Keith Webster Dean of University Libraries and Director of Emerging and Integrative Media Initiatives

# **Carnegie Mellon University**

# NOVEMBER 6, 2020

# Charleston Conference "Lively Discussion"

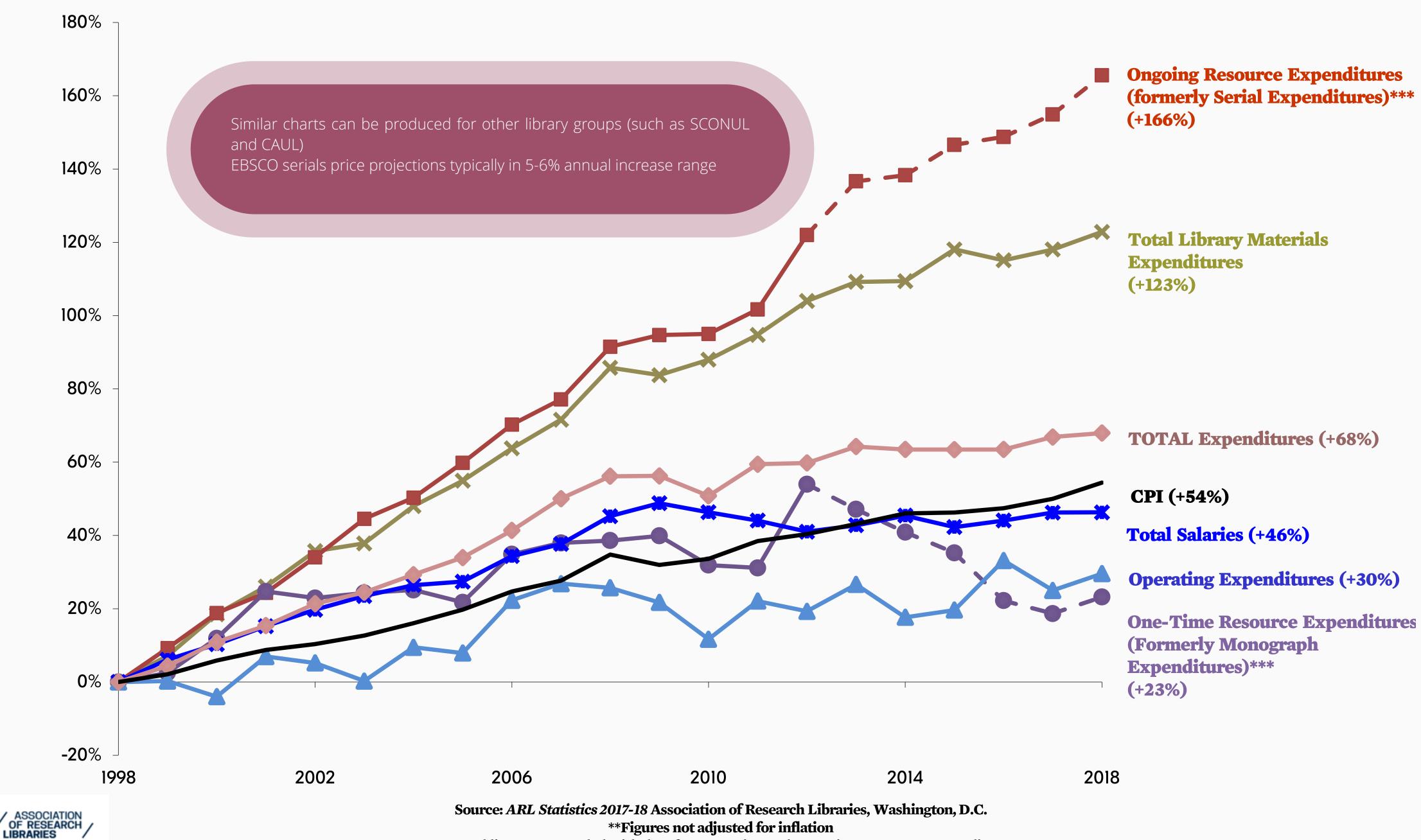




Only librarians, on the whole, complain about the Big Deal, since their researchers are mostly not aware of costs and cost increases. And librarians have limited power. They also have no strong track record when it comes to negotiating, only in rare cases employing professional negotiators, it seems. That is their weakness, and the publishers' strength.

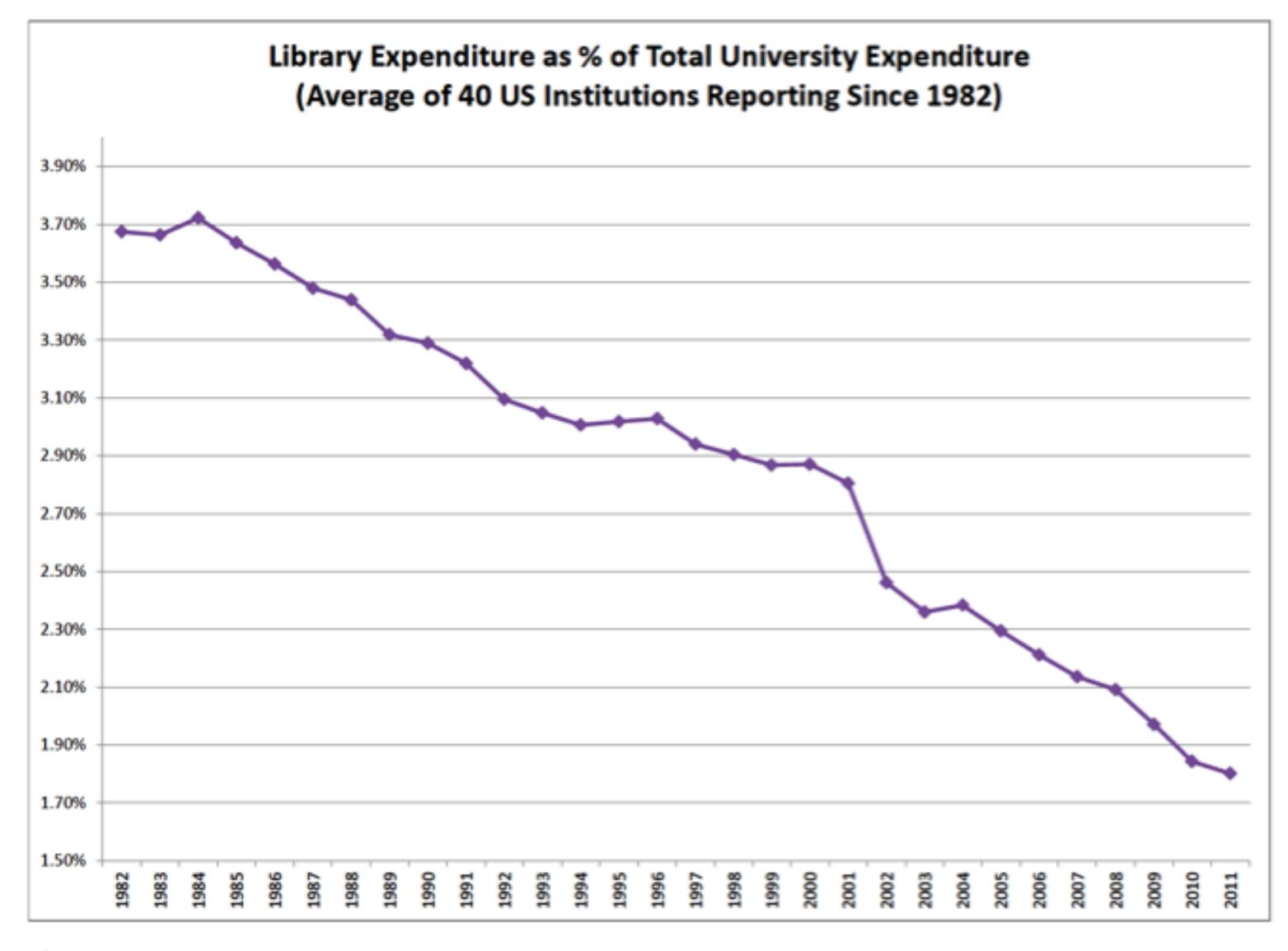
Jan Velterop, quoted in Reed Elsevier NV: Feedback from Meeting with Jan Velterop, FLASH NOTE, February 6, 2012, published by Cheuvreux Credit Agricole Group.

# Expenditure Trends in ARL Libraries 1998-2018

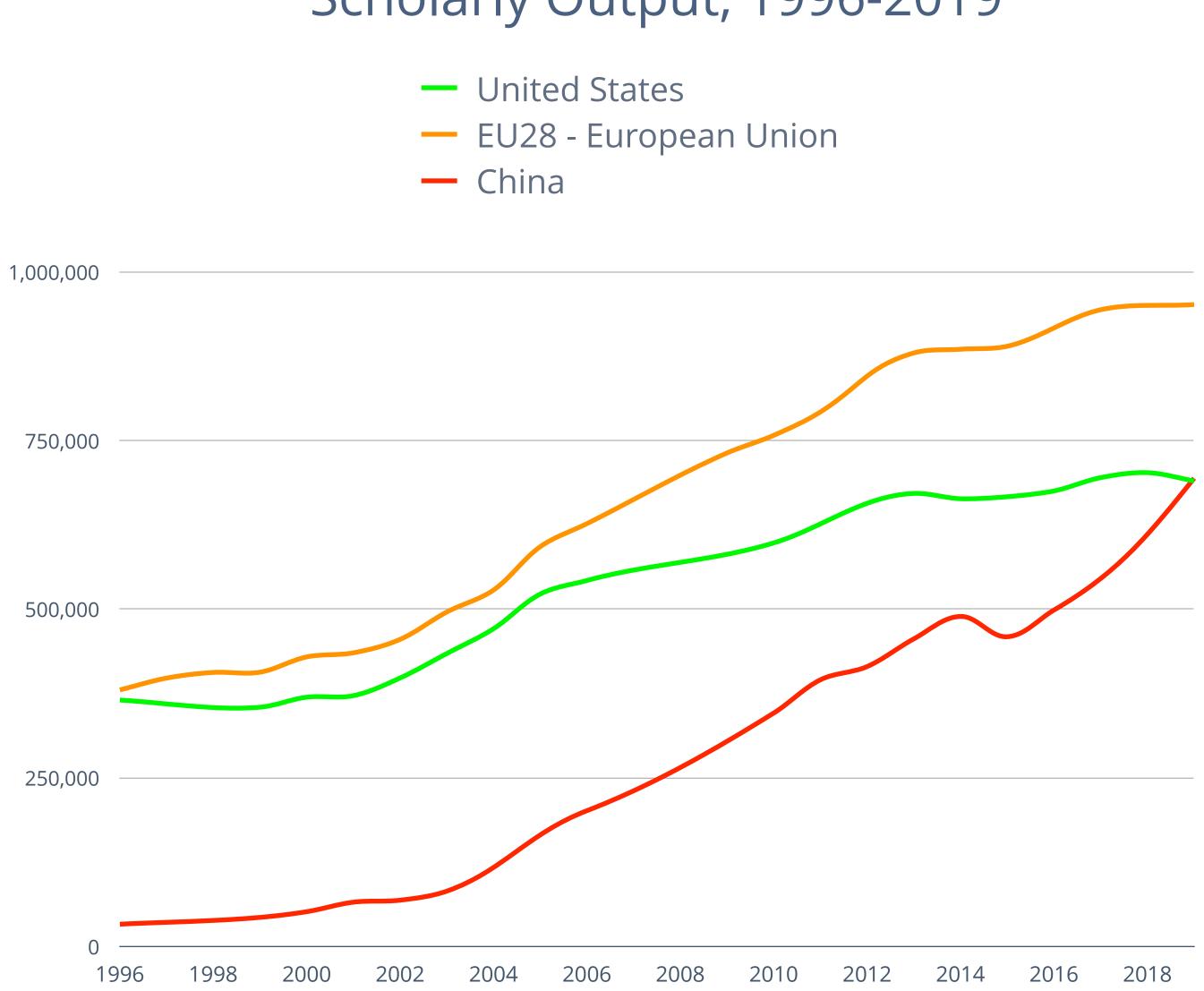


\*\*\*Trend line was extended with data from Ongoing and One-Time Resource Expenditures

