Arts and humanities and the others: Why can’t we measure arts and humanities

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Why we choose this subject?

A policy maker told us that: “We need to develop impact factor for arts and humanities journals”

Why?

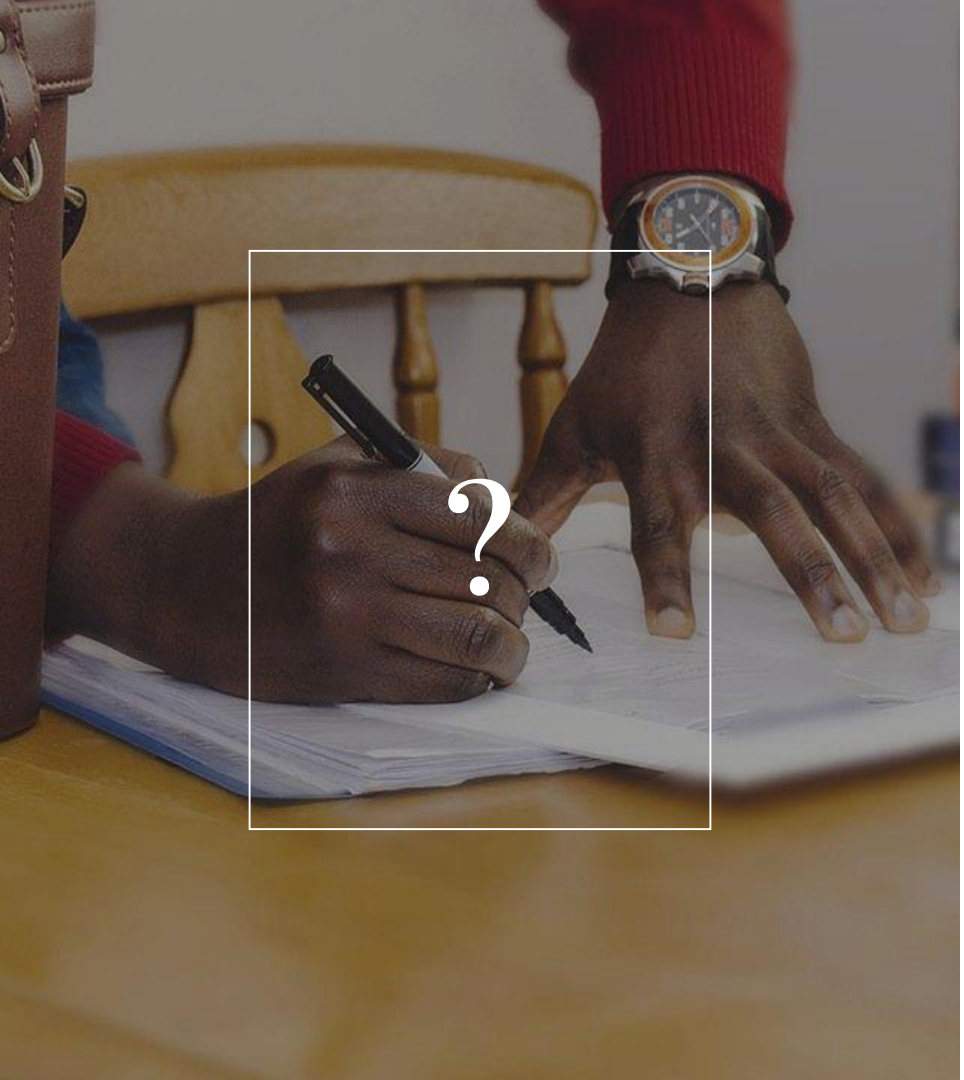
To evaluate researchers!!

The field that different from any other fields we know!

What kinds of differences?

