el impacto?

Research Area	Web of Science Documents	Times Cited	Rank	% Documents Cited	Category Normalized Citation Impact	% All Open Access Documents	% Documents in Top 10%
Baseline for All Items	10,951,950	307,574,434	n/a	96.85%	1.26	100%	12.84%
1 Clinical & Life Sciences	5,178,368	110,660,113	1	87.49%	1.26	100%	12.25%
2 Chemistry	896,290	21,826,286	2	90.37%	1.13	100%	15.79%
3 Agriculture, Environment & Ecology	1,087,461	20,337,683	3	90%	1.16	100%	11.30%
5 Physics	823,463	18,125,301	4	85.72%	1.33	100%	14.22%
4 Electrical Engineering, Electronics & Computer Science	825,743	12,243,181	5	81.07%	1.43	100%	12.72%
6 Social Sciences	896,587	11,316,399	6	80.45%	1.32	100%	13.11%
8 Earth Sciences	343,336	6,652,466	7	85.71%	1.24	100%	12.53%
7 Engineering & Materials Science	436,349	5,605,177	8	84.39%	1.12	100%	10.54%
9 Mathematics	327,609	3,787,136	9	79.94%	1.09	100%	10.37%
10 Arts & Humanities	116,048	432,401	10	55.29%	1.36	100%	14.24%

NON-OA

Research Area	Web of Science Documents	Times Cited	Rank	% Documents Cited	Category Normalized Citation Impact	% All Open Access Documents	% Documents in Top 10%
Baseline for All Items	17,409,049	337,550,116	n/a	79.1%	0.84	0%	7.65%
1 Clinical & Life Sciences	5,226,531	64,390,343	1	50.1%	0.72	0%	6.64%
2 Chemistry	2,593,128	56,471,271	2	89.7%	0.96	0%	5.4%
3 Agriculture, Environment & Ecology	1,670,229	20,840,736	3	87.54%	0.0	0%	8.17%
4 Electrical Engineering, Electronics & Computer Science	2,314,710	21,775,634	4	70.79%	0.25	0%	8.27%
6 Social Sciences	2,097,581	20,747,780	5	72.49%	0.36	0%	7.25%
7 Engineering & Materials Science	3,273,429	18,210,348	6	80.77%	0.99	0%	9.28%
5 Physics	1,052,321	8,792,905	7	76.59%	0.74	0%	6.02%
8 Earth Sciences	606,383	8,581,009	8	83.75%	0.36	0%	7.07%
9 Mathematics	340,261	2,320,033	9	71.37%	0.31	0%	8.07%
10 Arts & Humanities	444,385	1,174,294	10	55.38%	0.03	0%	6.37%

# Aumenta OA el impacto?

Research Area	Web of Science Documents	Times Cited	Rank	% Documents Cited	Category Normalized Citation Impact	% Documents in Top 10%	% All Open Access Documents
Baseline for All Items	1,150,888	25,572,840	n/a	89.75%	1.49	10%	100%
1 Clinical & Life Sciences	510,585	11,606,380	1	91.60%	1.56	17.42%	100%
2 Chemistry	113,189	3,454,887	2	83.54%	1.21	13.25%	100%
3 Agriculture, Environment & Ecology	133,246	3,873,259	3	83.04%	1.3	16.17%	100%
4 Physics	94,168	2,395,490	4	82.05%	1.55	17.12%	100%
5 Social Sciences	104,667	1,279,298	5	85.88%	1.1	15.44%	100%
6 Earth Sciences	58,197	1,872,282	6	82.85%	1.44	15.39%	100%
7 Electrical Engineering, Electronics & Computer Science	60,543	1,062,426	7	85.86%	1.34	13.89%	100%
8 Engineering & Materials Science	17,917	541,372	8	85.21%	1.18	11.25%	100%
9 Mathematics	32,544	319,225	9	81.47%	1.24	11.23%	100%
10 Arts & Humanities	13,823	46,831	10	87.87%	1.9	10.89%	100%

## GOLD Hybrid

Research Area	Web of Science Documents	Times Cited	Rank	% Documents Cited	Category Normalized Citation Impact	% Documents in Top 10%	% All Open Access Documents
Baseline for All Items	10,989,733	293,192,379	n/a	86.23%	1.37	12.71%	100%
1 Clinical & Life Sciences	5,069,323	108,000,128	1	87.59%	1.29	13.27%	100%
2 Chemistry	853,258	20,834,374	2	80.41%	1.12	15.72%	100%
3 Agriculture, Environment & Ecology	1,029,849	25,613,009	3	80.96%	1.18	12.38%	100%
4 Physics	800,648	15,811,322	4	88.78%	1.34	14.28%	100%
5 Electrical Engineering, Electronics & Computer Science	795,768	11,797,588	5	85.94%	1.44	12.78%	100%
6 Social Sciences	557,854	10,080,228	6	80.73%	1.33	13.2%	100%
7 Earth Sciences	397,673	6,339,897	7	85.56%	1.24	12.52%	100%
8 Engineering & Materials Science	418,153	4,787,852	8	84.49%	1.12	10.25%	100%
9 Mathematics	318,136	3,721,115	9	79.88%	1.1	10.34%	100%
10 Arts & Humanities	110,388	420,907	10	88.76%	1.54	14.43%	100%