# Library budgets under pressure

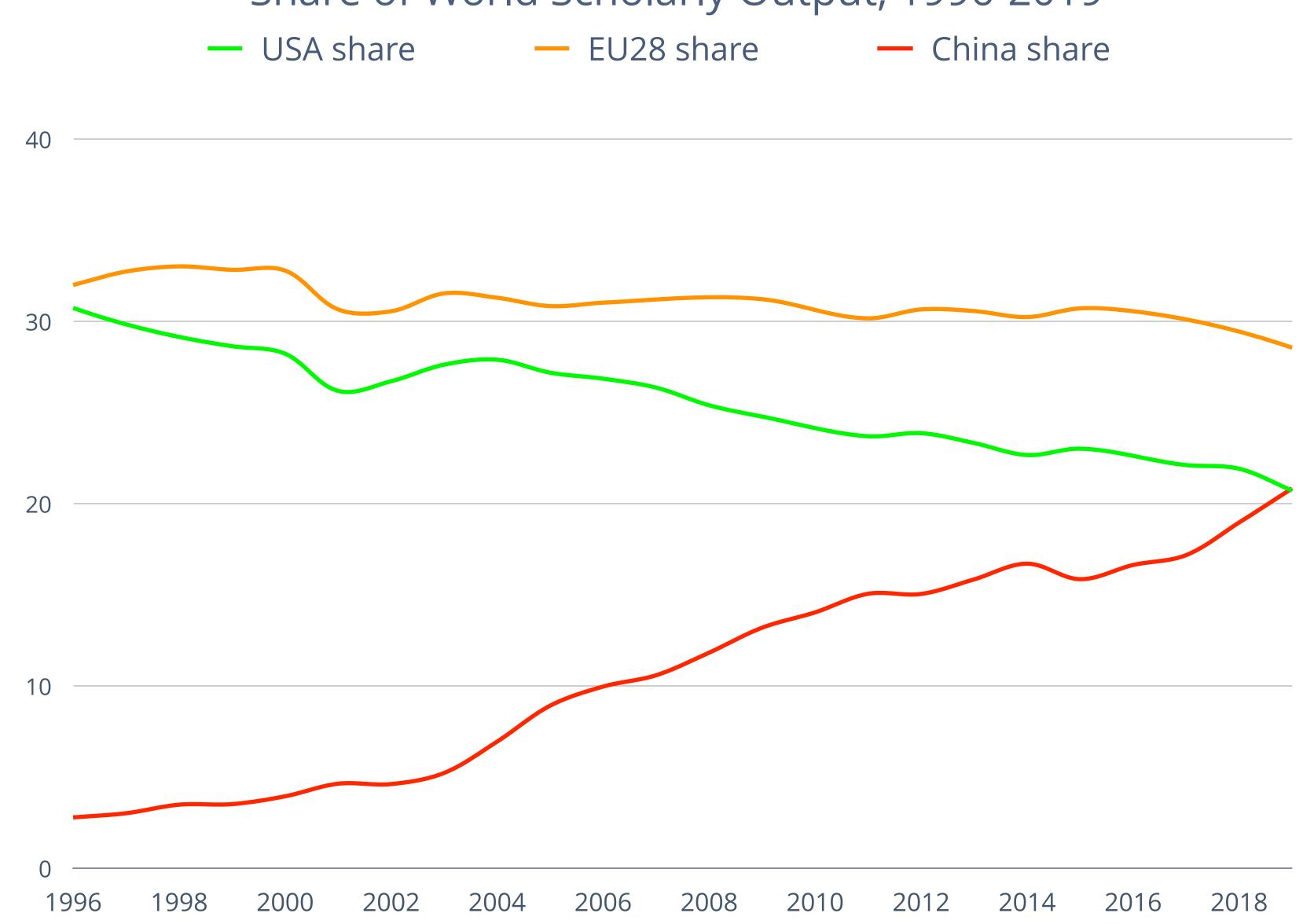






# Scholarly Output, 1996-2019





# Share of World Scholarly Output, 1996-2019



# Global Marketplace for Journals

Publishers sell in markets around the world. Pricing varies according to local markets, journal format, initiatives such as Research4Life. Forex exposure can impact both publishers and libraries. The role of (quasi-)government agencies can also be impactful.

N America

.......

......

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

....

...............

..............

..............

......

. . . . . . . .

.......

....

...

......

....

...

...

....

...........

....

....

....

........

....

........

......

.........

. . . . . . . . . . . . . . .............

.............

........

.......

.......

.......

......

.....

....

...

....

.....

....

....

....

..........

. . . . . . . . . . .

. . . . . . . .

.....

....

....

..........

........

............. ......

.....

.....

...

.........

......

......

Asia

Europe

..........

......

. . . . . . . . . . . . . .

..........

..........

...

••

..........

........

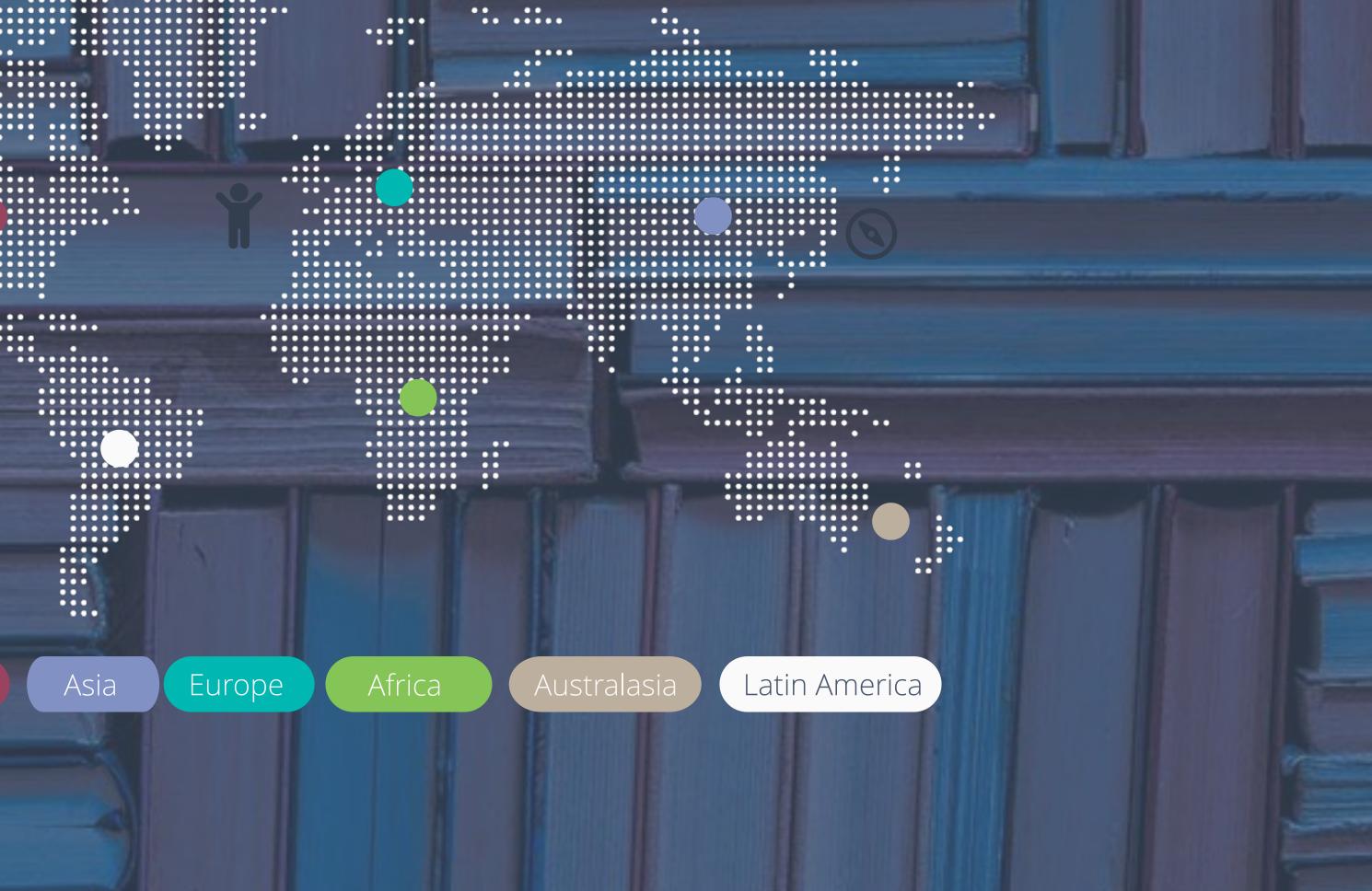
......

....

....

••

. . . . . . . . . . . . . . . . . .





# What are your priorities?



# Price

Do you want to reduce spend?

Value Do you want to maximize ROI?

### Arriving at a new contract



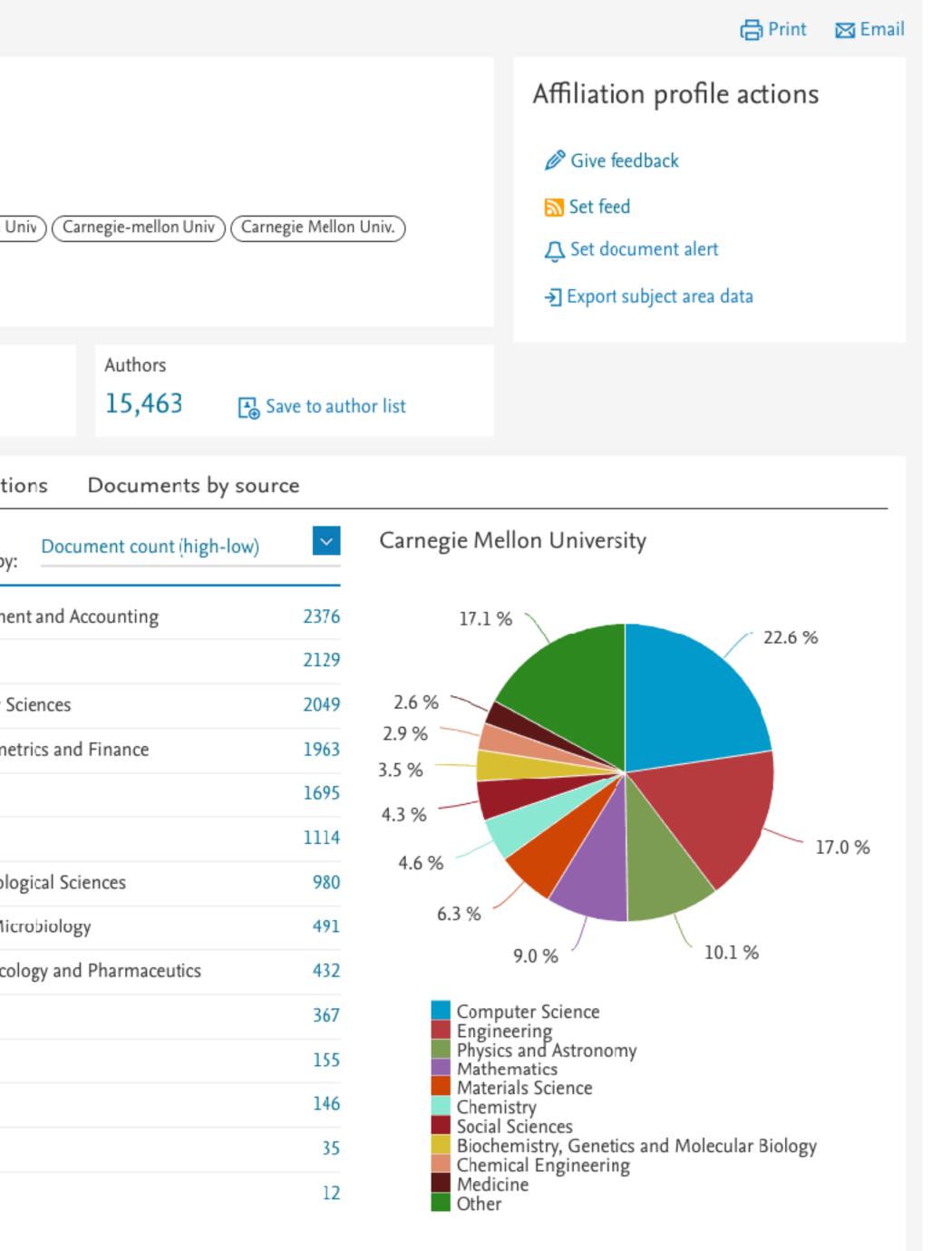


## Readership

Do you want to maximize access to content?

