

# ***The Case for a Percentage-based Author-contribution System in Scientific Publishing***

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*7<sup>th</sup> WORLD CONFERENCE ON RESEARCH INTEGRITY  
ATHENS, GREECE  
WEDNESDAY, JUNE 5, 2024 • OP 33, MC2 HALL 15:00-16:00*



# What is the role of journal publications in researchers' evaluation?

Free-Arm and Industrial Drawing

I. TYPICAL BOARD OF EDUCATION EXAMINATION SYLLABUS IN DRAWING

TECHNICAL POINTS

Free-Arm and Industrial

barbaric tribes in general. Lastly, by Japan in common with most freely employed, i.e. by all to whom expert draughtsmen in its widest, deepest sense.

Therefore, what the child asks for, ever delights in by its

16

allied to painting (which is entirely a system of shading with the brush), but it is also closely connected with other kindergarten exercises, as eg-

"massing" consists in drawing a series of objects can be built up in this way. The objects are drawn into larger shapes, and that is made possible by other additions. It is quite an evolutionary or accretive process.

Afterwards, when the scholars grow older, they are taught to draw a good outline right off at the beginning, because they must necessarily grow experienced in outline drawing and drawing of a mass is as easier. They are then taught to draw with chalk by care-embellishments, and to draw the object.

tion of the Plates

# Is the current system for acknowledging authors' contribution fair / meritocratic?

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**If not, how**  
**can we improve it**  
**in a way that would**  
**promote RI?**

### Free-Arm and Industrial Drawing

### BOARD OF EDUCATION EXAMINATION SYLLABUS IN DRAWING Preliminary Examination for Elementary School Teachers' Certificate

### TECHNICAL POINTS

### Free-Arm and Industrial Drawing

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"massing" consists in building up a series of objects can be built up in a series of stages, the starting-point, and that it is possible to add to it. It is quite an evolutionary or accretive process. Afterwards, when the scholars grow older, they are taught to draw a good outline right off at the beginning, because they must necessarily grow experienced in a way as an artist. They are given a series of outlines with chalk by care-embellishments, and to the object.

# The current status

- Peer-reviewed journal publications play a key-role in most stages of career development in academia
- Three “axioms” for journal publications
  - the **more** in number, the **better**
  - the **higher** the journal impact, the **better**
  - the **higher** the citation count, the **better**

**What  
has this  
lead to?**

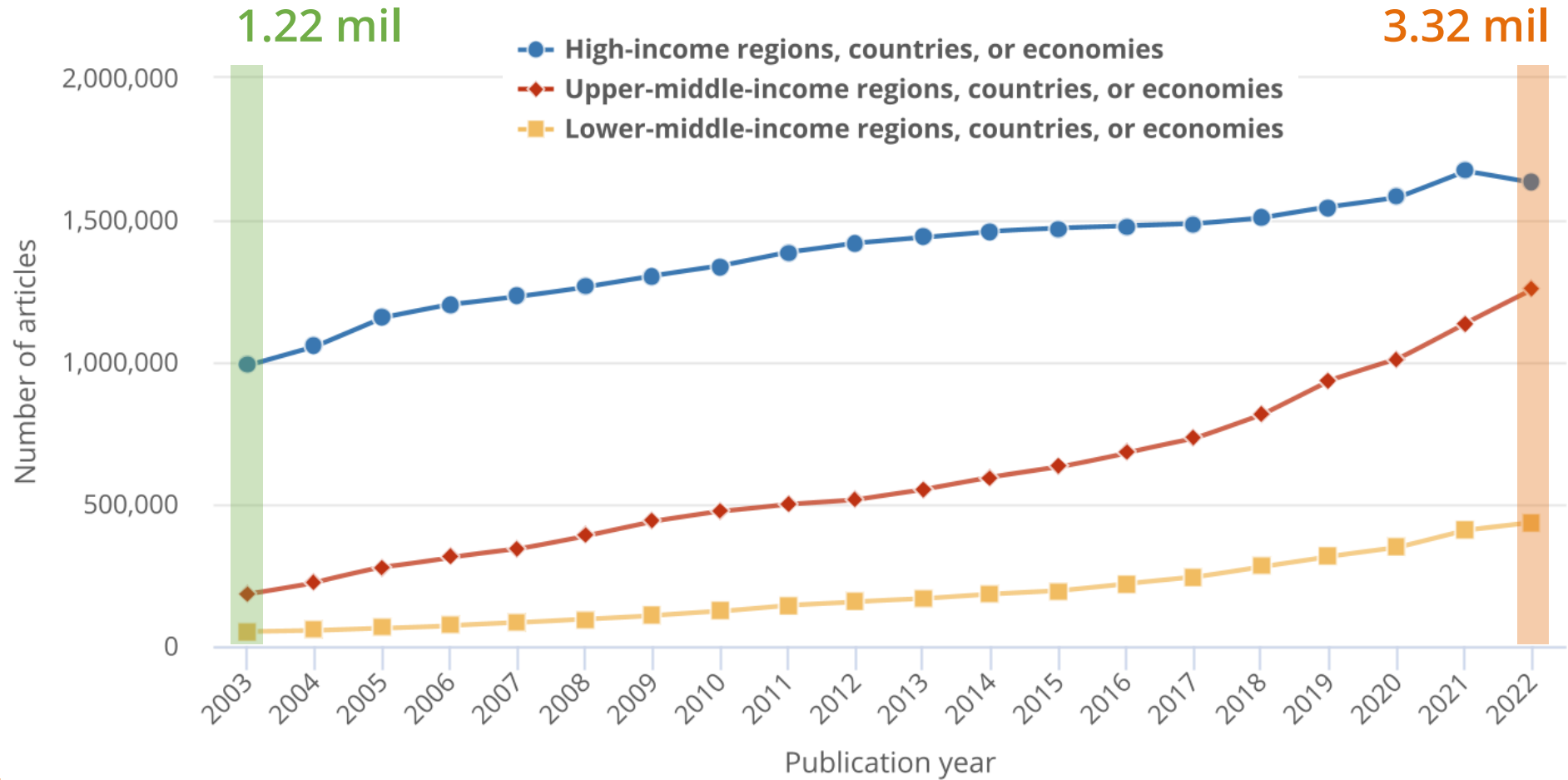
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What do the data show?