## OA NOT GOLD Hybrid

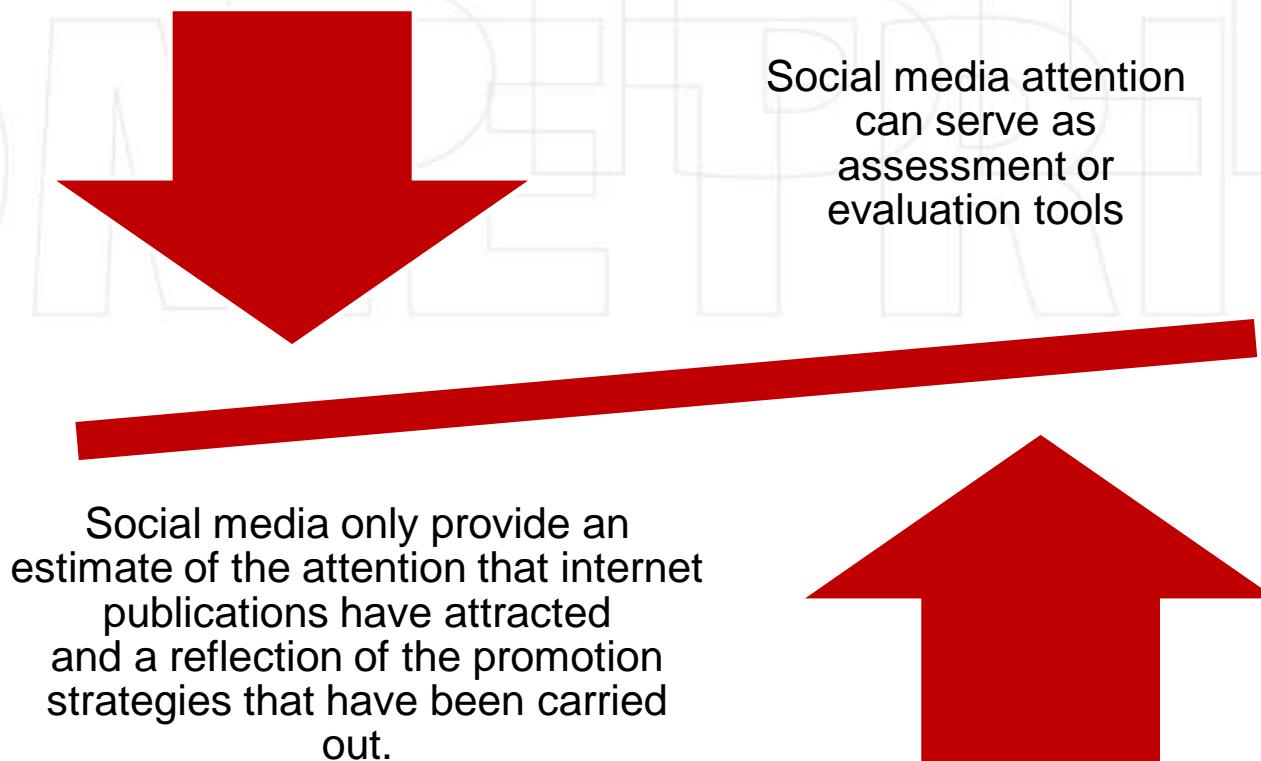


## Aumenta OA el impacto? Y la atención?

- El aumento del impacto es uno de los beneficios de Open Access?
- Desde el principio se ha creado como una obsesión por demostrarlo
- Son las citas el indicador adecuado?
- Y si empleamos las altmetrics? Sería mejor?
- Qué esperamos de ellas?
- Promoción y ciencia



## Myths and misconceptions





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## Quo Vadis Open Access?

- Lejos del horizonte del 2020



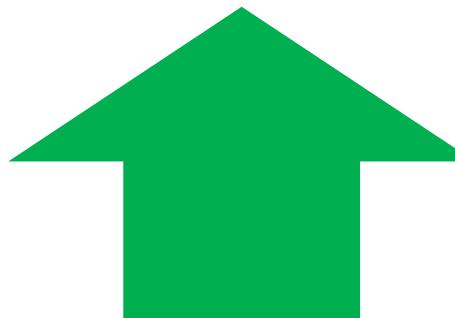
## Myths and misconceptions



The OA model should  
reign until 2020  
according to EU  
previsions

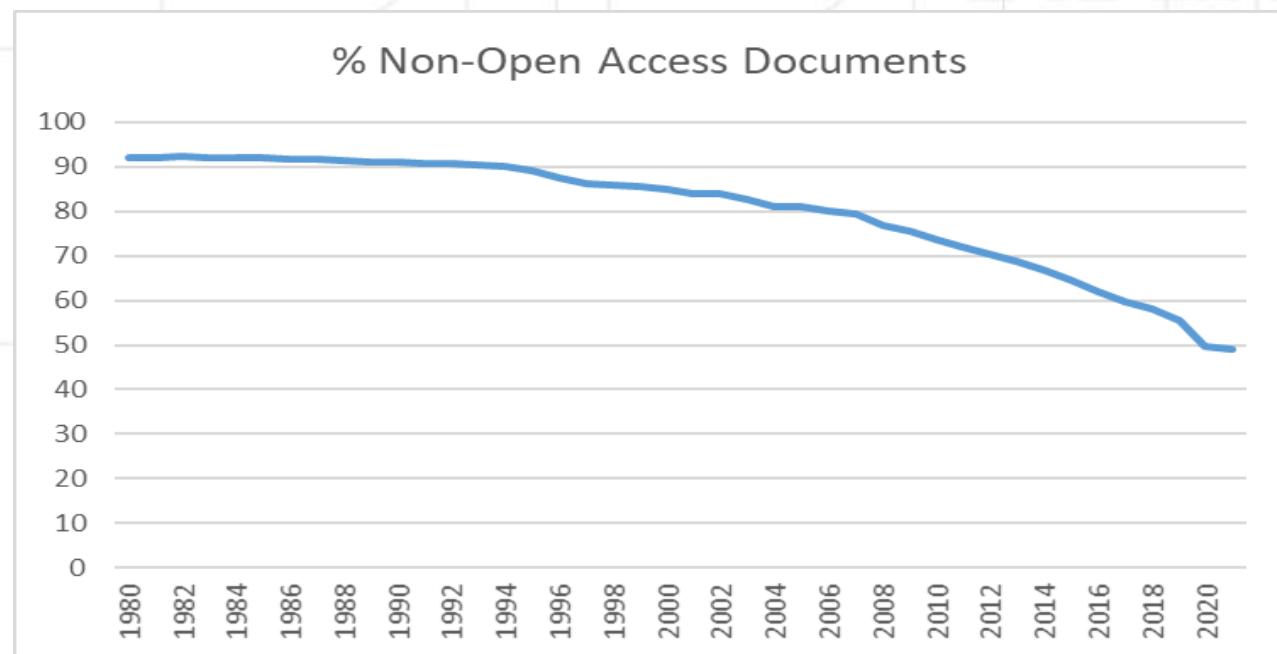


Only 18% of the publications  
in WoS CC are OA with a  
current annual increase  
around 3%. Thus target  
achievement should take  
another 30 years!