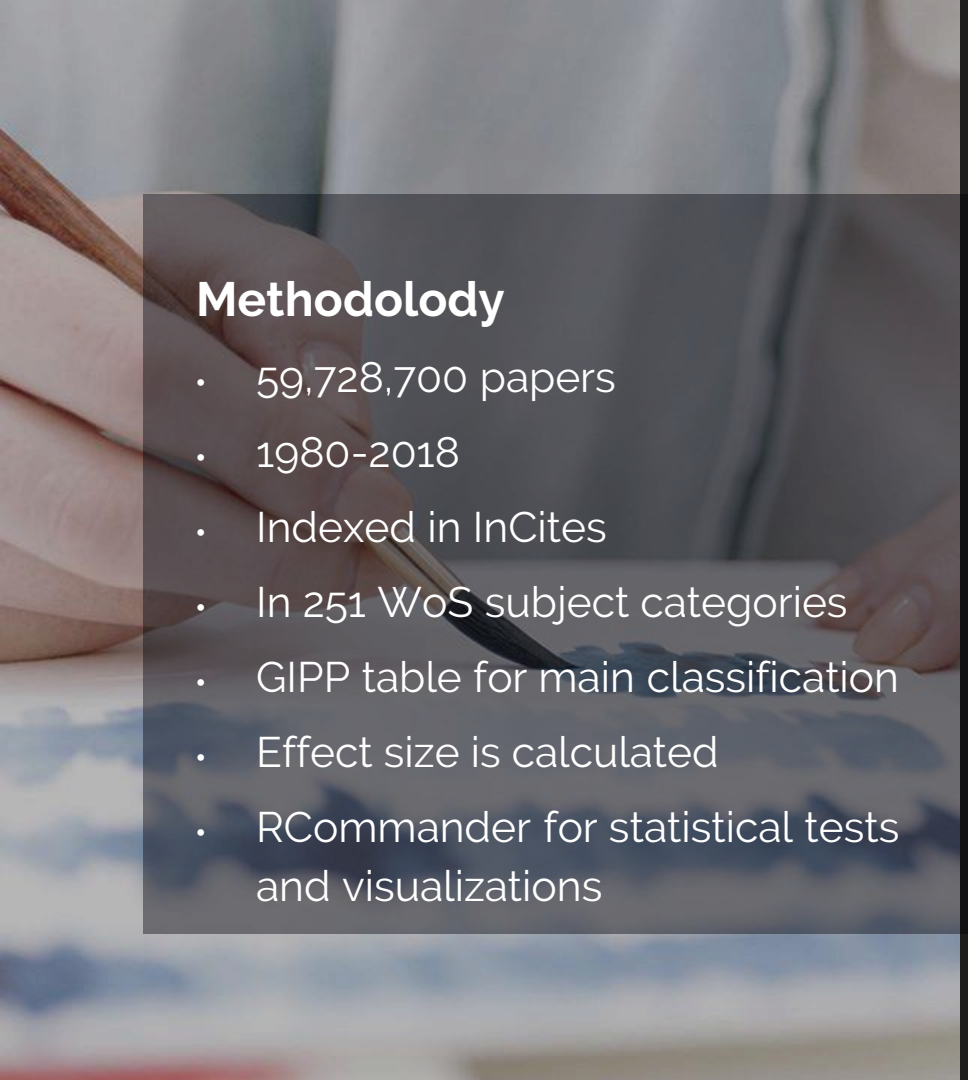
“

The definition of “product”, publication & citation patterns, definition of success & success measurements, collaboration patterns…



Research questions:

- To what degree Arts & Humanities differ from other fields in terms of the number of publications and citations?
- What is the difference between Arts & Humanities and other fields by percent of documents cited and highly cited?
- Do the collaboration practices (percent of industry collaboration and international collaboration) of Arts & Humanities similar to Social Sciences?
- Are there any differences between Arts & Humanities and other fields by the percent of open access publications?