### Carnegie Mellon University

5000 Forbes Avenue, Pittsburgh PA, United States Affiliation ID: 60027950 Other name formats: Carnegie Mellon	University	Carnegie-mellon L	Iniversity (	Carnegie Mellon U
Documents, whole institution <b>95,193</b>	0	Documents, af <mark>88,632</mark>	filiation on	ıly
Documents by subject area	Affiliation	hierarchy	Collabo	rating affiliatio
				Sort by:
Computer Science		3523	4 Busi	ness, Manageme
Engineering		2648	3 Neu	roscience
Physics and Astronomy		1565	2 Earth	h and Planetary S
Mathematics		1404	3 Econ	nomics, Econome
Materials Science		981	4 Ener	ЗÀ
Chemistry		718	4 Mult	tidisciplinary
Social Sciences		667	8 Agrio	cultural and Biolo
Biochemistry, Genetics and Molecul	lar Biology	541	9 Imm	unology and Mic
Chemical Engineering		453	9 Phar	macology, Toxico
Medicine		400	1 Heal	th Professions
Arts and Humanities		369	2 Nurs	sing
Psychology		329	1 Und	efined
Environmental Science		301	6 Vete	rinary
Decision Sciences		258	5 Dent	tistry

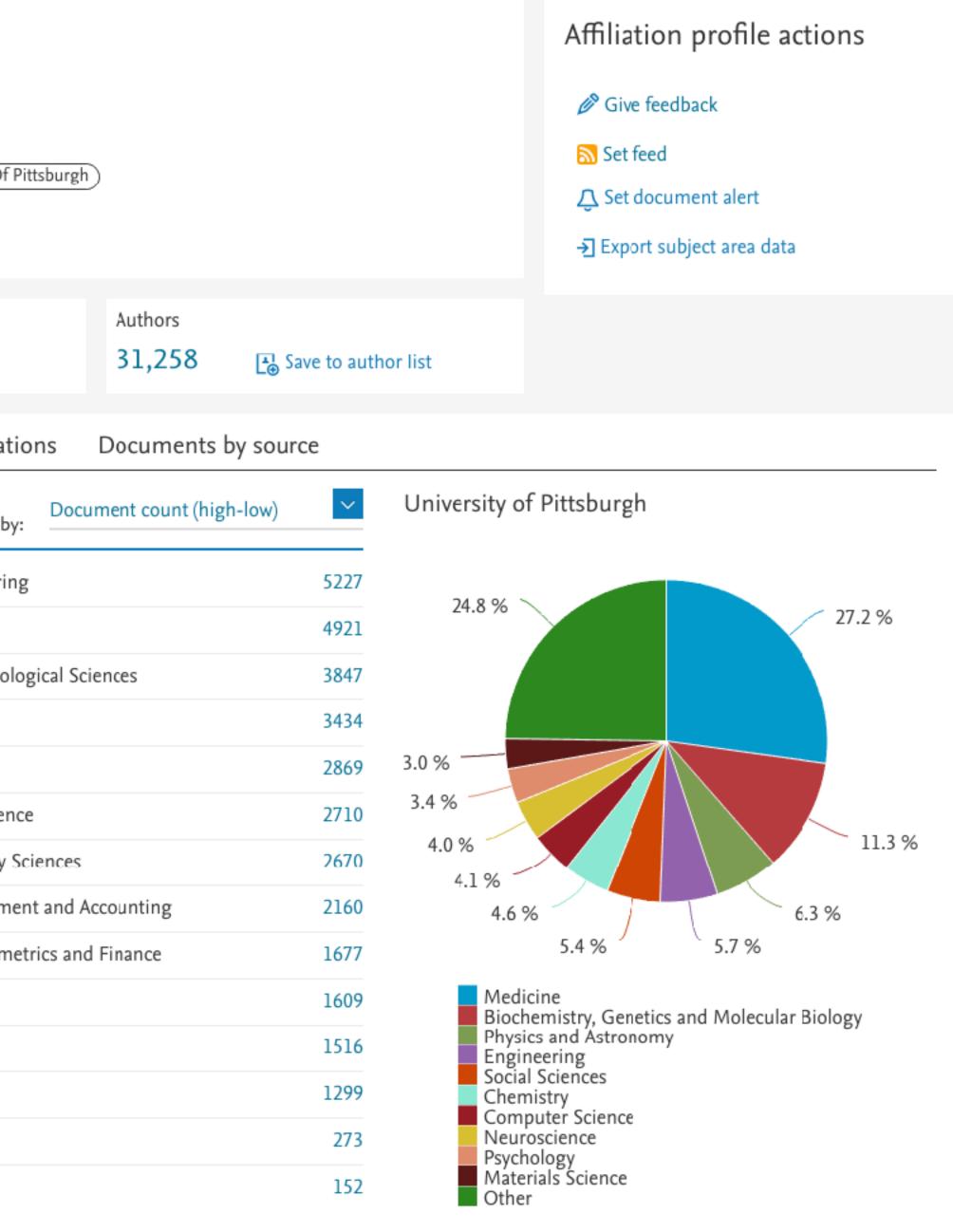


### University of Pittsburgh

4200 Fifth Avenue, Pittsburgh PA, United States Affiliation ID: 60015543 Other name formats: (University Of Pittsburgh) (Univ Of Pittsburgh) (Univ. Pittsburgh) (Univ. Of Pittsburgh)

Documents, whole institution 213,829	0	Documents, a <b>147,210</b>	ffiliation only	
Documents by subject area	Affiliation	hierarchy	Collaborating affili	ati
			Sort	: Ьу
Medicine		6449	96 Chemical Enginee	rin
Biochemistry, Genetics and Moleo	cular Biology	2685	51 Nursing	
Physics and Astronomy		1497	77 Agricultural and B	iol
Engineering		1357	71 Health Profession	S
Social Sciences		1285	59 Multidisciplinary	
Chemistry		1095	50 Environmental Sci	en
Computer Science		979	98 Earth and Planeta	ry S
Neuroscience		945	57 Business, Manage	me
Psychology		810	02 Economics, Econo	m
Materials Science		711	18 Dentistry	
Mathematics		687	76 Decision Sciences	
Arts and Humanities		626	67 Energy	
Pharmacology, Toxicology and Pha	armaceutics	586	64 Veterinary	
Immunology and Microbiology		526	55 Undefined	





# CMU open access agreements



### **ELSEVIER**

First institutional agreement for Elsevier - for all CMU corresponding authors



### ACM

Agreement via ACM Open aims to move all journals to OA

# **1 JAN 2020**

# **1 JAN 2020**



# Preparing to negotiate

\$



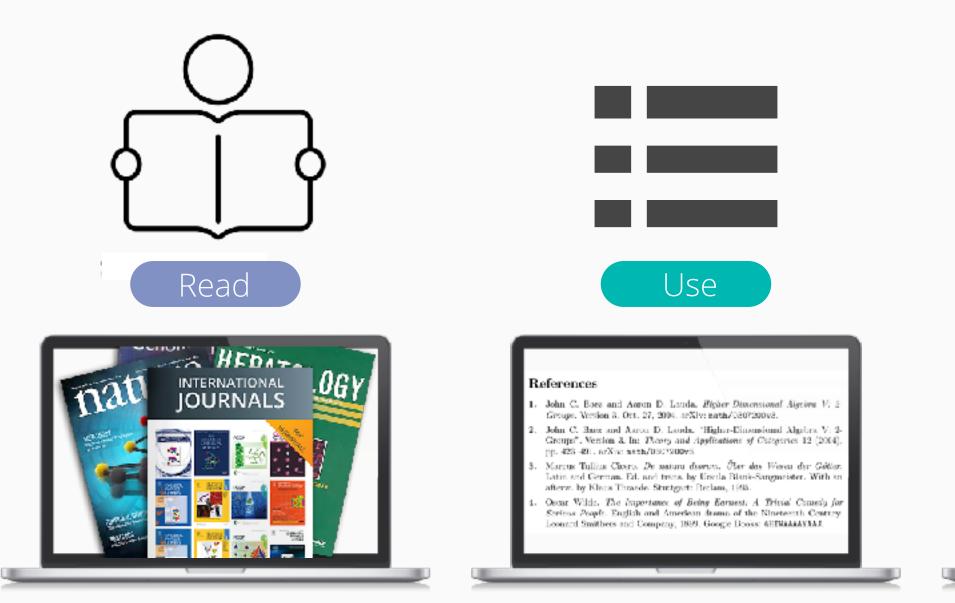
# A lot of this sits outside the library

Publisher's market environment

- Publishers' statements (eg SEC filings)
- Your current licenses
- Your university's interactions with publisher's content
- Other flow of funds to publisher
- Other direct/indirect relations with publisher

2

# Our relations with scholarly content



What are our community members reading? How frequently? What's being ignored? What can't they access (turnaways)?

work?

There are three things that are (or should be) countable



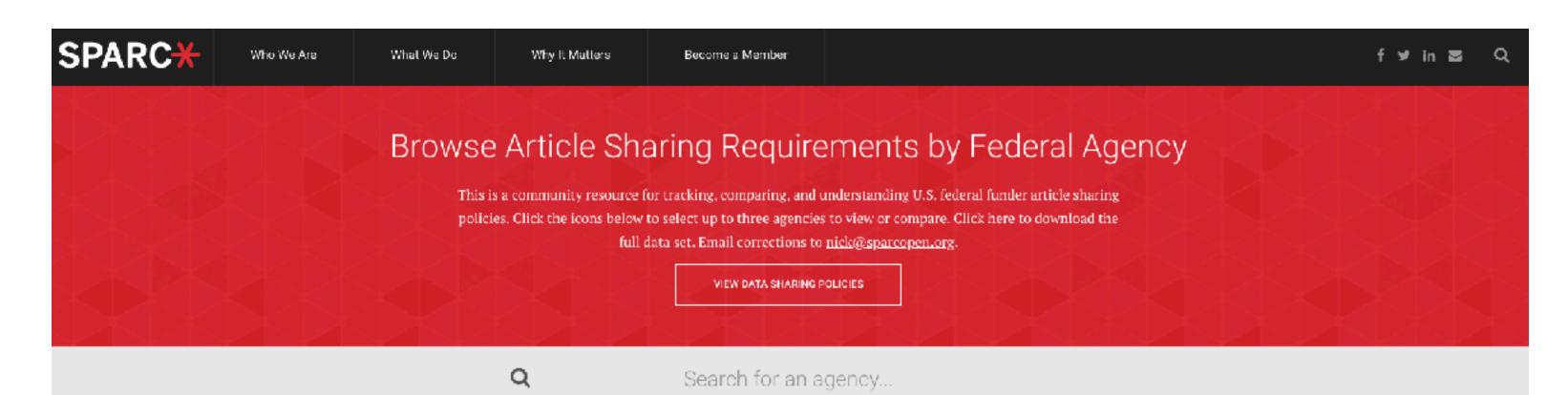




What's being cited by our community members in their

Are things being cited to which we don't have access?

Where are our community members placing their articles/ papers? Are they publishing in journals to which we don't have access? What's their open access practice? Who's funding their research (and any OA mandate)? How is their work being cited?