## • Increase in number of publications (📖 NCSES, NSF, 2024)

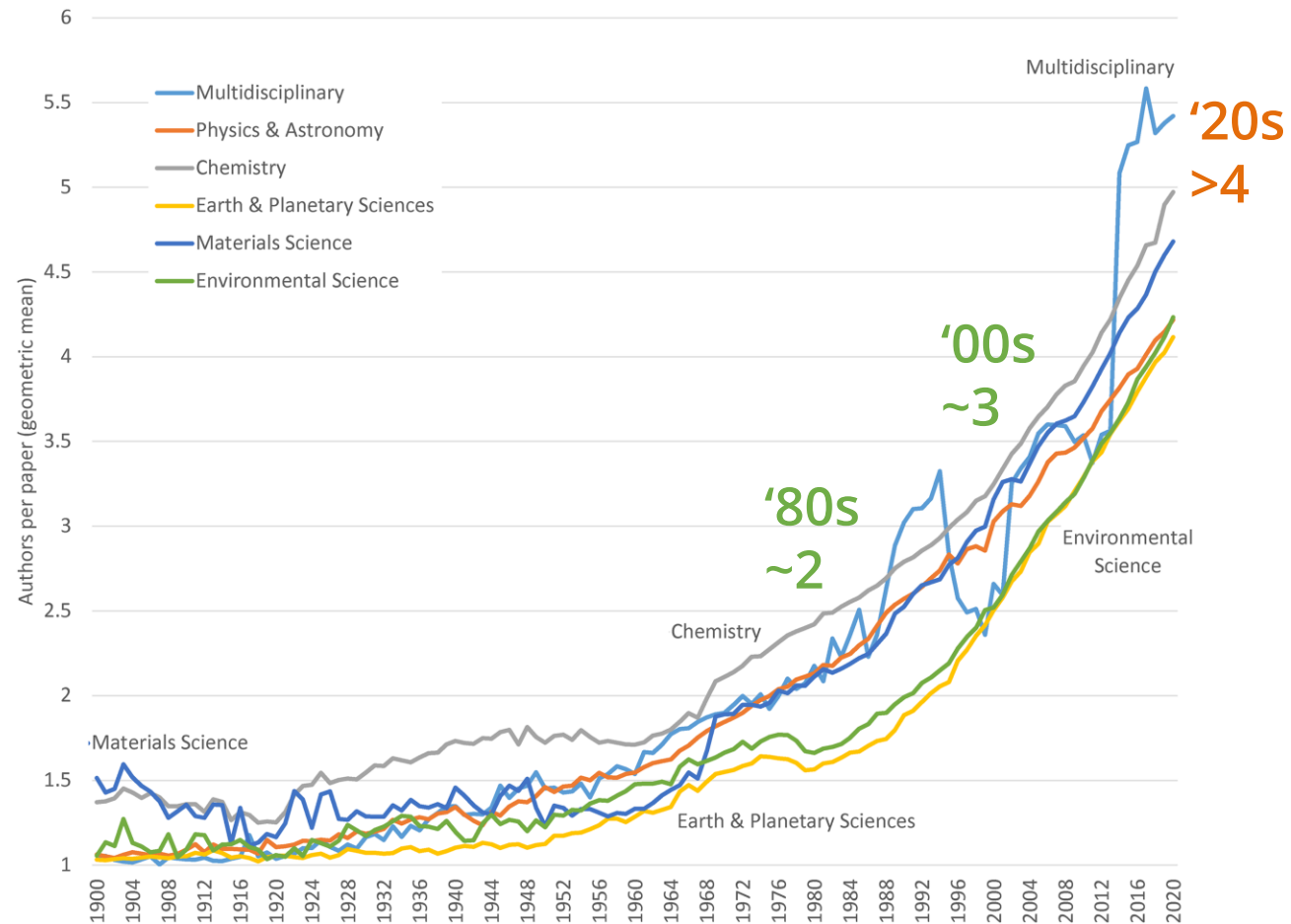


Past vs Present

# The current status

What do  
the data  
show?

- Increase in number of authors per publication  
(📖 Thelwall and Maflahi, 2022) **effects**