## Trends





# Trends

Research Area	No. of Science Documents	Times Cited	Rank	% Documents Cited	Category Normalized Citation Impact	% All Open Access Documents	% Non-Open Access Documents
Baseline for All Items	28,451,044	425,133,550	n/a	82.01%	1	38.49%	61.51%
1 Clinical & Life Sciences	10,403,500	175,043,438	1	83.78%	1	40.77%	59.23%
2 Chemistry	3,399,418	78,297,267	2	85.88%	1	26.79%	73.23%
3 Agriculture, Environment & Ecology	2,726,630	46,425,018	3	83.32%	1	30.89%	69.12%
4 Electrical Engineering, Electronics & Computer Science	3,140,453	34,018,625	4	74.26%	1	26.29%	73.72%
5 Social Sciences	2,094,266	22,064,109	5	74.87%	1	29.35%	70.65%
6 Physics	1,875,734	25,916,206	6	85.02%	1	43.9%	56.1%
7 Engineering & Materials Science	1,709,769	21,215,322	7	81.74%	1	25.52%	74.48%
8 Earth Sciences	970,210	13,402,584	8	85.58%	1	37.45%	62.55%
9 Mathematics	867,870	5,117,874	9	75.53%	1	40.35%	59.65%
10 Arts & Humanities	560,933	1,806,785	10	58.12%	1	20.89%	79.32%

## Quo Vadis Open Access?

- Lejos del horizonte del 2020
- El futuro de los repositorios
- De la apuesta atrevida y radical del modelo verde ....  
... a la reconciliante del modelo híbrido
- El auge de los CRIS y su prometedor futuro aún truncado
- La irrupción de los Datos de Investigación (Research Data)
- Open Access, Open Data, Open Science

„¡Qué sociedad!

-A tal sociedad, tal César. [...]“

„Roma se tapa los oídos cuando te oye; y el mundo se ríe de ti.“

— Henryk Sienkiewicz, libro Quo Vadis?

Quo Vadis?





## Cuáles son los efectos de Open Access?

- La proliferación de publicaciones
  - Causa de la crisis del peer review
  - El auge de las revistas depredadoras
  - El nuevo papel del corresponding author
- 
- La democratización: Open Peer Review
  - Las estrategias para subvencionar open access
  - Importancia del monitoreo



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por su atención!**



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# Open Access

- Es OA realmente un cambio de paradigma para la puesta a disposición pública del conocimiento científico? (\*Rainer Kuhlen, Konstanz)  
Paradigma y revolución científica
- Se está convirtiendo en una religión? Is there a dogmatism?  
La batalla de las definiciones y las licencias  
El laberinto de las licencias y los colores  
Insuficiente consideración de las diferentes culturas de publicación
- El futuro de los repositorios. OA Quo vadis?
- Does OA increase the visibility of the publications?
- And the chance to be cited? Are citations the appropriate indicators?  
The shortcomings of citations
- What can we expect from the altmetrics?  
Inadequate consideration of the addressed target groups in impact assessment
- Cuales son los efectos de OA?  
Importancia de analizarlos y estudiarlos  
La proliferación de publicaciones  
Incremento de la crisis del peer review  
El nuevo papel del corresponding author  
Las estrategias para superar open access

# <https://creativecommons.org/about/cclicenses/>

La mayoría de los títulos se encuentran en acceso abierto bajo una licencia Creative Commons especialmente adaptada, que permite a cualquier usuario descargar, copiar, distribuir, traducir, reutilizar, adaptar y desarrollar su contenido sin costo alguno.

Las únicas condiciones que se exigen al otorgar la licencia de atribución denominada CC-BY-SA son las siguientes:

- La UNESCO deberá ser claramente identificada como propietaria de los derechos de autor de la publicación original; y
- Toda obra derivada deberá publicarse y distribuirse bajo la misma licencia de acceso abierto que se otorga en la publicación original.

• Las licencias Creative Commons son modelos de contratos que sirven para otorgar públicamente el derecho de utilizar una publicación protegida por los derechos de autor. Entre menos restricciones implique una licencia, mayores serán las posibilidades de utilizar y distribuir un contenido.

• Algunas publicaciones del Repositorio de acceso abierto exigen condiciones adicionales para la utilización de su contenido. Dichas condiciones adicionales dependen del tipo de licencia que se otorgue, tal como se explica a continuación:

• Attribution-ShareAlike 3.0 IGO

• Los usuarios pueden mezclar, transformar y crear a partir del contenido de nuestra publicación



## Increasing visibility in SSH at the University of Vienna

- **First project** launched in **July 2014** supported by the Rectorate
- **29 professors** of different SSH faculties were **interviewed**
- Phase 1 ended with a **workshop** for SSH researchers in **summer 2015**
- **Recommendations** published by the Rectorate
- **Follow-up project** launched in **January 2016**, **Questionnaire** developed based on the interview guidelines of the previous project
- **Online survey:** 3567 questionnaires sent out, 524 complete responses received (14.7% response rate)
- Phase 2 ended with a **report** and a **workshop** (20 June 2017)
- **Follow-up project** launched in **September 2018 : Qualitative interviews** (Predocs, Postdocs and Tenure Track researchers)
- **First set of 20 interviews** scheduled for winter semester 2018/19



## Our Philosophy

If we want to evaluate the scientists' performance...

we should also be able to tell them how to do it better...