Browse by Policymaker Type 🔺 Up a level Export Export as EP3 XML 🕄 Atom Number of items: 86. Academy of Finland Agence National de la recherche (ANRI) Agence National de la recherche (ANR) Humanities & Social Sciences Branch Arts & Humanities Research Council (AHRC) Australian Research Council Austrian Science Fund (EWE) Autism Speaks Belgian Science Policy Office (BELSPO) Bill & Melinda Gates Foundation Biotechnology & Biological Sciences Research Council (BBSRC) Brazil House of Representatives Breast Cancer Campaign CGIAR Chief Scientist Office (Scottish Covernment Health Directorates) (CSO) Congress of the Republic of Peru Council of Scientific & Industrial Research Danish Council for Independent Research (DEE), the Danish Council for Strategic Research, the Danish National Research Foundations, the Danish Advanced Technology Foundation, and the Danish Council for Technology and Innovation Danish Ministry of Science, Technology & Innovation Department of Biotechnology and Department of Science & Technology, Ministry of Science & Technology Department of Health UK (DoH) Diabetes UK EUR-OCEANS Consortium Economic & Social Research Council (ESRC) Engineering & Physical Sciences Research Council (EPSRC)



Carnegie Research C	Mellon Uni	X				Save / Export	Workflow Support	💽 Keith We
		negie Mellon urgh, United States	University				ANALYTICAL VIEWS	
							RESEARCH CATEGORIES	
Publicati		Datasets	Grants	Patents	Clinical Trials	Policy Documents	08 Information and Computing Sciences	20,
71,80	3	1,133	6,021	3,264	55	0	09 Engineering	13,
			Funding amount				0801 Artificial Intelligence and Image Proce	essing 11,
			USD 2.7 B				02 Physical Sciences	8,
							01 Mathematical Sciences	7,
PUBLIC 71,803	ATIONS	DATASETS 1,133		ATENTS CLIN 264 55	UCAL TRIALS P	OLICY DOCUMENTS		
				~	Show abstract Sort	by: Publication Date ~	Citations Citations (Mea	an)
Title, Auth	or(s), Biblio	ographic reference -	About the metrics				2.5 M 34.62	
Single-c	ell lineag	e tracing by inte	grating CRISPR-Ca	s9 mutations wi	th transcriptomic d	lata	4,000	
Hamim Z	afar, Chieh L	₋in, Ziv Bar-Joseph					3,000	
2020, Nat	ure Commu	inications - Article						
Recent st	udies comb	ine two novel techn	ologies, single-cell RN/	A-sequencing and C	RISPR-Cas9 barcode ec	liting for elucidating	2,000	•
developm	ental lineag	jes at the whole org	anism level. While thes	se studies provid r	nore		1,000	
Citations	1 Altm	ietric 39 🔎 Vic	w PDF <b>≡</b> + Add to Libr	ary			2011 2012 2013 2014 2015 2016 2	2017 2018 2019 202
							<ul> <li>Publications (total)</li> </ul>	
Modula	ealf-ace	embly of damm	a-modified nentide	nucleic acide in	organic solvent mi	ivtures		
			u, Rebecca E. Taylor	indefeie acids in	lorganic solvent m	ixtures .		
		inications - Article	u, Rebecca E. Taylor				OPEN ACCESS	
-			nanometer precision i	in self-assembly for	fields including biophys	ica diagnostica		
			tion. However, structu		- · · ·	nos, alagnostico,	Closed	47,
Altmetric	61 🙏	/iew PDF = Add	to Library				All OA	24
			lo clotary				Green, Submitted	10,
							Bronze	5,
Structur	al distort	ion and electron	redistribution in d	ual-emitting gold	d nanoclusters		Green, Published	2,
Qi Li, Don	gming Zhou	ı, Jinsong Chai, Woo	ong Young So, Tong Ca	ii, Mingxing Li, Linda	A. Peteanu, Ou Chen, N	lircea Cotlet, X. Wend		
2020, Nat	ure Commu	inications - Article					( RESEARCHERS	
	-		te process is critical fo we report the emerge		f luminescent material: e	s with controllable		
Altmetric	6 🔏 (	/iew PDF =+ Add	to Library				Manfred Paulini Carnegie Mellon University, United States	1,
							Arie Bodek University of Rochester, United States	1,
The imp	act of ag	ency on time an	d risk preferences				Andrew Ivanov	1,
Ayelet Gn	eezy, Alex Ir	mas, Ania Jaroszew	vicz				Kansas State University, United States	•,
2020, Nat	ure Commu	inications - Article					Ignacio Redondo	1,
			l role of agency-the siz		t-in the human experier	ice. We demonstrate	Centro de Investigaciones Energéticas, Medioambi Marta Felcini	ertales y Tecnológ 1,
							University College Dublin, Ireland	

Altmetric 3 View PDF =+ Add to Library

Dimensions

FAVORITES

FILTERS > GROUPS

- > PUBLICATION YEAR
- > RESEARCHER
- > FUNDER
- COUNTRY OF FUNDER
- RESEARCH ORGANIZATION

0	Carnegie Mellon University	71,803
0	University of Pittsburgh	3,875
0	Massachusetts Institute of Technology	2,720
0	Purdue University West Lafayette	2,353
0	The Ohio State University	2,112
0	University of Rochester	2,034
0	University of California, Los Angeles	1,976
0	University of Florida	1,956
0	University of Minnesota	1,939
Ο	Johns Hopkins University	1,931
0	National Laboratory of Frascati	1,881
	More	

### More

- LOCATION RESEARCH ORGANIZATION
- > RESEARCH CATEGORIES
- > PUBLICATION TYPE
- > SOURCE TITLE
- > PUBLISHER
- JOURNAL LIST
- > OPEN ACCESS

Dimensions	Q Carnegie Mellon University Research Organization ×		Save / Export Workflow	v Support	🕕 Keith We
	2020 OR 2019 OR 2018 OR 2017 OR 2016 OF Publication Year	2015 OR 2014 OR 2013 OR 2012 OR 2011 ×			
FILTERS FAVORITES	> ANALYTICAL VIEWS   PUBLICATIO	INS			
> GROUPS	RESEARCH CATEGORIES	Dublichere			
<ul><li>&gt; PUBLICATION YEAR</li><li>&gt; RESEARCHER</li></ul>	VERVIEW	Publishers related to your search Aggregated Timeline Heatmap			About indicators
> FUNDER	OPEN ACCESS	Aggregated mineline neatmap			
> COUNTRY OF FUNDER	() RESEARCHERS	Publications   Citations   Citations (Mean) Indicator			~
> RESEARCH ORGANIZATION		Mean   Change			
> LOCATION - RESEARCH ORGANIZATION	SOURCE TITLES				Export table
> RESEARCH CATEGORIES		Name	↓ Publications	Citations	Citations mean
> PUBLICATION TYPE	I FUNDERS	Institute of Electrical and Electronics Engineers (IEEE)	5,362	83,798	15.63
> SOURCE TITLE		Springer Nature	5,123	92,238	18.00
✓ PUBLISHER	RESEARCH ORGANIZATIONS	Elsevier	4,544	102,667	22.59
O Institute of Electrical and Electronics Er 5,362	<b>Q</b> PLACES	Association for Computing Machinery (ACM)	4,085	67,437	16.51
<ul> <li>Springer Nature 5,123</li> <li>Elsevier 4,544</li> </ul>	COMPARE	Wiley	1,328	22,944	17.28
O Association for Computing Machinery ( 4,085		American Chemical Society (ACS)	1,163	39,797	34.22
<ul> <li>Wiley 1,328</li> <li>American Chemical Society (ACS) 1,153</li> </ul>		American Physical Society (APS)	<b>1,08</b> 1	32,488	30.05
American Physical Society (APS) 1,081		Oxford University Press (OUP)	497	11,276	22.69
<ul> <li>Oxford University Press (OUP)</li> <li>SAGE Publications</li> <li>459</li> </ul>		SAGE Publications	469	10,110	21.56
Royal Society of Chemistry (RSC) 337		Royal Society of Chemistry (RSC)	337	8,607	25.54
Cambridge University Press (CUP) 335		Cambridge University Press (CUP)	335	1,887	5.63
> JOURNAL LIST		ASME International	305	1,835	6.02
> OPEN ACCESS		Taylor & Francis	305	2,369	7.77
		IOP Publishing	301	16,437	54.61

A	
Save / Fx	nort.
-,	

<b>M</b> Dimensione	Carnegie Mellon University Research Organization	Save / Export Workflow Support
Dimensions	2020 OR 2019 OR 2018 OR 2017 OR 2016 OR Fublication Year	2015 OR 2014 OR 2013 OR 2012 OR 2011 ×
FILTERS FAVORITES	> ANALYTICAL VIEWS   PUBLICATIO	NS
> GROUPS	RESEARCH CATEGORIES	Publishers
> FUBLICATION YEAR		related to your search About indicators
> RESEARCHER > FUNDER	OPEN ACCESS	Aggregated Timeline Heatmap
> COUNTRY OF FUNDER	RESEARCHERS	Publications
> RESEARCH CRGANIZATION		Chart Table
> LOCATION - RESEARCH ORGANIZATION	SOURCE TITLES	700
> RESEARCH CATEGORIES	PUBI SHERS	600
> FUBLICATION TYPE	FUNDERS	500
<ul> <li>&gt; SOURCE TITLE</li> <li>&gt; FUBLISHER</li> </ul>	RESEARCH ORGANIZATIONS	400
Institute of Electrical and Electronics Er 5,362	<b>PLACES</b>	300
Springer Nature5,123Elsevier4,544	COMPARE	200
<ul> <li>Association for Computing Machinery (4,085</li> <li>Wiley 1,328</li> </ul>		100
American Chemical Society (ACS) 1,163		
<ul> <li>American Physical Society (APS) 1,081</li> <li>Oxford University Press (OUP) 497</li> </ul>		2011       2012       2013       2014       2015       2016       2017       2018       2019       2020 <ul> <li>Association for Computing Machinery (ACM)</li> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul> <ul> <li>Institute of Electrical and Electronics Engineers (IEEE)</li> </ul>
<ul> <li>SAGE Publications</li> <li>Royal Society of Chemistry (RSC)</li> <li>337</li> </ul>		<ul> <li>Springer Nature</li> <li>Wiley</li> </ul>
<ul> <li>Cambridge University Press (CUP)</li> <li>335</li> </ul>		
More		Add publisher to chart
<ul><li>&gt; JOURNAL LIST</li><li>&gt; OPEN ACCESS</li></ul>		The visualization shows the number of published publications in each year for the selected publishers. The default entities are selected based on the activity in the last 10 years - you can modify the selection by removing or adding entities.