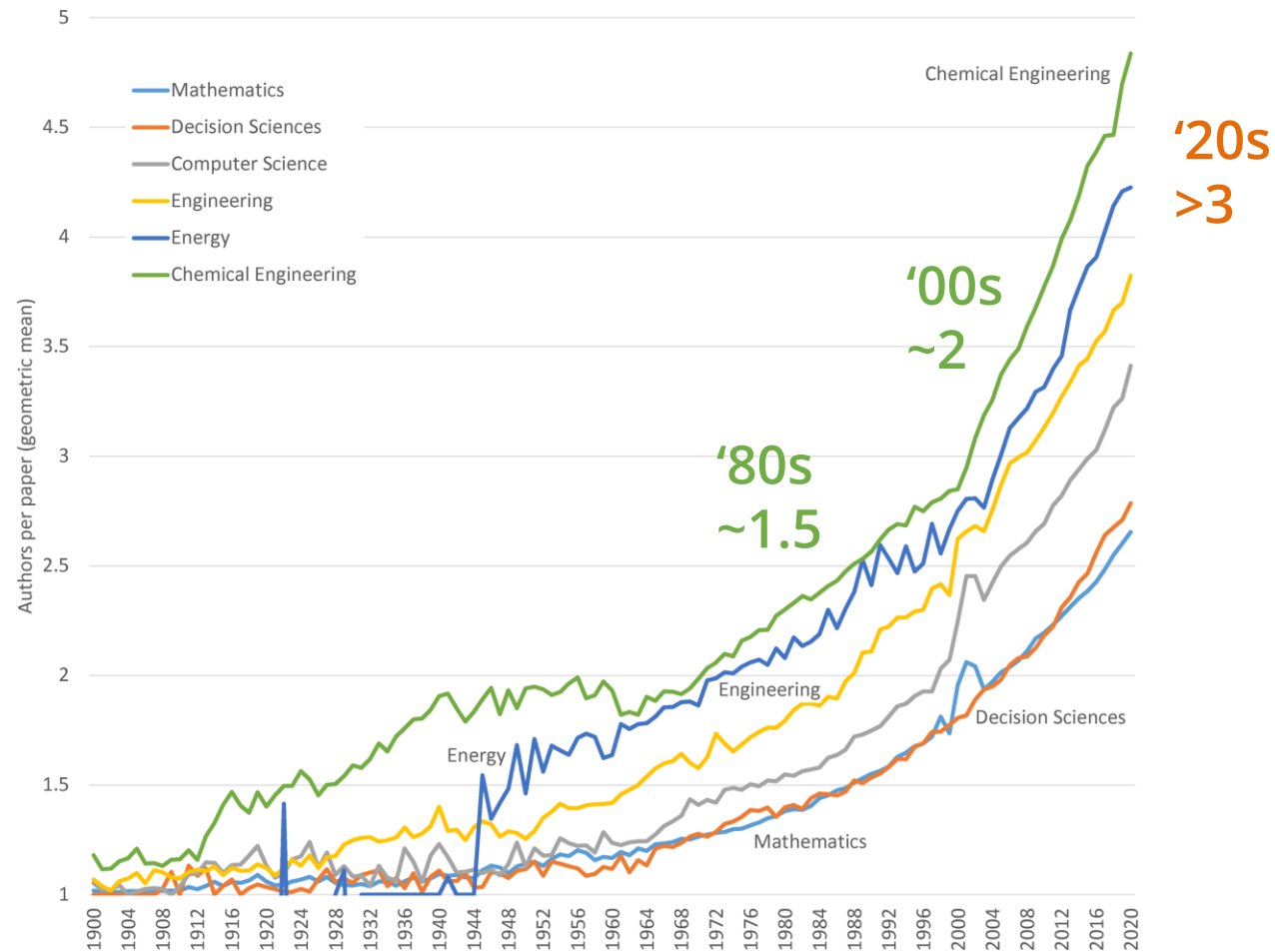
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