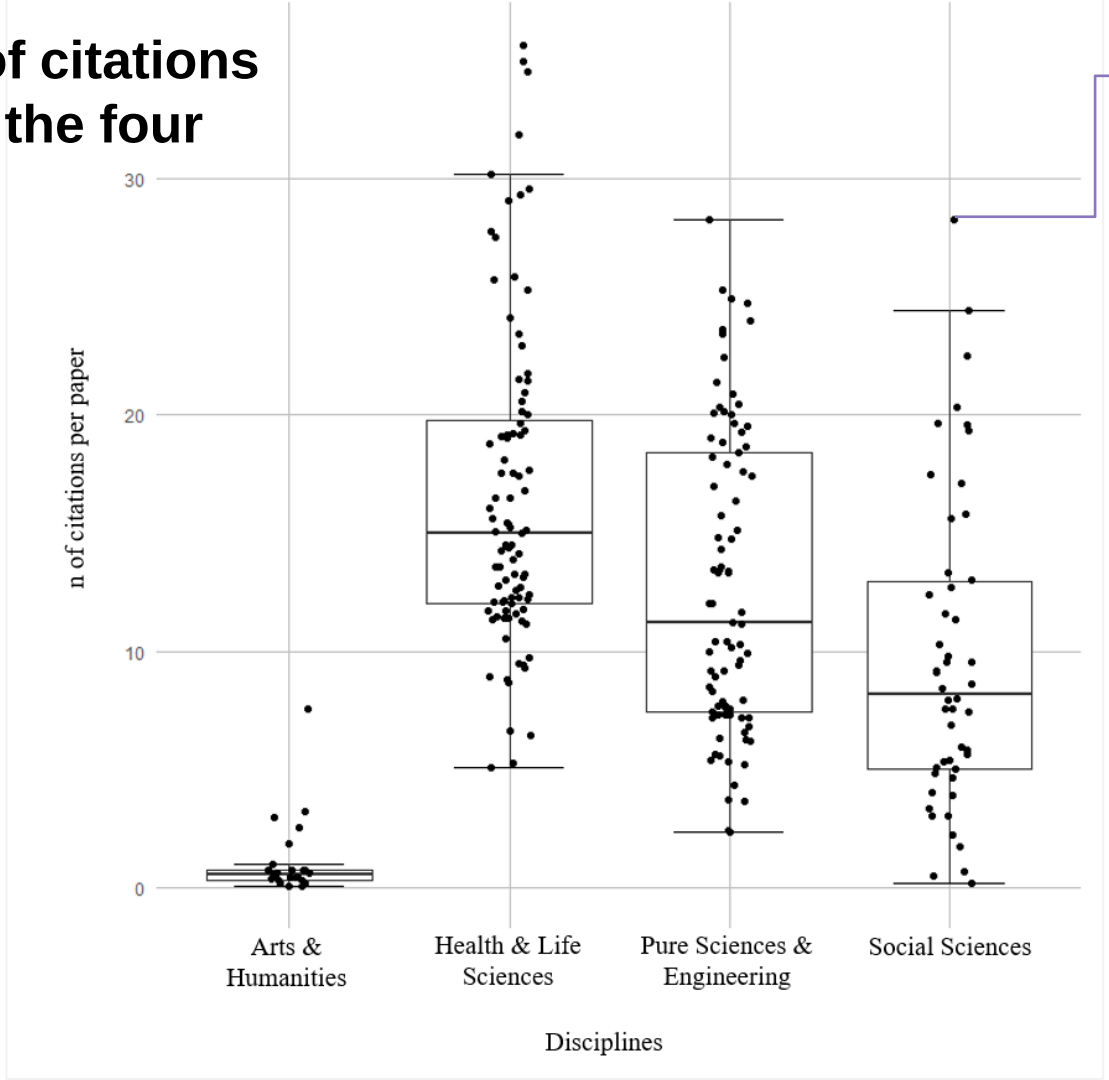
Methodolody

- 59,728,700 papers
- 1980-2018
- Indexed in InCites
- In 251 WoS subject categories
- GIPP table for main classification
- Effect size is calculated
- RCommander for statistical tests and visualizations

Categories

- Health & life sciences
- Pure sciences & engineering
- Social sciences
- Arts & humanities

Distribution of citations per paper for the four fields



Descriptives for the scientific production of the fields

Descriptives	Health & Life Sciences	Pure Sciences & Engineering	Social Sciences	Arts & Humanities
N of publications	41,129,467	41,479,185	9,146,177	5,406,112
Times cited	771,290,132	571,492,968	91,885,109	5,782,543
Documents cited (%)	69%	66%	49%	18%
Highly cited papers (%)	21%	23%	17%	0.50%
Industry collaboration (%)	1.27%	1.94%	0.32%	0.01%
International collaboration (%)	15%	15%	8%	1%
Open access (%)	17.70%	8.73%	7.63%	2.67%