Therefore, we need clear criteria and well-accepted standards



## Increased visibility in the Social Sciences and the Humanities

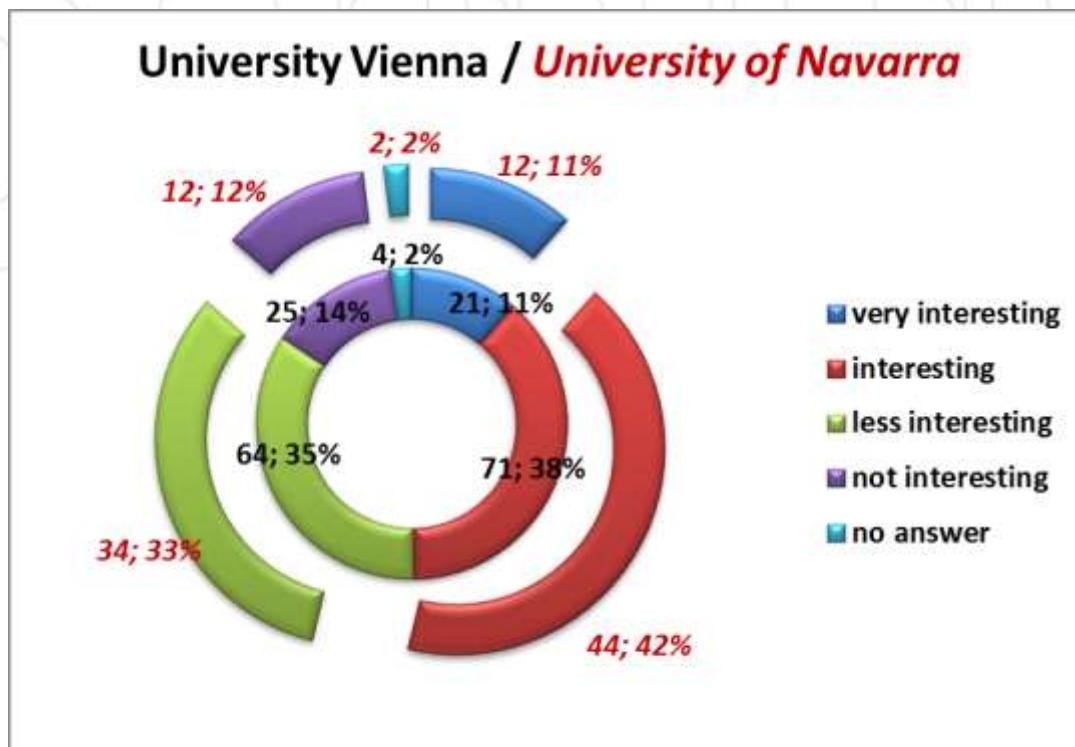
### Recommendations derived from the online survey

- Gaining further knowledge into the various publication cultures
- Optimisation of the use of **e-resources** offered and the available infrastructure
- Intensified raising of **awareness of available policies and recommendations** and their monitoring
- Further development of existing services and development of new services to support research
- Identify field-specific distinctive features
- Derive meaningful quantitative indicators
- Exploration of new metrics and evaluation methods



## What do the scientists think in the Humanities?

*Are you interested in the resonance of your research output in forms of discussions, blogs, bookmarks, tweets, etc...*



*Healthy  
scepticism!*



Research Topic

## Increasing the Visibility of Research in the Social Sciences and Humanities (SSH)

Like

Comment

0

0



0

0  
New

Submit your abstract

Submit your manuscript

Overview

Articles

Authors  
3

Impact

Comments

VIEWS  
**89**

### About this Research Topic

Research outputs in the Social Sciences and Humanities (SSH) get a much smaller fraction of citations than other disciplines do. The same is true concerning coverage in multidisciplinary bibliographic databases, like the Web of Science and Scopus. Unfortunately, research assessment exercises and rankings still heavily rely on these databases as well as on citation-based indicators. This results in a non-satisfying representation of SSH outputs and an understandably hesitant attitude of SSH researchers towards any kind of quantitative evaluation. However, peer-review has also reached its limit in all disciplines due to the exponential growth of research output, increased multidisciplinarity and a comparatively reduced number of appropriate peers. Furthermore peer-review in SSH is sometimes considered not as rigorous as in the Sciences.

### Topic Editors



**Christian  
Gumpenberger**

University of Vienna  
Vienna, Austria



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**Evaristo Jiménez-  
Contreras**

University of  
Granada  
Spain



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38 publications

<https://www.frontiersin.org/research-topics/7271/increasing-the-visibility-of-research-in-the-social-sciences-and-humanities-ssh>



## Bibliometric profile: multidimensional approach



**Bibliometric profile for Prof. XXXXXXXX\***

Universität Wien

- ✓ Website: <https://bibliometria.at/>
- ✓ ORCID: <https://orcid.org/0000-0002-3414-9212>
- ✓ Google Scholar Profile: <https://scholar.google.at/citations?hl=de>
- ✓ WIKIPEDIA: <https://en.wikipedia.org/>

Activity	Visibility
<ul style="list-style-type: none"><li>Since XXXX: YYY publications in WoS (YY articles, Y reviews)</li><li>Strongly increasing publication activity (X% annual average growth)</li><li>Y publications in WoS CC per year</li><li>Y% first, last or corresponding AU</li><li>Z mean &amp; median number co-authors</li><li>X books and Y international patents</li></ul>	<ul style="list-style-type: none"><li>X publications in <i>Nature</i></li><li>Y in <i>Nature</i> branded journals</li><li>Z in Science</li><li>XXXXXX</li><li>Publications in Y journals and serials, and in Z editorials</li></ul>
Impact	H-INDEX 50
<ul style="list-style-type: none"><li>X citations, Y citations per cited publication</li><li>X publication with 1000 citations, Y with &gt;500 and Z with &gt;100 citations</li><li>X% of the cited publications belongs to the TOP 1% most cited in the corresponding category and Y% to the TOP 10%</li><li>Cited by XX countries, thereof USA (X%), etc. (Z%)</li></ul>	
Collaboration	
<ul style="list-style-type: none"><li>YY% of publications in international collaboration</li><li>Co-publication with xx countries, thereof USA (xx%), etc.</li><li>Most collaborative institutions: Society or University</li></ul>	
Web attention	
<ul style="list-style-type: none"><li>X views, Y downloads and Z captures</li><li>Y mentions in mass media</li><li>Z mentions in social media (tweets, etc.)</li></ul>	

The profile covers all the publication year. The primary data are Web of Science Core Collection and InCites. Citations were collected by the end of July 2018. © Vienna University Library



## General conclusions I

- The higher productivity (number of publications per year) and citation counts, are relativized when also considering the higher number of co-authors and percentage of self-citations
- General publication strategies, especially these based on the impact factor, are still more evident in the fields related to the natural sciences
- The results hint at very heterogeneous and individual publication strategies considering the selection of adequate publication channels even in the same research fields
- Journal Articles and Book Chapters are the most used publication channels - Monographs, Journal Articles (including Proceedings Papers) and Book Chapters are the most cited document types