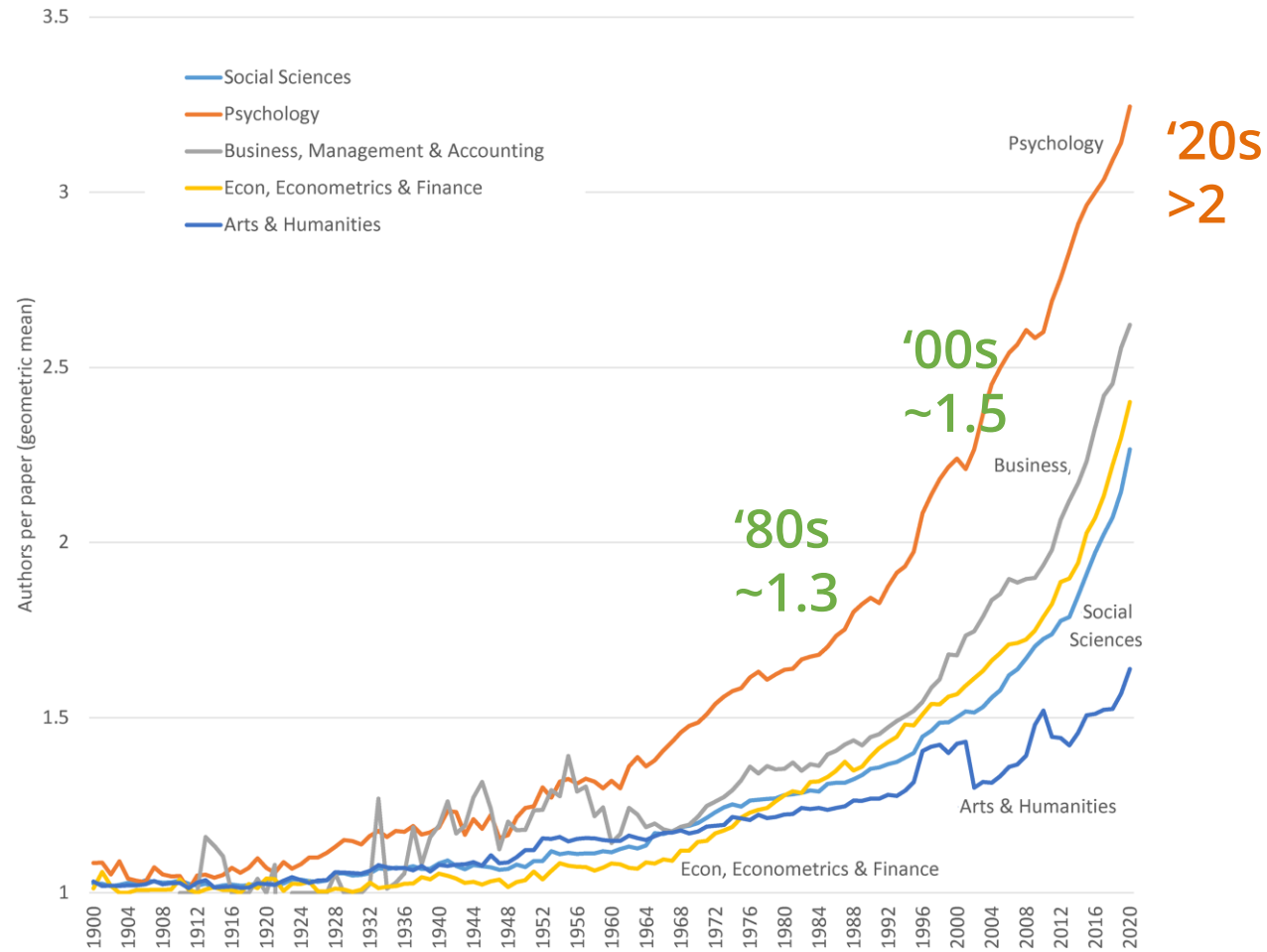