Kruskal Wallis test results

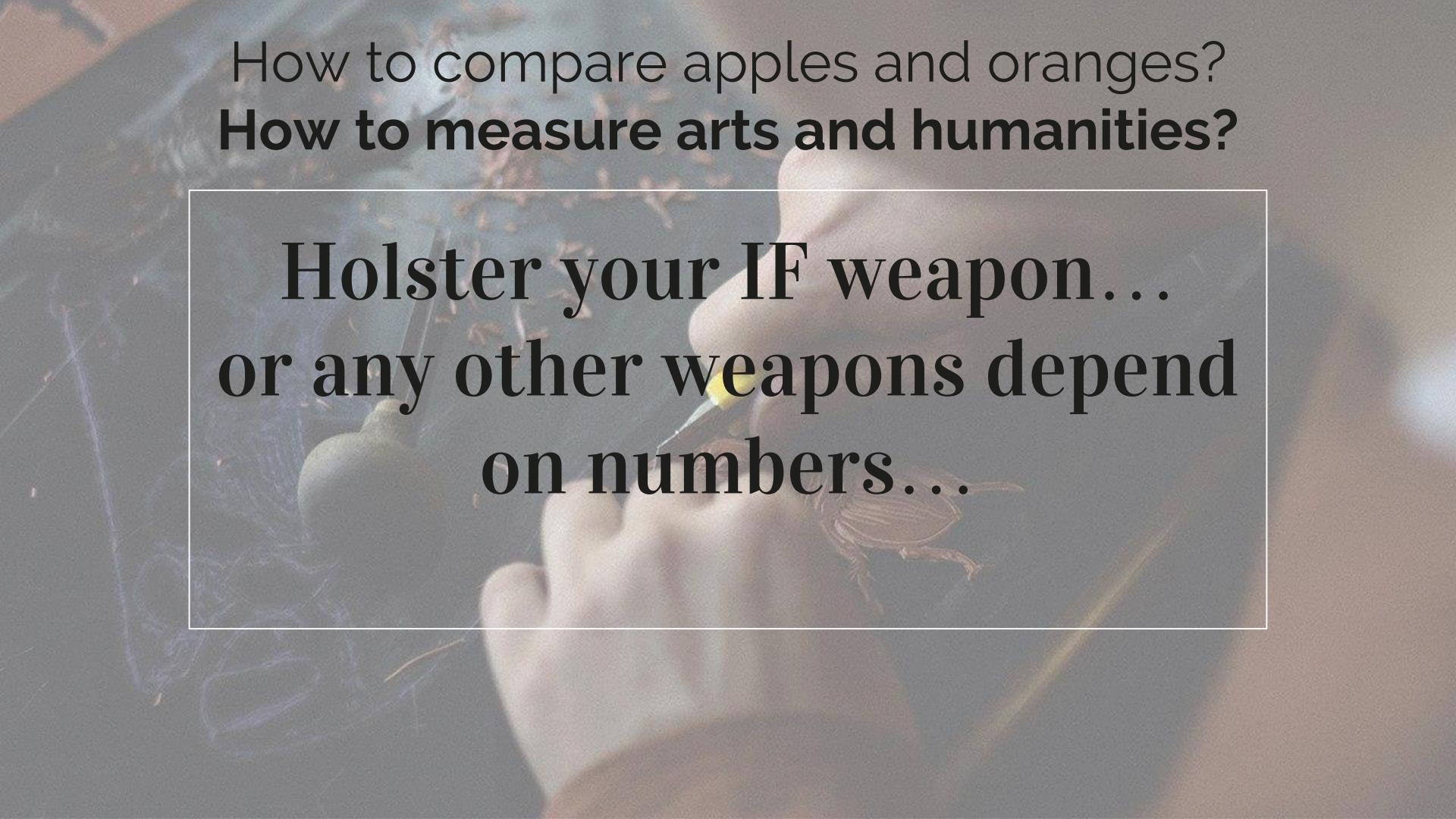
Number of publications by category: H=35.101, *p*<0.001, η_H^2=0.129

Number of citations by category: H=92.998, *p*<0.000, η_H^2=0.361

Variables	H	p	η_H^2
% of documents cited	108.774	0.000	0.425
Highly cited papers (%)	66.673	0.000	0.256
Industry collaboration (%)	151.576	0.000	0.597
International collaboration (%)	111.335	0.000	0.435
Open access (%)	128.053	0.000	0.502