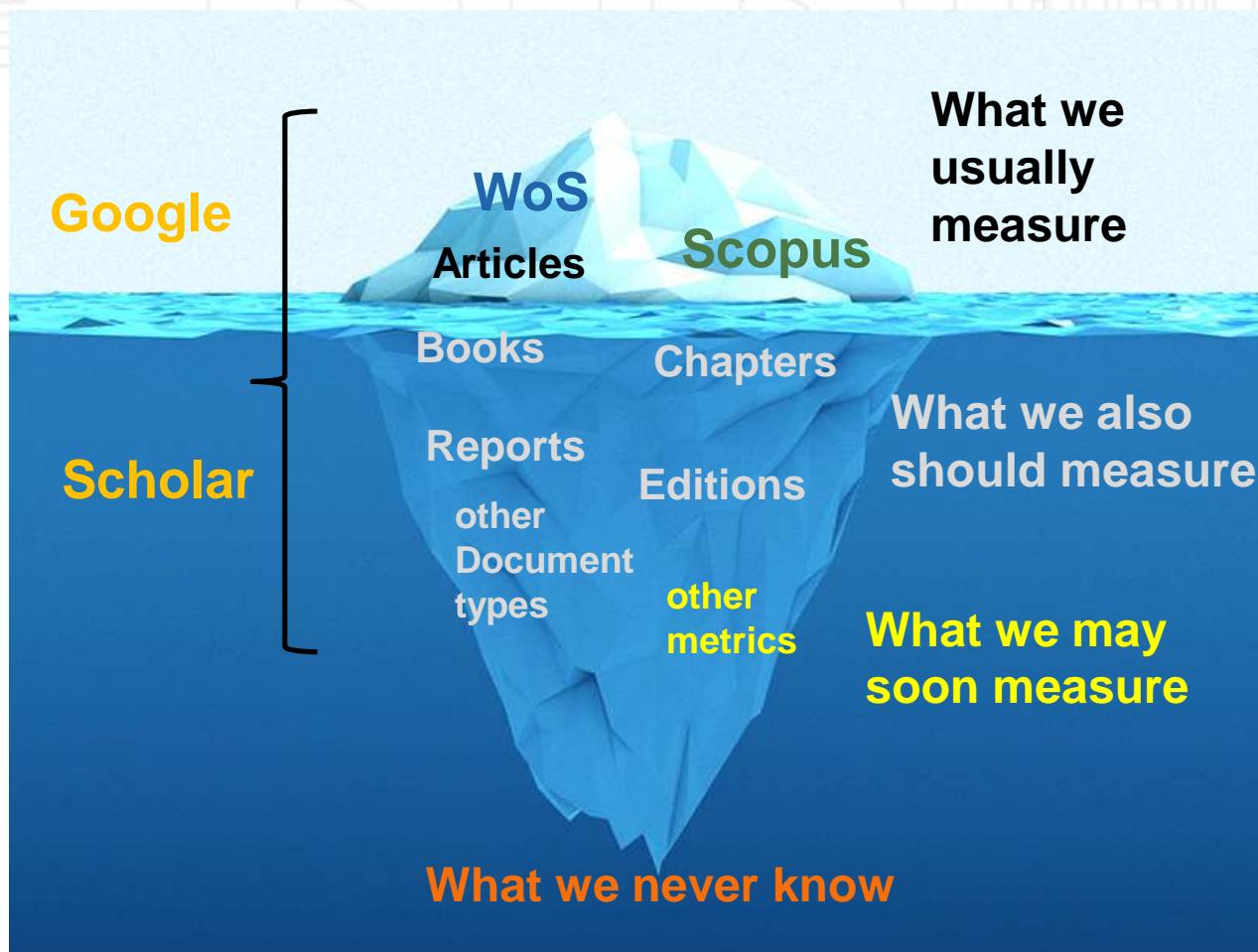


## General conclusions II

- The coverage, especially books, is much higher in Google Scholar and suggests the recommendation of this data source as complementary one, although this data source is still a black box (no transparency, missing content information, etc.). In this study the accuracy of the citations in GS was very high (~95%). Nevertheless further measures are needed to reduce the noise of Google Scholar data in order to increase the significance of this alternative data source for evaluative purposes.
- Therefore, citation analyses for monographs, book chapters and reports (working papers) should be conducted separately and require the inclusion of complementary data sources. Otherwise relevant publications can be easily missed, resulting in wrong interpretations.