Past vs Present

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Past vs Present

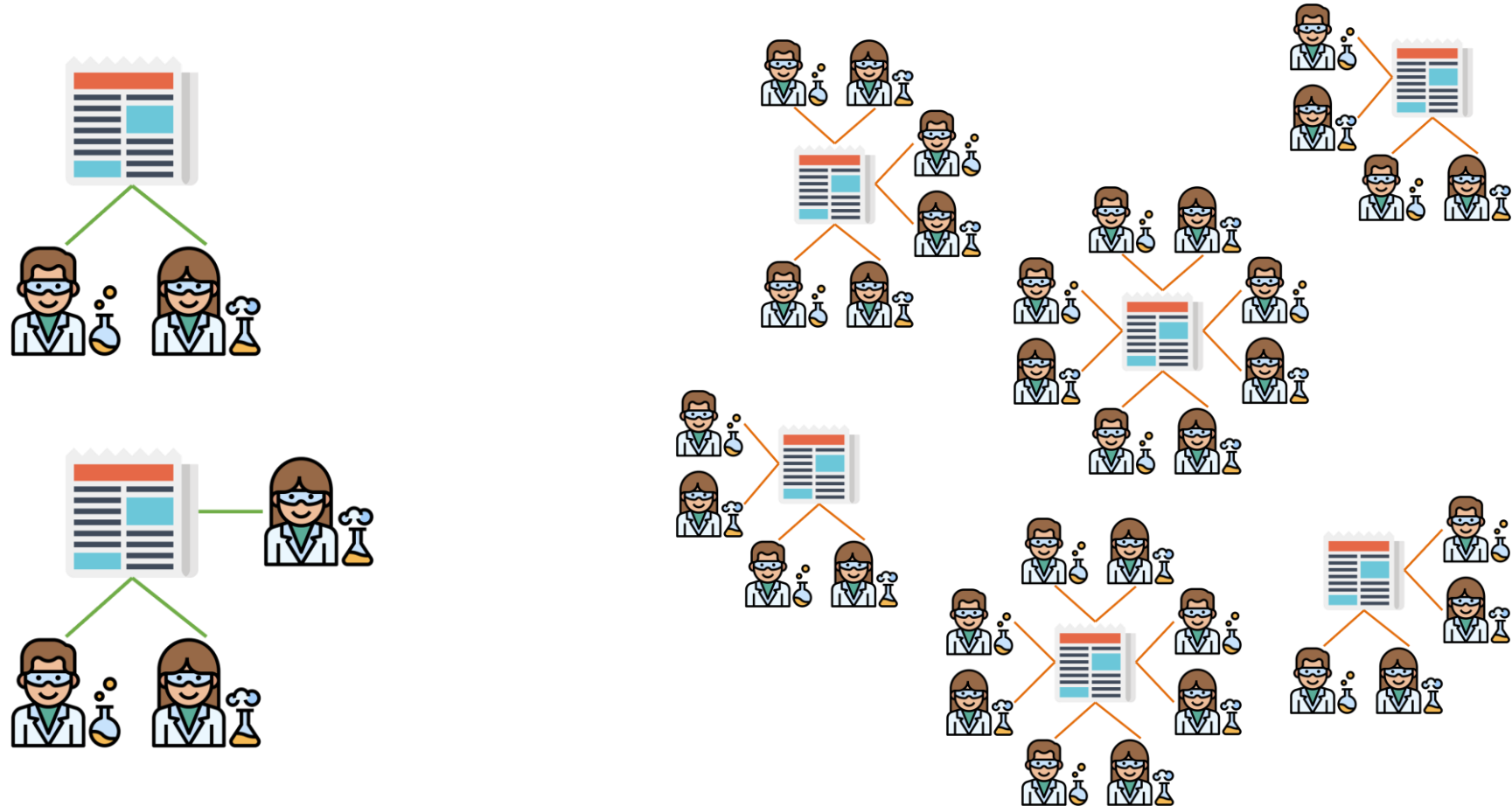
# The current status

What do the data show?