> RESEARCHER       Important of evention       Important of evention       Important of evention         > RESEARCH ORGANIZATION       Important of evention       Important of evention       Important of evention         > RESEARCH ORGANIZATION       Important of evention         > RESEARCH ORGANIZATION       Important of evention       Important of evention <td< th=""><th></th><th>Q Carnegie Mellon University Research Organization ×</th><th>Save / Export Workflow Support ① K</th><th>Keith We</th></td<>		Q Carnegie Mellon University Research Organization ×	Save / Export Workflow Support ① K	Keith We
> GROUPS         > PUBLICATION YEAR         > RESEARCHER         > RINDER         > COUNTRY OF FUNDER         > RESEARCH ORGANIZATION         > RESEARCH ORGANIZATION         > LOCATION - RESEARCH ORGANIZATION         > RESEARCH ORGANIZATION         > RESEARCH ORGANIZATION         > LOCATION - RESEARCH ORGANIZATION         > NUBLICATION TYPE         > SOURCE TITLE         > PUBLICATION TYPE         > SOURCE TITLE         > PUBLICATION TYPE         > MESEARCH ORGANIZATIONS         P INDERS         PLACES         P INDERS         PLACES         P	Dimensions	2020 OR 2019 OR 2018 OR 2017 OR 2016 OR 2015 OR 2014 OR 2013 Publication Year	<sup>R 2012</sup> OR 2011 ×	
> GROUPS         > PUBLICATION YEAR         > RESEARCHER         > RINDER         > RESEARCH ORGANIZATION         > RESEARCH CATEGORIES         > PUBLICATION TYPE         > SOJRCE TITLE         > PUBLICATION TYPE         > SOJRCE TITLE         > PUBLICATION TYPE         > SOJRCE TITLE         > PUBLICATION TYPE         > Envirence         > SOJRCE TITLE         > PUBLICATION TYPE         > Envirence         > SOJRCE TITLE         > Meticas Obernical Societin for Computing Machiner 40000         > Meticas Obernical Societin for Computing Machiner 40000         > Meticas Obernical Societin for Computing Machiner 40000         > Meticas Obernical So		N ANALYTICAL VIEWS   DUDUCATIONS		
> PUBLICATION YEAR       > PUBLICATION YEAR       > Publishers       > related lo your search       > related lo your search <t< td=""><td>EKS FAVORITES</td><td>J ANALYTICAL VIEWS   PUBLICATIONS</td><td></td><td></td></t<>	EKS FAVORITES	J ANALYTICAL VIEWS   PUBLICATIONS		
> PUBLICATION YEAR <ul> <li>&gt; RESEARCHER</li> <li>&gt; FUNDER</li> <li>&gt; COUNTRY OF FUNDER</li> <li>&gt; RESEARCH ORGANIZATION</li> <li>&gt; RESEARCH ORGANIZATION</li> <li>&gt; LOCATION - RESEARCH ORGANIZATION</li> <li>&gt; RESEARCH CATEGORIES</li> <li>&gt; PUBLICATION TYPE</li> <li>&gt; FUNDER</li> <li>&gt; SOURCE TITLE</li> <li>&gt; PUBLICATION TYPE</li> <li>&gt; PUBLICATION TYPE</li> <li>&gt; RESEARCH ORGANIZATIONS</li> <li>&gt; Institute of Electronic is 5,342</li> <li>&gt; Source TITLE</li> <li>&gt; PUBLICATION TYPE</li> <li>&gt; PUBLICATION Service</li> <li>&gt; PUBLICATION Service</li> <li>&gt; PUBLICATION SERVICE</li> <li>&gt; RESEARCH ORGANIZATIONS</li> <li>&gt; RESEARCH ORGANIZATIONS</li> <li>&gt; Maittute of Electric is 1007 208 444 99 208 22 11 22 105 208 208 208 20 11 22 105 208 208 20 11 22 105 208 208 20 11 22 105 208 208 208 208 208 208 208 208 208 208</li></ul>	GROUPS	RESEARCH CATEGORIES Publishers		
> RESEARCHER       Aggregated Timeline Heatmap         > FUNDER       Image: Country of FUNDER         > RESEARCH ORGANIZATION       Image: Country of FUNDER         > LOCATION - RESEARCH ORGANIZATION       Image: Country of FUNDER         > LOCATION - RESEARCH ORGANIZATION       Image: Country of FUNDER         > RESEARCH ORGANIZATION       Image: Country of FUNDER         > PUBLISHER       Image: FUNDERS         > PUBLISHER       Image: Funders         > Institute of Electrical and Electronics E \$3.62       PLACES         > PUBLISHER       Image: Funders         > Institute of Electrical and Electronics E \$3.63       PLACES         > Milery       133         > Elsevier       4,544         > Merican Chemical Society (ACS)       1,163         > Milery       133         > Milery       133<	PUBLICATION YEAR	related to your s	arch About ir	indicators
> FUNDER	RESEARCHER		Timeline Heatmap	
> COUNTRY OF FUNDER       Image: Research ers       Image: Research ers<	FUNDER			
> LOCATION - RESEARCH ORGANIZATION       Image: Source TITLES       0       -1       -179       >357       >535       >773       >         > PUBLICATION TYPE       Image: Source TITLE	COUNTRY OF FUNDER			~
> LOCATION - RESEARCH ORGANIZATION       0       > 1       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       > 10       20       > 10       20	RESEARCH ORGANIZATION		fault	Table
> PUBLICATION TYPE       Image: public	LOCATION - RESEARCH ORGANIZATION	SOURCE TITLES	0 > 1 > 179 > 357 > 535 > 713	> 891
> SOJRCE TITLE       Institute of Elect       1.07       233       44       59       288       2       10       25       105       233         > PUBLISHER       Institute of Electr       1.07       233       44       59       288       2       10       25       105       233       234       235	RESEARCH CATEGORIES	PUBLISHERS		≣
> SOJRCE TITLE       Institute of Elect       1.07       238       44       59       288       2       10       25       105       23         > PUBLISHER       Institute of Electr       1.07       238       44       59       288       2       10       25       105       23         > Institute of Electr       Institute of Electr       200       453       203       362       305       243       106       259       270       214         > Institute of Electr       Springer Nature       5123       Springer Nature       342       224       106       69       154       400       393       148       168       79         Association for Computing Machinery (4085)       F       COMPARF       American Chem       18       513       98       605       106       514       378       483       233       549         Wiley       1,328       American Chem       18       513       98       605       106       514       378       483       233       549         Wiley       1,328       American Chem       18       513       98       605       106       514       31       31       32		FUNDERS	Directorate for National Natur Directorate for United States, Directorate for Science and The Shation Reserved States Directorate for Science and The Shational Reserved States and The Science and The States and	ç.
PUBLISHER       Elsevier       2.0       4.53       3.03       3.62       3.05       2.43       1.96       2.59       2.70       2.14 <ul> <li>Institute of Electrical and Electronics E 5,362</li> <li>Springer Nature</li> <li>American Physical Society (APS)</li> <li>Springer Nature</li> <li>Springer Nature</li> <li>Springer Nature</li> <li>Springer Nature</li> <li>Springer Nature</li></ul>	SOURCE TITLE	RESEARCH ORGANIZATIONS Institute of Electr.	<b>1,071</b> 238 44 59 288 2 10 25 105 23	
Springer Nature5,123Association for C88459112247019182715Elsevier4,544Imerican PhysicAmerican Physic1851398605106514378483233549Association for Computing Machinery (4,085)Miley1,328American Chemical Society (ACS)1,1631,1116174Merican Physical Society (ACS)1,163For Markine Physical Society (APS)1,081For Markine Physical Society (APS)1,0811,0811,0811,0811,0811,081	PUBLISHER		200         453         303         362         305         243         196         259         270         214	
ContractionComparison	Institute of Electrical and Electronics E 5,362	PLACES Springer Nature	342         224         196         69         154         401         393         148         168         79	
C Association for Computing Machinery (4,085)American ChemiAmerican Chemi	Springer Nature 5,123	Association for C.	884         59         11         22         47         0         19         18         27         15	
Wiley1,328Wiley1,328Wiley3147179275301513273American Chemical Society (ACS)1,163Royal Society of827102216303388	Elsevier 4,544	COMPARE American Physic	18         513         98         605         106         514         378         483         233         549	
American Physical Society (APS)       1,081	Association for Computing Machinery ( 4,085	American Chemi	6 55 290 33 107 1 11 16 17 4	
O American Physical Society (APS) 1.081	Wiley 1,328	Wiley	31         47         179         27         53         0         15         13         27         3	
American Physical Society (APS) 1,081	American Chemical Society (ACS) 1,163	Royal Society of	8 27 102 21 63 0 3 3 8 8	
Oxford University 32 5 66 31 5 60 6 9 25 2	American Physical Society (APS) 1,081	Oxford University	32 5 66 31 5 60 6 9 25 2	
Oxford University Press (OUP) 497 497 497 497	Oxford University Press (OUP) 497	IOP Publishing	6 5 18 12 18 30 9 3 3 0	
SAGE Publications         469           Copernicus Publi         0         2         7         6         3         0         24         2         41         0	SAGE Publications 469	Copernicus Publi	0 2 7 6 3 0 24 2 41 0	
AIP Publishing       5       3       34       8       22       0       0       4       2		AIP Publishing	5 3 34 8 22 0 0 0 4 2	
Cambridge University Press (CUP)       335         Fublic Library of       25       4       11       2       6       0       1       5       6       1	Cambridge University Press (CUP) 335	Fublic Library of	25 4 11 2 6 0 1 5 6 1	
More         12         3         24         9         16         0         5         1         7         0	More	Proceedings of t	12 3 24 9 16 0 5 1 7 0	
JOURNALLIST       33       5       4       1       4       0       1       5       8       2	JOURNAL LIST		33 5 4 1 4 0 1 5 8 2	
Taylor & Francis 11 P 11 4 P 0 2 1 4 2		Taylor & Francis		
> OPEN ACCESS     American Associ     2     1     13     7     10     1     4     0     3     1     4     3	JPEN AUGESS	American Associ	2 1 13 7 10 1 4 0 3 1	

Image: Dimensions       2020 OR 2019 CR 2018 OR 2017 OR 2016 OR 2015 OR 2014 OR 2013 OR 2012 OR 2011 ×         FILTERS       FAVOR TES       > ANALYTICAL VIEWS       PUBLICATIONS         > GROUPS       PUBLICATION YEAR       PRESEARCH CATEGORIES       Publishers related to your search       Publishers         Abor       Abor       Abor       Abor       Abor	tindicators
> GROUPS       Image: Research categories       Publishers         > PUBLICATION YEAR       related to your search       Abo	indicators
PUBLICATION YEAR     PublicATION YEAR     Abo	indicators
> PUBLICATION YEAR Abo	indicators
OVEDVIEW	
Aggregated Timeline Heatmap	
> FUNDER OPEN ACCESS	
COUNTRY OF FUNDER RESEARCHERS Publications	~
	Table
> LOCATION - RESEARCH ORGANIZATION SOURCE TITLES	> 891
> RESEARCH CATEGORIES Elsevier / National Natural Science Foundation of China (NSFC) Publications	≡
PUBLICATION TYPE     Image: Funder State	,5 <sup>°</sup>
7 SUURCE TITLE	
PUBLISHER       RESEARCH ORGANIZATIONS       I       Show publications       88       2       10       25       105       23         PUBLISHER       200       453       303       362       305       243       196       259       210       214	
O Institute of Electronics E 5,362 ♀ PLACES ♀ PLACES 69 154 401 393 148 168 79	
O Springer Nature         5,123           Association for C         884         59         11         22         47         0         19         18         27         15	
O Elsevier       4,544       COMPARE       American Physic       18       513       98       605       105       514       378       483       233       549	
American Chemi 6 55 290 33 107 1 11 16 17 4	
Wiley       1,328       Wiley       31       47       179       27       53       0       15       13       27       3	
American Chemical Society (ACS)       1,163         Royal Society of       8       27       102       21       63       0       3       3       8       8	
Oxford University 32 5 66 31 5 60 6 9 25 2	
Oxford University Press (OUP) 497 497 6 6 18 12 18 30 9 3 3 0	
O SAGE Publications       469         Copernicus Publi       0       2       7       6       3       0       24       2       41       0	
O Royal Society of Chemistry (RSC)       337         AIP Publishing       5       3       34       8       22       0       0       4       2	
Cambridge University Press (CUP)       335         Public Library of       25       4       11       2       6       0       1       5       6       1	
More         Proceedings of t         12         3         24         9         16         0         5         1         7         0	
> JOURNAL LIST       33       5       4       1       4       0       1       5       8       2	
Taylor & Francis 11 0 11 4 0 0 2 1 4 2	
> OPEN ACCESS     American Associ     2     1     11     4     0     3     1     4     3       American Associ     2     1     13     7     10     1     4     0     3     1	



a

Carnegie Mellon University  $\chi$ Research Organization

2020 OR 2019 OR 2018 OR 2017 OR 2016 OR 2015 OR 2014 OR 2013 OR 2012 OR 2011 🗙 Publication Year

National Natural Science Found... imesFunder

 $\frac{\mathsf{Elsevier}}{\mathsf{Publisher}} imes$ 

### FILTERS

### FAVORITES

- > GROUPS
- > PUBLICATION YEAR
- > RESEARCHER
- > FUNDER
- > COUNTRY OF FUNDER
- > RESEARCH ORGANIZATION
- LOCATION RESEARCH ORGANIZATION
- RESEARCH CATEGORIES
- > PUBLICATION TYPE
- SOURCE TITLE
- ✓ PUBLISHER
- Elsevier
- > JOURNAL LIST
- ✓ OPEN ACCESS
- 260
- O Pure Gold 232
- Closed 193
- Green, Submitted 11
- Bronze
- Hybrid
- Green, Accepted
- Green, Published

PUBLICATIONS	
453	

DATASETS selected filter not applicable

GRANTS applicable

selected filter not

Title, Author(s), Bibliographic reference - About the metrics

### Dechlorination and Defluorination Capability of Sulfidized Nanoscale Zerovalent Iron with Suppressed Water Reactivity

Zhen Cao, Jiang Xu, Hao Li, Tianyi Ma, Liping Lou, Graeme Henkelman, Xinhua Xu 2020, Chemical Engineering Journal - Article

Recently, sulfidation of nanoscale zerovalent iron (S-nZVI) has become a potential remediation technology. However, the impact of sulfidation methods and actual sulfur content ([S/Fe]particle) on the... more

=+ Add to Library

### A Resource utilization method for volatile organic compounds emission from the semiconductor industry: Selective catalytic oxidation of isopropanol to acetone Over Au/α-Fe2O3 nanosheets

Honghong Zhang, Lingyun Dai, Yuan Feng, Yuhan Xu, Yuxi Liu, Guangsheng Guo, Hongxing Dai, Chongchen Wang, Can Wang, Hsi... 2020, Applied Catalysis B Environmental - Article

We prepare α-Fe203 nanosheet supported 0.38, 0.81, and 1.36 wt% Au (average particle size = 4.0 nm) nanocatalysts, and investigate their performance and mechanism for the selective catalytic oxidatio... more

=+ Add to Library

453

8

7

### A Trivariate T-spline based Framework for Modeling Heterogeneous Solids

Bin Li, Jianzhong Fu, Yongjie Jessica Zhang, Aishwarya Pawar 2020, Computer Aided Geometric Design - Article

We present a robust framework to conduct material modeling suitable for continuously varying materials with a local material composition control. The geometry and attribute representations are define... more

Add to Library

### Modeling relation paths for knowledge base completion via joint adversarial training

Chen Li, Xutan Peng, Shanghang Zhang, Hao Peng, Philip S. Yu, Min He, Linfeng Du, Lihong Wang 2020, Knowledge-Based Systems - Article

Knowledge Base Completion (KBC), which aims at determining the missing relations between entity pairs, has received increasing attention in recent years. Most existing KBC methods focus on either emb... more