## Citation “Iceberg” model



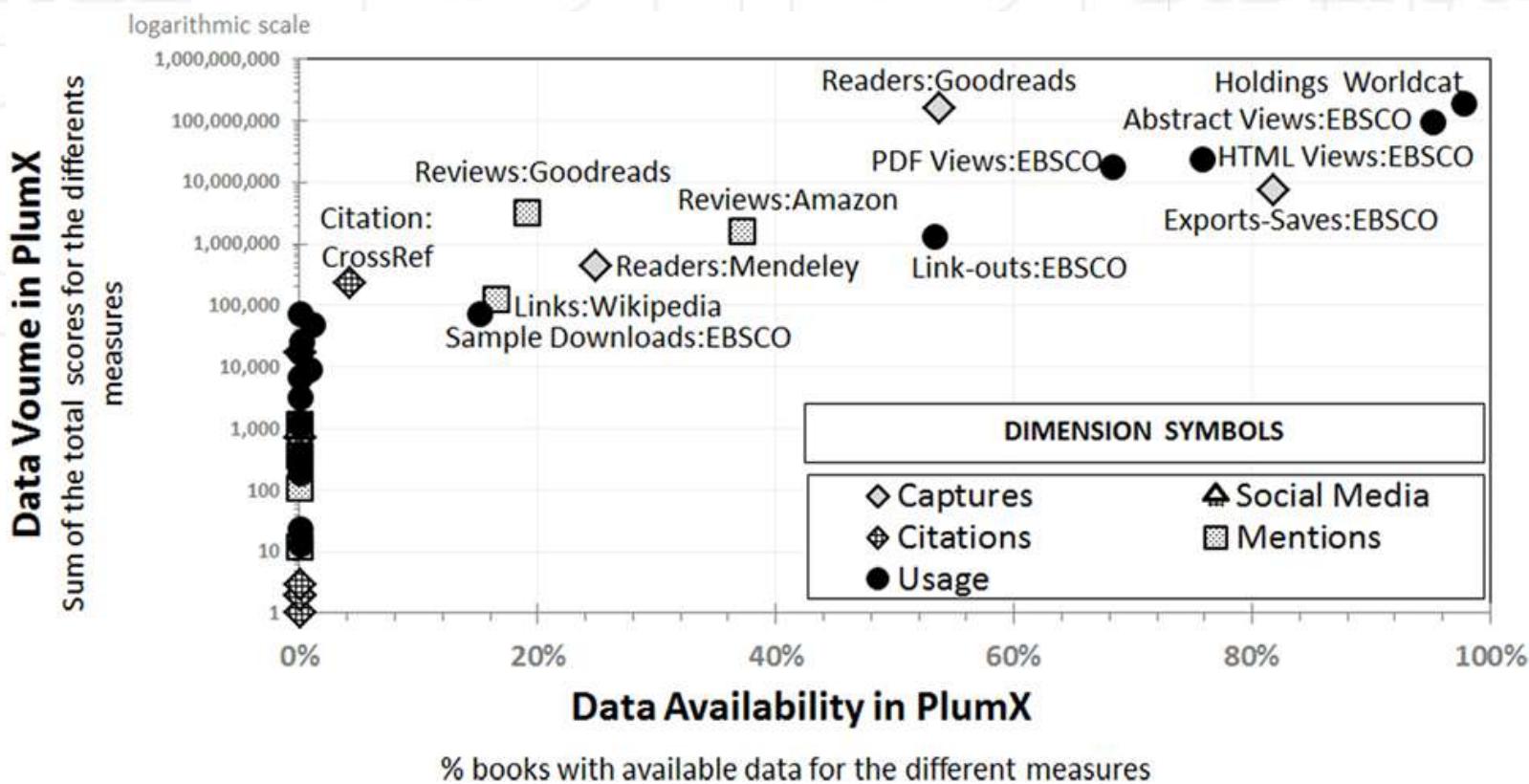


## General Conclusions from Monitoring Services

- ✓ Monitoring practices provide an interesting information and help to reveal new trends and to assess the degree of implantation
- ✓ Study hints at an increasing use of Social Media within the scholarly community in general and a particularly increase of Twitter usage in Austria
- ✓ highest % coverage by # readers in Mendeley independently of the area
- ✓ lowest % coverage in “Arts & Humanities”, nevertheless **usage** scores still high
- ✓ % of uncited data in this area is 2-3 times higher than in the other areas (due to longer citing half -life and the lower reference densities)
- ✓ Behaviour of the 4 hard sciences (Engineering & Technology, Health Sciences, Life Sciences and Physical Sciences) very similar in all dimensions, except in the social media, where Health and Life Sciences account for highest % of coverage, followed very closed by the Social Sciences
- ✓ percentage values for Social Sciences in the other three dimensions (captures, citations and mentions) in-between the ones for the hard sciences and the ones for Arts & Humanities
- ✓ Social media: low % of coverage for the Physical Sciences and relative insignificance in the “Arts & Humanities”



# Explorative uses of “all metrics”: assessing the broad impact of books





## Are the Humanities the Achilles heel of bibliometrics?

- Bibliometric approaches tailored to the hard sciences
- Insufficient consideration of the different publication cultures
- Low coverage in the traditional bibliometric data sources
- The shortcomings of citations
- Inadequate consideration of the addressed target groups in impact assessment

## Or just unfavourable framework?

## New opportunities and challenges

- Developing and using alternative data sources and indicators
- Considering usage metrics
- Considering altmetrics (social media)
- Developing publication strategies in order to increase the visibility

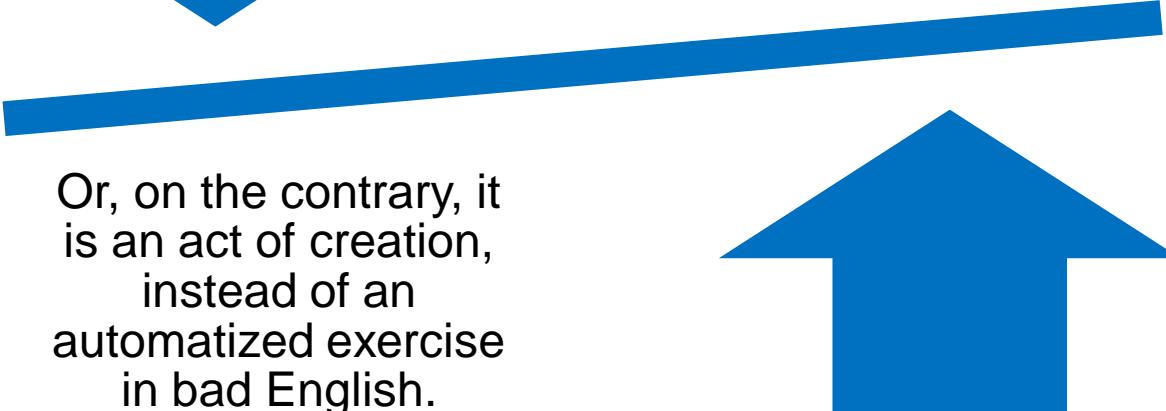




# Myths and misconceptions I



A publication is a fast, efficient and concise means of communicating results



Or, on the contrary, it is an act of creation, instead of an automatized exercise in bad English.



## Humanities: origin and language

"Humanities are academic disciplines that study aspects of human culture.  
In the Middle Ages, the term contrasted with divinity..."