Past

VS

Present



# The case for a %-based author-contribution system

- **Currently**

- single-authored paper

- double-authored paper

- multi-authored paper

## Contribution to the field based on numbers/metrics





# The case for a %-based author-contribution system

- The proposal

*Co-authors of a paper will have to declare  
a percentage-based author-contribution list  
totaling to 100%*

*This percentage will represent each author's contribution to their  
field through the specific paper and can be associated with whichever  
number/metric (journal impact, citation count, or other)*

# The case for a %-based author-contribution system

- From this...

- single-authored paper

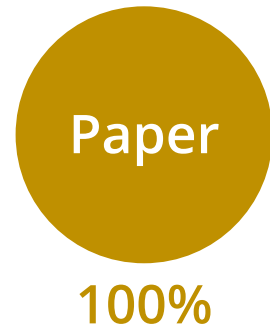
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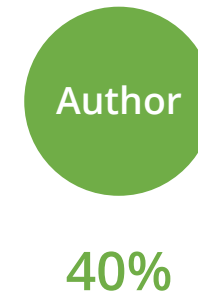
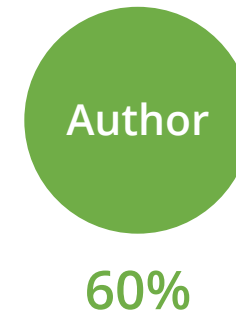
- To this!

- single-authored paper

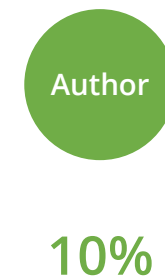
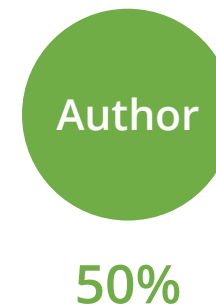
## Contribution to the field based on numbers/metrics



- double-authored paper



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# The case for a %-based author-contribution system

- Example 1

*Contribution impact based on Citation Count & H-index*

Paper No.	Author Contrib. %	Citation Count (papers)	Citation Count (author)
	[1]	[2]	[3] = [1]* [2]
1	100%	5	5
2	50%	4	2
3	50%	4	2
4	25%	4	1
5	10%	10	1
Sums		27	11
H-index		4	2

How would this change things?



# The case for a %-based author-contribution system

- Example 2

*Contribution impact based on Journal Impact*

Paper No.	Author Contrib. %	Citation Count (papers)	Citation Count (author)	Journal Impact Metric	Contrib. to the field (papers)	Contrib. to the field (author)
	[1]	[2]	[3] = [1]* [2]	[4]	[5] = [4]	[6] = [1]*[4]
1	100%	5	5	3	3	3.0
2	50%	4	2	2	2	1.0
3	50%	4	2	2	2	1.0
4	25%	4	1	2	2	0.5
5	10%	10	1	4	4	0.4
Sums		27	11		13	5.9
H-index		4	2			

How would this change things?

# The case for a %-based author-contribution system

- Example 3

*Contribution impact based on Journal Impact \* Citation Count*

Paper No.	Author Contrib. %	Citation Count (papers)	Citation Count (author)	Journal Impact Metric	Contrib. to the field (papers)	Contrib. to the field (author)
	[1]	[2]	[3] = [1]* [2]	[4]	[5] = [2]*[4]	[6] = [3]*[4]
1	100%	5	5	3	15	15
2	50%	4	2	2	8	4
3	50%	4	2	2	8	4
4	25%	4	1	2	8	2
5	10%	10	1	4	40	4
Sums		27	11		79	29
H-index		4	2			

How would this change things?



# The case for a %-based author-contribution system

## New System Pros

**Rational & Fair**

**Promotes RI & Hurts bad practices**

**Easy to implement**

- easily expanded to all metrics
- seamlessly integrated to all scientific databases

**Intact paper's contribution to the field**

- authors' profiles with both papers' & authors' contributions



**...But we should always strive to  
improve  
the current one**

**A perfect system  
might never exist...**

# ***Thank you for your attention!***

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