K View PDF =+ Add to Library

 $\sim$ 

 $\sim$ 

PATENTS selected filter not applicable

CLINICAL TRIALS selected filter not applicable

POLICY DOCUMENTS selected filter not applicab e

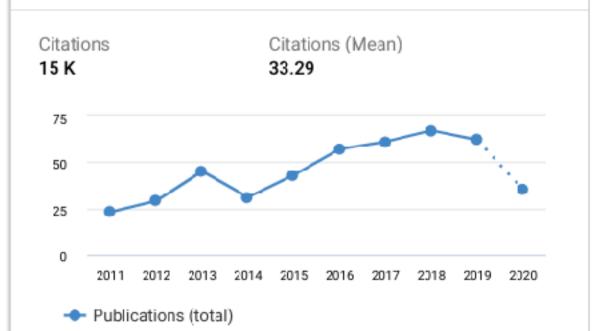
### Show abstract Sort by: Publication Date

### ANALYTICAL VIEWS

DVERVIEW

### RESEARCH CATEGORIES

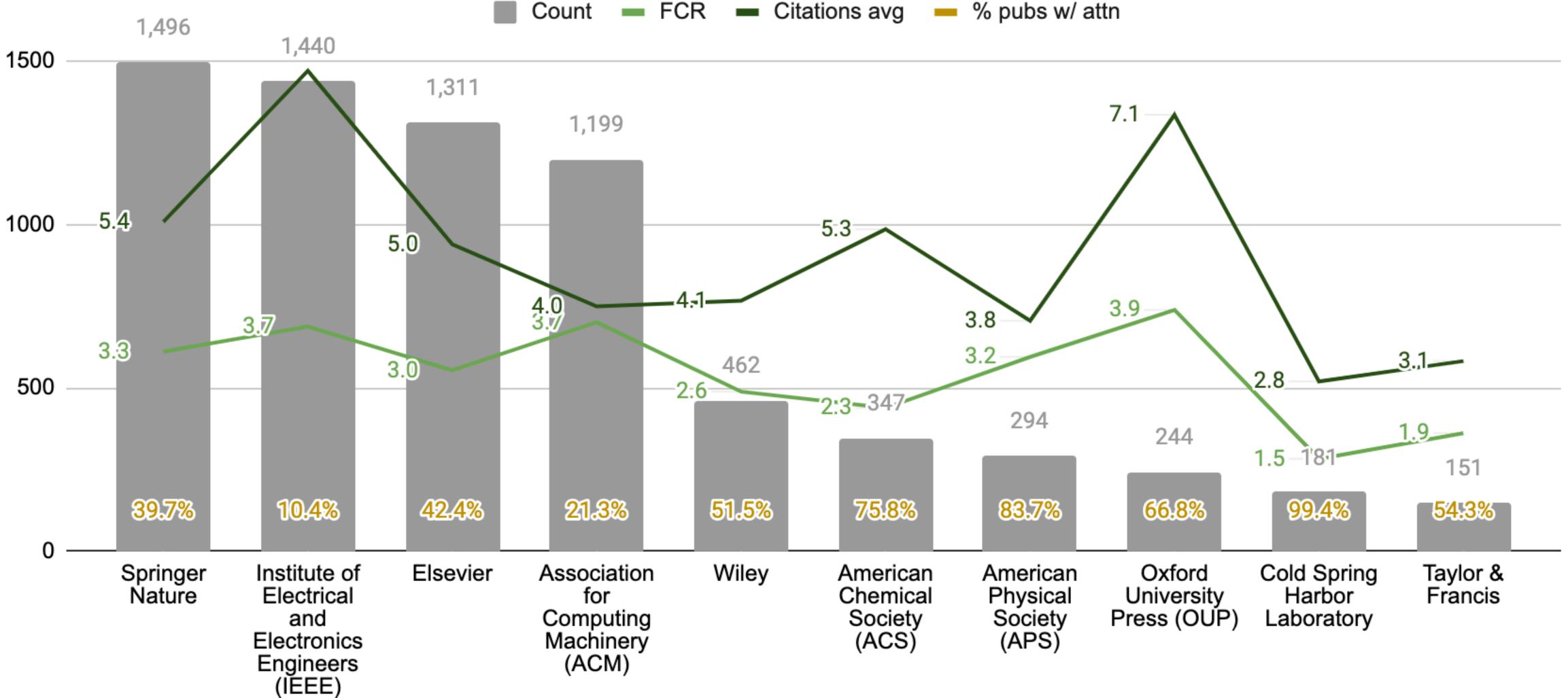
02 Physical Sciences 214	1
0202 Atomic, Molecular, Nuclear, Particle and Plasma Physi 170	)
01 Mathematical Sciences 107	7
09 Engineering 107	7
0105 Mathematical Physics 70	)



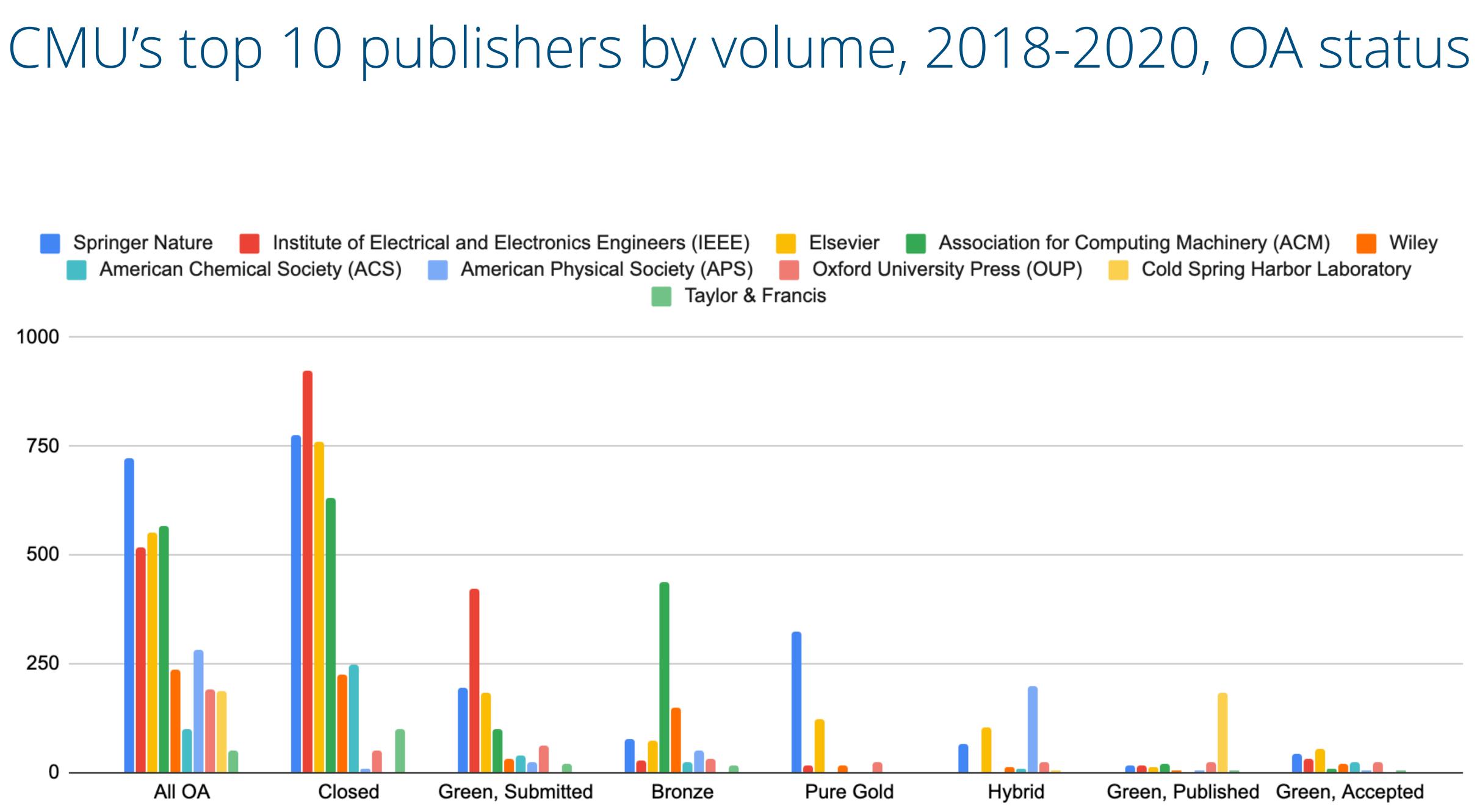
~
260
232
193
11
8
~

Ferenc Sikler	208
MTA Wigner Research Centre for Physics, Hungary	
C Martinez Rivero	208

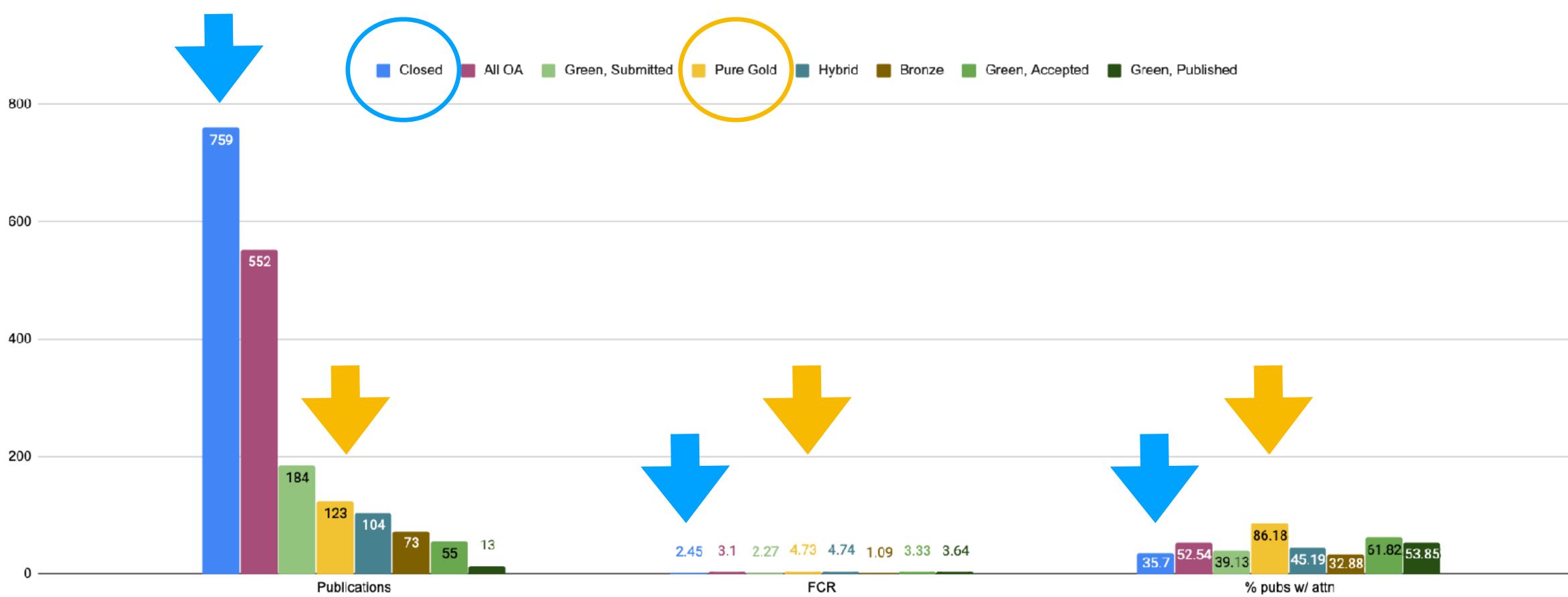
# CMU's top 10 publishers by volume, 2018-2020