**Latin and Greek  
played the role of  
today's English!**



## Myths and misconceptions II



Cooperation  
increases quality  
and/or impact

A publication is  
something individual  
and creative and  
therefore hampers  
cooperation





## Humanities: Multi-authored papers still rare!



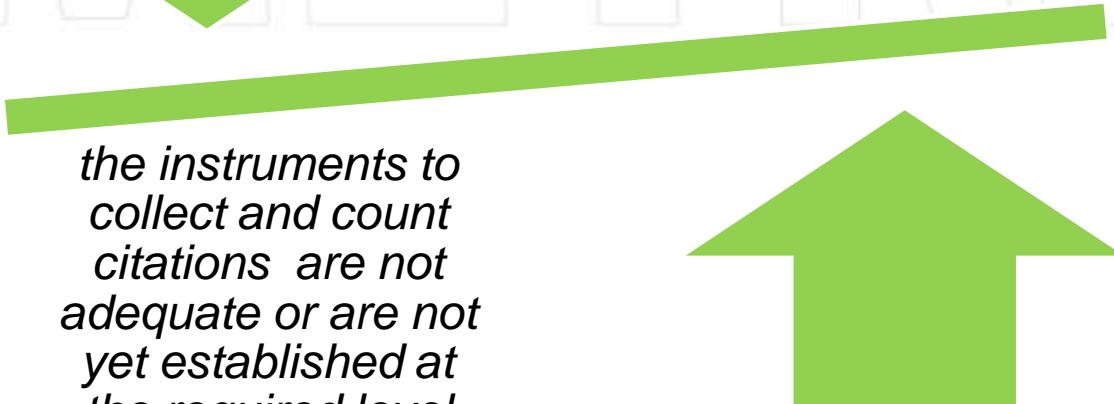
“You should spend the next week typing down names  
of all co-authors on your paper.”



## Myths and misconceptions III



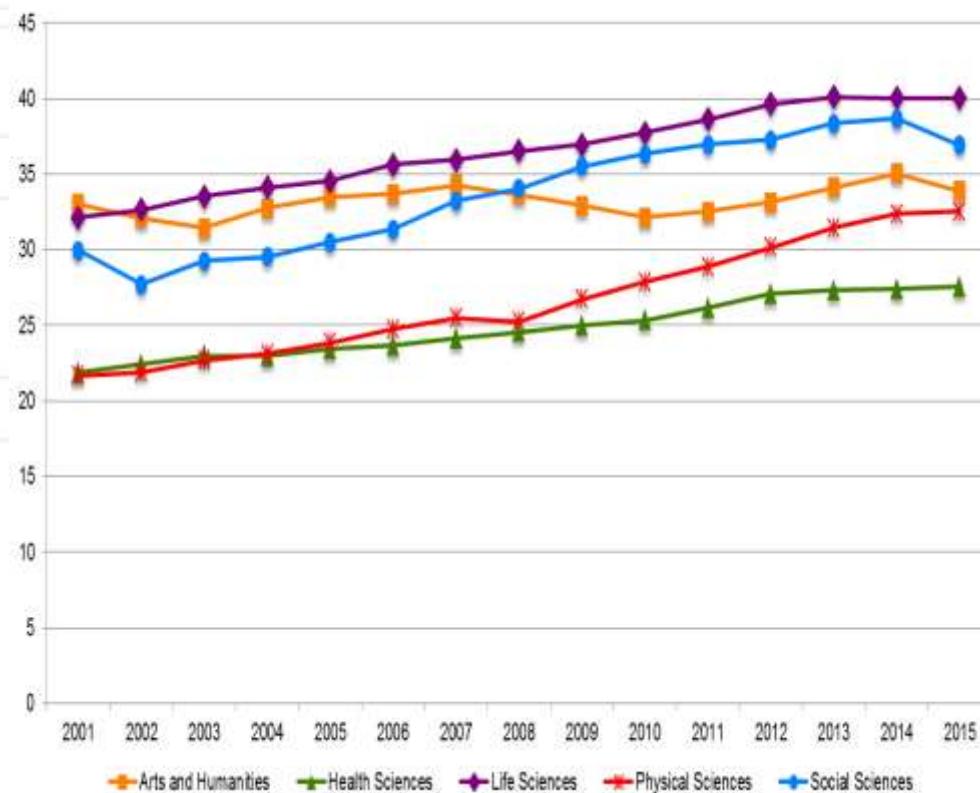
citations are insufficient in the humanities



*the instruments to collect and count citations are not adequate or are not yet established at the required level*



## Humanities: Very heterogeneous citation habits!



Citation densities  
are not lower!

But longer half-  
lives!



# Myths and misconceptions IV





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# Leiden Ranking

 CWTS Leiden Ranking

Leiden University

CWTS

CWTS B.V.

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## CWTS Leiden Ranking 2018

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List view



Chart view



Map view

### Time period, field, and region/country

### Indicators

Time period:

2013–2016

Type of indicators:

Impact

?

Field:

Social sciences and humanities

Indicators:

P, P(top 5%), PP(top 5%)

?

Region/country:

World

Order by:

P

?

Min. publication output:

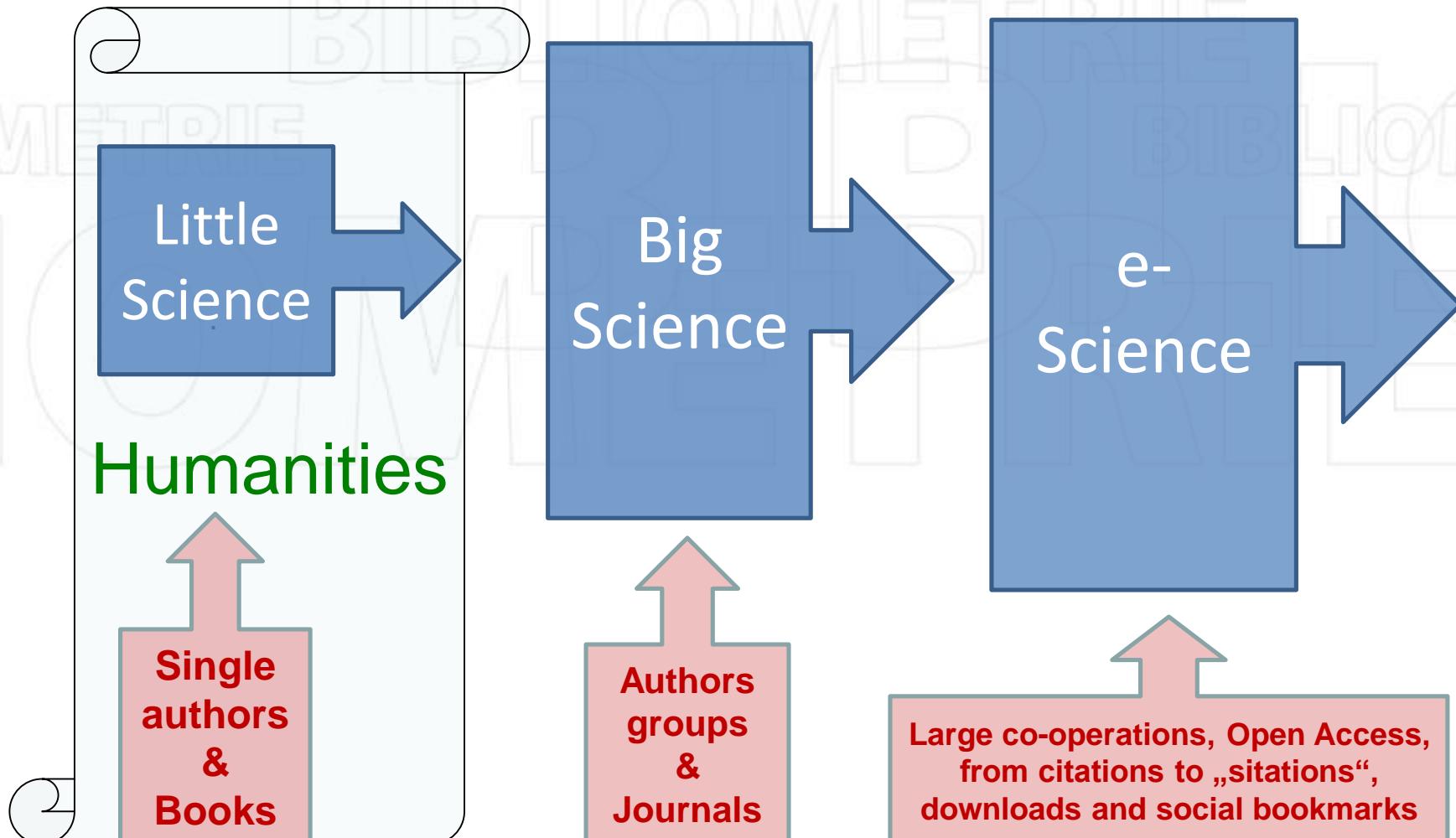
No minimum

Calculate impact indicators using fractional counting

?



## Science is changing, ... but the speed is different



Increasing competition as a catalyst?



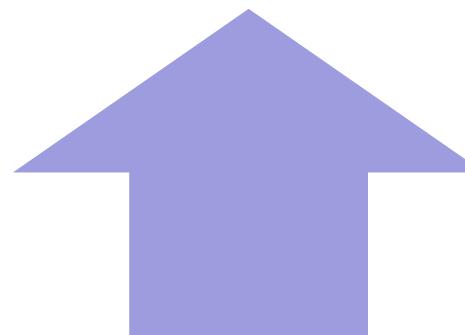
## Myths and misconceptions X



Views and downloads, indicators of usage metrics, are more susceptible to manipulation than citations

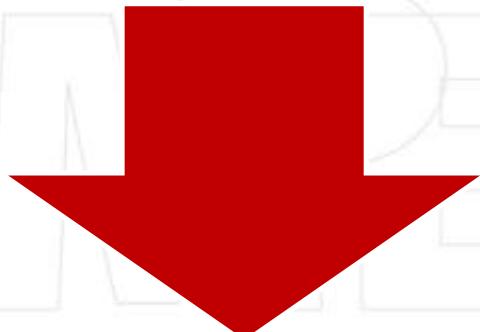


Rejection of usage metrics is just an excuse not to use them because they are not always available



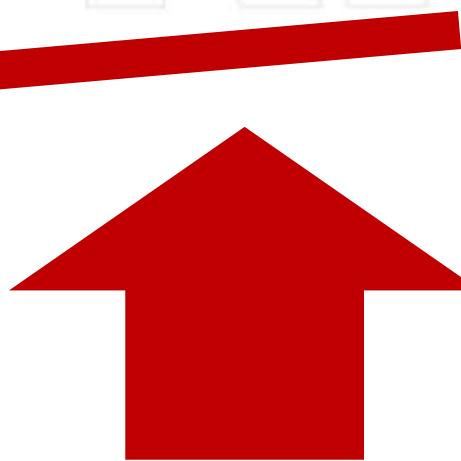


## Myths and misconceptions XI



The hard sciences have advanced from little science to big science to e-science (**increasing competition as a catalyst**), whereas the humanities have remained stagnant in the very first phase and thus hamper progress

The humanities still resist progress, because the development in the hard sciences is perceived as wrong and corruptive to science (e.g. publish or perish!)





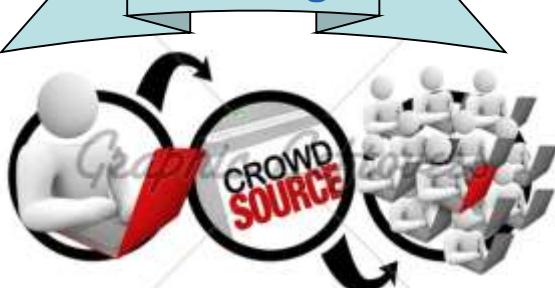
## Myths and misconceptions XII

- 
- The diagram features two large red arrows. One arrow points downwards from the top text block to the bottom text block. The other arrow points upwards from the bottom text block back towards the top text block.
- Social media attention can serve as assessment or evaluation tools
  - Social media only provide an estimate of the attention that internet publications have attracted and a reflection of the promotion strategies that have been carried out.



## The future of Science

Crowd  
sourcing?



Crowdsourcing is a way of  
*solving problems* and  
*producing things* by connecting  
online with people  
that you otherwise  
wouldn't know



Or Babel's  
tower?



Global  
brain?





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JULY 15 – 20  
**2019**  
**LEUVEN**

Looking forward to seeing you in Leuven 2019!