Mann Whitney U test results

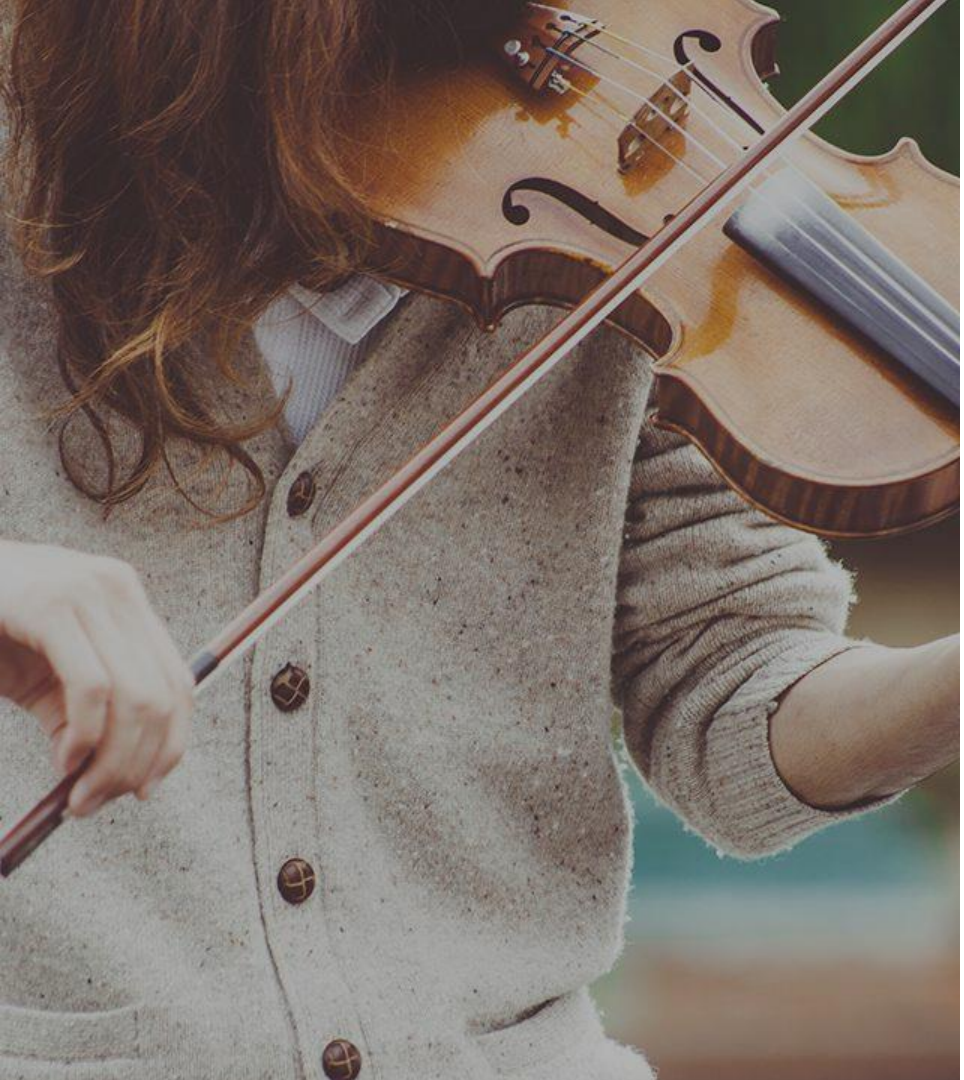
	Number of publications			Number of citations		
Categories	U	p	r_G	U	p	r_G
Health & Life Sciences X Pure Sciences & Engineering	3689.500	0.517	-	3552.500	0.294	-
Health & Life Sciences X Social Sciences	1315.000	0.000	0.428	896.000	0.000	0.610
Health & Life Sciences X Arts & Humanities	704.000	0.001	0.411	47.000	0.000	0.961
Pure Sciences & Engineering X Social Sciences	999.000	0.000	0.530	956.000	0.000	0.984
Pure Sciences & Engineering X Arts & Humanities	574.000	0.000	0.480	63.000	0.000	0.943
Social Sciences X Arts & Humanities	642.500	0.935	-	141.500	0.000	0.782



How to compare apples and oranges?

How to measure arts and humanities?

Holster your IF weapon… or any other weapons depend on numbers…



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Signatory of DORA

Helsinki Initiative on Multilingualism

Hi!

The Leiden Manifesto for research metrics

Zehra Taşkın Güleda Doğan Emanuel Kulczycki Alesia Ann Zuccala June 18th, 2020

Long read | Science needs to inform the public. That can't be done solely in English

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Considering disadvantages in science
Language, science elites, Matthew effect, Mathilda Effect…
Disciplinary differences…

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