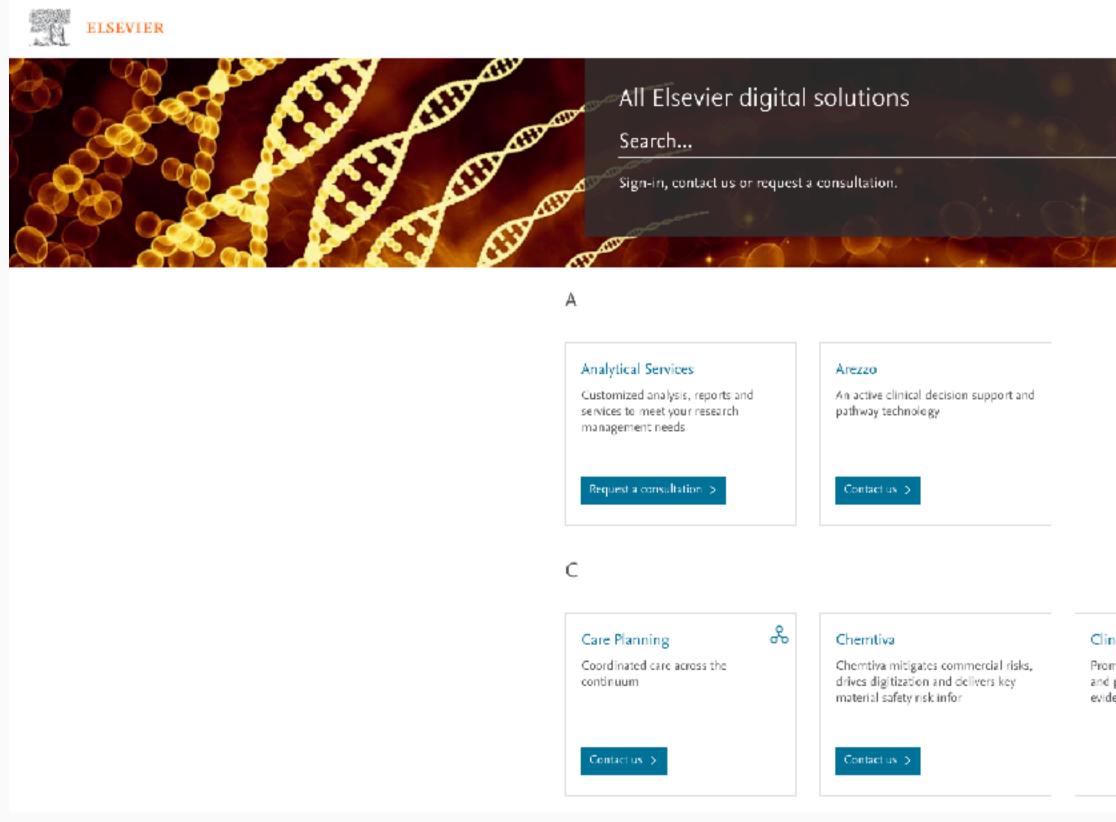


# CMU's publications with Elsevier, 2018-2020, overview



# Our use of other products

## Elsevier produces many products relevant to universities, hospitals, etc.



About Elsevier Products & Solutions Services Shop & Discover Search Q ΆΞ ×

### Clinical eLearning

Promote professional development and practice improvement with evidence-based learning

https://www.elsevier.com/solutions







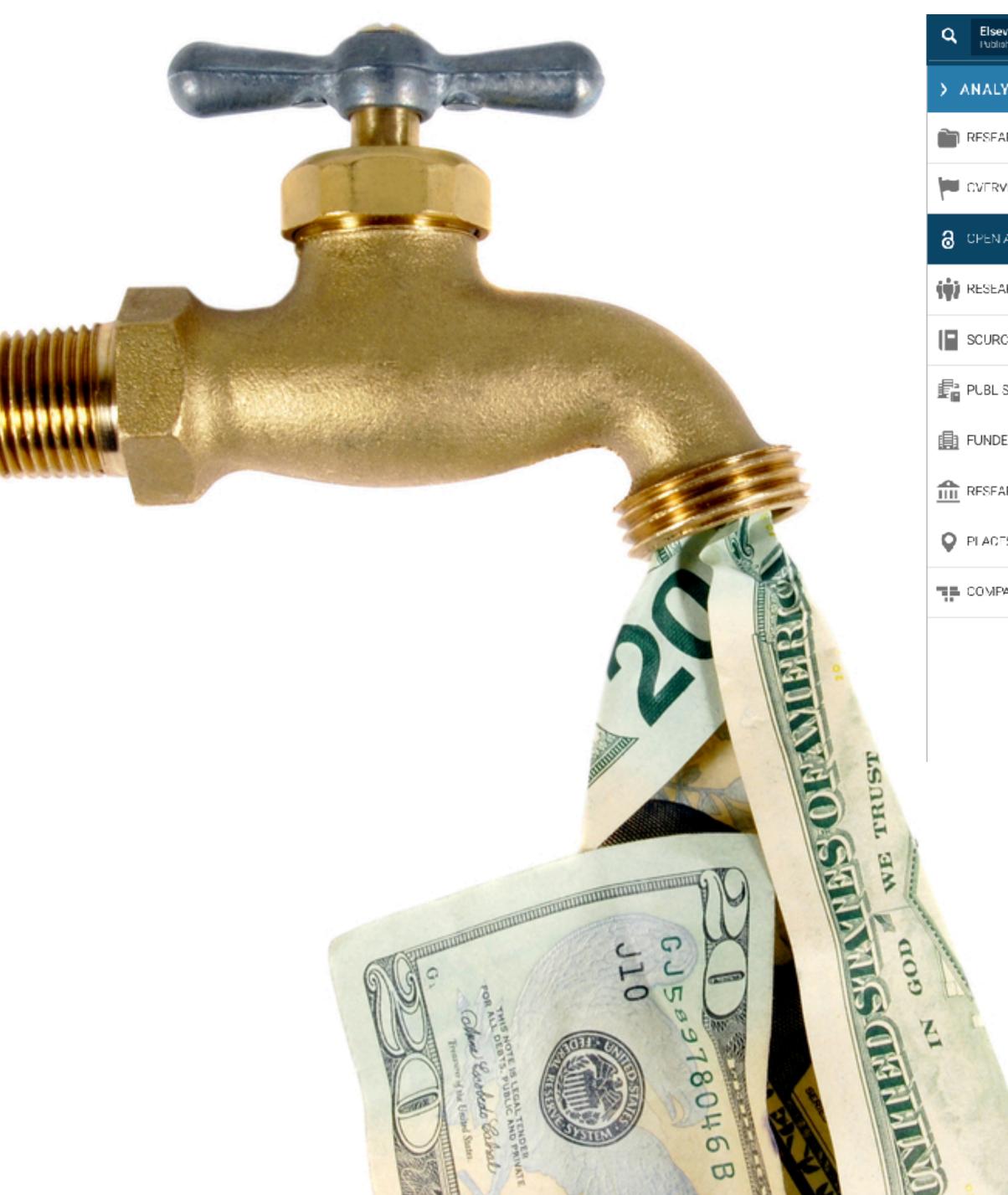




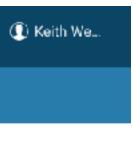


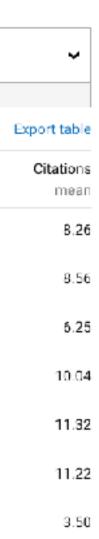






sevier × 2018 Publication Year × Carne Researc	gie Mellon University ×	Save / Export	Workflow	Support	🚺 Keith We
LYTICAL VIEWS   PUBLICA	TIONS				
EARCH CATEGORIES	Open Access				
RVIEW	related to your search Aggregated Timeline Heatmap				About indicators
N ACCESS					
EARCHERS	Publications   Citations   Citations (Mean)				~
IRCETITLES	Mean Change				Export table
L SHERS	Name	↓ Publica	itions	Citations	Citations mean
IDERS	Closed		280	2,314	8.26
EARCH ORGANIZATIONS	ALLOA		238	2,038	8.56
	Green, Submitted		84	525	ð.25
CES	Pure Gold		51	512	10.04
/IFARE	Hybrid		44	498	11.32
	Green, Accepted		37	415	11.22
	Bronze		18	63	3.50
	Green, Published		4	25	5.25







### Societies

Working in partnership to meet your publishing goals

Home > Books and Journals > Societies

As the world's leading scientific, technical, and medical publisher, Elsevier has an impressive record of long, fruitful and synergistic relationships with over 600 learned societies and associations worldwide.

### Strategic journal development

Your society can benefit from Elsevier's ability to monitor, Each society's needs are unique and Elsevier as a publishing partner understands their specialty and predict, and respond to the changing publishing landscape. markets.

### Marketing & sales

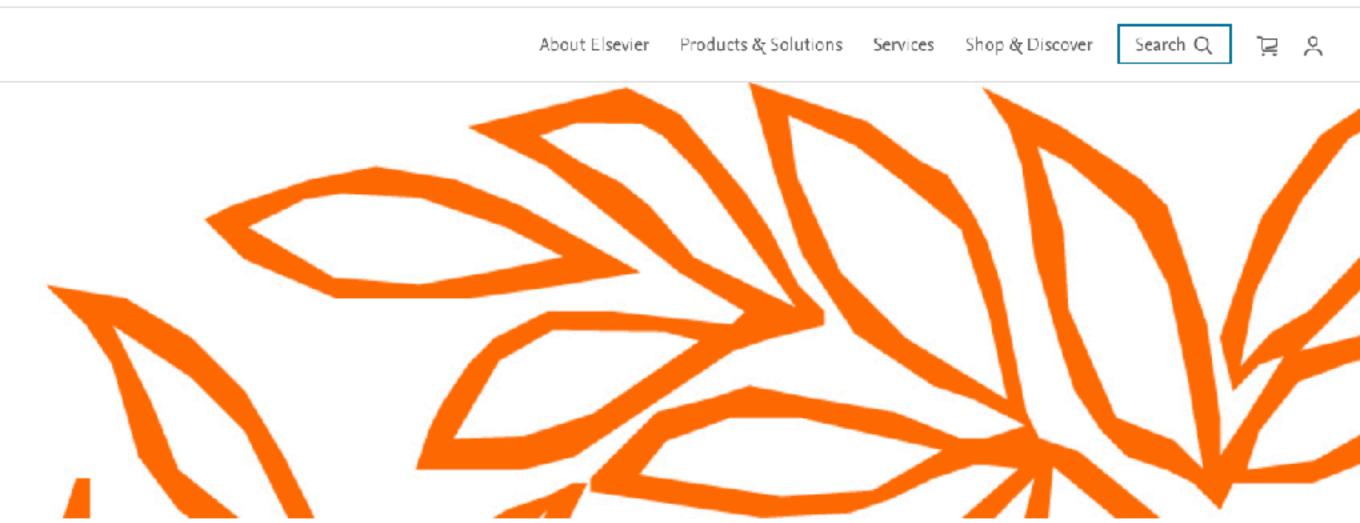
Discover how Elsevier services that help raise the Your society can benefit from a first-class customer societies profile in the professional community and build service team responsible for dealing with the management and fulfillment of all journal subscriptions. non-subscription revenues.

### Editorial and production support

Elsevier developed specific services for your journal Electronic formats greatly expand visibility, market perception, and revenue generation. Editors and editorial office staff.

### Open access

Your society can benefit from a range of options for authors wishing to publish their article open access.



### Strong partnerships & team spirit

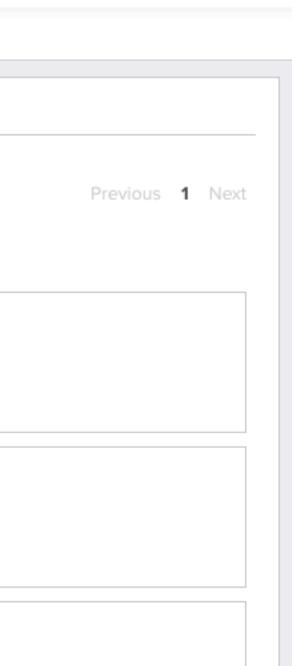
### Customer service & fulfillment

### Technologies & innovation

Given name	Initials	Surname	E-mail	Journal name	Acronym	Editorial role	Organization	Suborgani
				Design Studies	JDST	Editorial Board Member	Carnegie Mellon University	Dept. of A
				ARTIFICIAL INTELLIGENCE IN ENGINEERING	ARIE	Editorial Board Member	Carnegie Mellon University	Dept. of Ci
				Advanced Engineering Informatics	ADVEI	Editorial Board Member	Carnegie Mellon University	Dept. of Ci
				Automation in Construction	AUTCON	Editorial Board Member	Carnegie Mellon University	Dept. of C
				Science of Computer Programming	SCICO	Guest Editor	Carnegie Mellon University	Dept. of C
				Learning and Instruction	JLI	Editorial Board Member	Carnegie Mellon University	General
				Journal of Applied Logic	JAL	Editorial Board Member	Carnegie Mellon University	Dept. of N
				Journal of Engineering and Technology Management	ENGTEC	Editorial Board Member	Carnegie Mellon University	General
				Information Economics and Policy	IEPOL	Editorial Board Member	Duke University / CMU	Fuqua Sch
				Research Policy	RESPOL	Advisory Editor	Duke University / CMU	Fuqua Sch
				Discrete Optimization	DISOPT	Editorial Board Member	Carnegie Mellon University	Dept. of N
				Discrete Applied Mathematics	DAM	Advisory Board Member	Carnegie Mellon University	Dept. of N
				European Journal of Operational Research	EOR	Editorial Board Member	Carnegie Mellon University	Dept. of N
				Electronic Commerce Research and Applications	ELERAP	Former Associate Editor	Carnegie Mellon University	CyLab
				Computers & Security	COSE	Guest Editor	Carnegie Mellon University	CyLab
				Neuropsychologia	NSY	Advisory Board Member	Carnegie Mellon University	Dept. of P
				Cortex	CORTEX	Guest Editor	Carnegie Mellon University	Dept. of P
				Progress in Polymer Science	JPPS	Editor-in-Chief	Carnegie Mellon University	Dept. of C
				Progress in Polymer Science	JPPS	Guest Editor	Carnegie Mellon University	Dept. of C
				Additive Manufacturing	ADDMA	Editorial Board Member	Carnegie Mellon University	General
				Computer Speech & Language	YCSLA	Guest Editor	Carnegie Mellon University	Dept. of C
				Speech Communication	SPECOM	Editorial Board Member	Carnegie Mellon University	Language
				Journal of Criminal Justice	ICI	Former Editor	Carnegie Mellon University	H. John H
				Operations Research Letters	OPERES	Advisory Editor	Carnegie Mellon University	H. John H
				Progress in Polymer Science	JPPS	Editorial Board Member	Carnegie Mellon University	Dept. of N
				Advances in Applied Mathematics	YAAMA	Editorial Board Member	Carnegie Mellon University	Dept. of N
				The Journal of Systems & Software	JSS	Guest Editor	Carnegie Mellon University	Dept. of C
				Electronic Notes in Theoretical Computer Science	ENTCS	Editor	Carnegie Mellon University	Dept. of C
				Journal of Applied Logic	JAL	Editorial Board Member	Carnegie Mellon University	Dept. of N
				Design Studies	JDST	Associate Editor	Carnegie Mellon University	Dept. of N
				Neural Networks	NN	Editorial Board Member	Carnegie Mellon University	Dept. of E
				Data & Knowledge Engineering	DATAK	Editor-in-Chief	Carnegie Mellon University	Software
				Progress in Energy and Combustion Science	JPECS	Editor-in-Chief	Carnegie Mellon University	Dept. of N
				Journal of Applied Logic	JAL	Editorial Board Member	Carnegie Mellon University	School of
				Explorations in Economic History	YEXEH	Editorial Board Member	Carnegie Mellon University	H. John H
				Journal of Cleaner Production	JCLP	Guest Editor	Carnegie Mellon University	Dept. of C
				Journal of Iron and Steel Research International	JISRI	Editorial Board Member	Carnegie Mellon University	General
				Journal of Computer and System Sciences	YJCSS	Associate Editor	Carnegie Mellon University	Computer
				Applied and Preventive Psychology	APPSY	Former Editorial Board Member		Sch. of So
				Journal of Biotechnology	BIOTEC	Editorial Board Member	Carnegie Mellon University	Dept. of C
				Developmental Review	YDREV	Associate Editor	Carnegie Mellon University	Sch. of So
				Electronic Commerce Research and Applications	ELERAP	Associate Editor	Carnegie Mellon University	General
				Journal of Applied Research in Memory and Cognition	JARMAC	Editorial Board Member	Carnegie Mellon University	Sch. of So
				Automation in Construction	AUTCON	Former Editorial Board Member		School of
				Journal of Discrete Algorithms	JDA	Editorial Board Member	Carnegie Mellon University	Dept. of N
				Discrete Mathematics	DISC	Editorial Board Member	Carnegie Mellon University	Dept. of N Dept. of N
				Research Policy	RESPOL	Advisory Editor	Carnegie Mellon University	General
				ARTIFICIAL INTELLIGENCE IN ENGINEERING	ARIE	Editorial Board Member		
					ARIE	Editorial Board Member	Carnegie Mellon University	Dept. of C
				Advanced Engineering Informatics	ADVEI	cultorial board wember	Carnegie Mellon University	Dept. of C

### **Carnegie Mellon University**

← BACK TO MY SEARCH	ABOUT PUBLICATIONS PROFESSIONAL TEACHING
	PROFESSIONAL ACTIVITIES         Showing 1-12 out of 12         Previous 1         Title ^         Date
Taya Cohen	COMMITTEE MEMBERSHIP         International Association for Conflict Management         1 Jan 2020
0000-0001-7325-793X	President
Associate Professor of Organizational Behavior and Theory TEPPER SCHOOL OF BUSINESS	COMMITTEE MEMBERSHIP         Negotiation and Team Resources Institute         1 Mar 2018         Chair
412-268-6677	COMMITTEE MEMBERSHIP
tcohen@andrew.cmu.edu	Committee Member 1 Mar 2016 - 1 Jul 2016
<ul> <li>Carnegie Mellon University, Tepper School of Business, 5000 Forbes Ave, Pittsburgh, PA, 15213, United</li> </ul>	Member       Carnegie Mellon University         COMMITTEE MEMBERSHIP       < BACK TO MY SEARCH       ABOUT       PUBLICATIONS       PROFESSIONAL       TEACHING
States	Editorial Review Board Member
https://papers.ssrn.com/sol	1 Jan 2016 Member
3/cf_dev/AbsByAuth.cfm?pe	Showing 1-8 out of 8 Title $\land$ Date $\checkmark$ Type
	Jennifer Lynn Bruder Journal Reviewing / REFEREEING Neuroscience Letters
	Image: Description of the sector of the s





### **NISO** webinar https://www.niso.org/events/2020/07/no-more-bigdeal-picking-and-choosing-titles-use



https://www.youtube.com/watch?v=KhR\_5uMytrM

How to gather, analyze and use publication data for negotiating open access agreements

Keith Webster Dean of University Libraries and Director of Emerging and Integrative Media Initiatives

**Carnegie Mellon University** 



**OA2020 community of practice** https://keeper.mpdl.mpg.de/f/aa8e0ddcd933417e8414/









# In a crisis, be aware of the danger--but recognize the opportunity.

# 后机

### OCTOBER 2020

The future of the research library in the post-pandemic university

Keith Webster Dean of University Libraries and Director of Emerging and Integrative Media Initiatives

@cmkeithw

**Carnegie Mellon University** 

10th Shanghai international Library Forum http://silf2020.library.sh.cn/en/

### **SEPTEMBER 10, 2020**

Digital Scholarship for a Post-crisis Tomorrow: Digital Acceleration and the Role of the Library

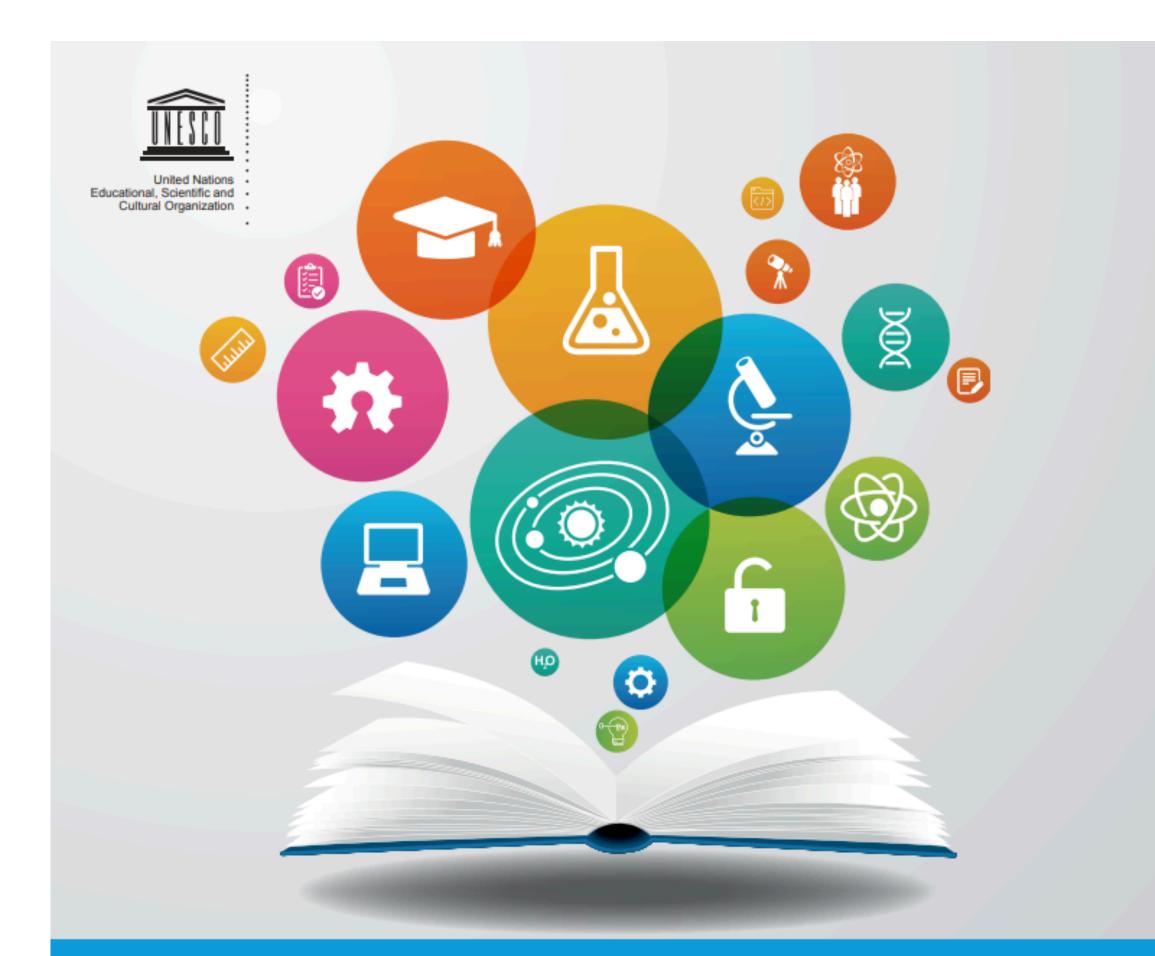
Keith Webster Dean of University Libraries and Director of Emerging and Integrative Media Initiatives

Carnegie Mellon University

@cmkeithw

CNI Digital Scholarship Planning 2020 https://www.youtube.com/watch?v=GaWTyxahx2s





## Towards a UNESCO Recommendation on Open Science

Building a Global Consensus on Open Science

"The COVID-19 pandemic raises our awareness of the importance of science, both in research and international cooperation. The present crisis also demonstrates the urgency of stepping up information sharing through open science. The time has come for us to commit all together,"

-UNESCO Director-General Audrey Azoulay

As businesses step into the post-coronavirus future, they need to find a balance between what worked before and what needs to happen to succeed in the next normal.

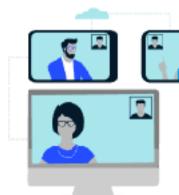
~ McKinsey & Co.





### E-commerce 10 years in 8 weeks

increase in e-commerce deliveries



## Remote working 20x participants in 3 months

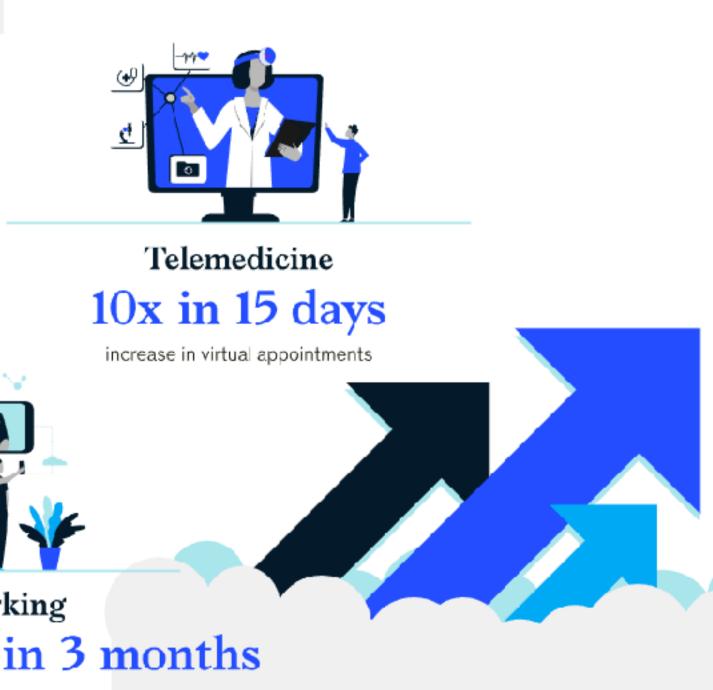
increase in videoconferencing



Remote learning 250 million in 2 weeks

students who went to online learning

Global COVID-19-driven digital adoption rates have covered decades in days.





### Online entertainment 7 years in 5 months

Disney+ achieved in five months what took Netf ix 7 years

# **Carnegie Mellon University**



kgw@cmu.edu



cmkeithw



Keith Webster



cmkeithw

