Maximizing Your

RESEARCH IMPACT

SKILLS FOR RESEARCHERS

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LESSON OUTLINE



AUS | الجامعة الأميركية في الشارقة | American University of Sharjah University Library

01 What Is Research Impact

02 Strategies

03 Questions

What Is Research Impact?

The demonstrable contribution that excellent research makes to society and the economy. This can include both;

<u>Academic impact</u>, which is demonstrable contribution that excellent social and economic research makes in shifting understanding and advancing scientific method, theory and applications across and within disciplines.

Economic and societal impact, which is the demonstrable contribution that excellent social and economic research has on society and the economy, and its benefits to individuals, organisations, or nations.



Types of RESEARCH IMPACT

ACADEMIC

Contribution to advances across and within disciplines, including significant advances in understanding, method, theory and application.

CULTURAL

Contribution to people's understanding of ideas and reality, values and beliefs.

ECONOMIC

Contribution to a company's costs and revenues (micro level), and economic returns through increased productivity or economic growth (macro level).

EDUCATIONAL

Contribution to education, training and capacity-building, including through curricula, educational tools, and qualifications.

ENVIRONMENTAL

Contribution to managing the environment, such as protecting natural resources, reducing environmental pollution, improving weather forecasting, and tracking the climate crisis.

HEALTH

Contribution to public health, life expectancy, health-related quality of life, prevention of illness, and reduced health inequality.

POLITICAL

Contribution to how policymakers act, to hot policies are constructed, and to political stability.

SOCIAL

Contribution to community welfare and quality of life, and to behaviors, practices, and activities of people and groups.

TECHNOLOGICAL

Contribution to the creation or improvement of products, processes and services.

What is Impact made of?

Reach refers to how widespread the impact is; the extent, spread, breadth, and/or diversity of the beneficiaries of the impact.

Significance refers to how important or valuable the impact is to the beneficiary. The degree to which the impact has enabled, enriched, influenced, informed or changed the performance of policies, practices, services, culture, understanding awareness or well-being of the beneficiaries (not the prevalence or magnitude of the issue).



Prof Mark Reed Fast Track Impact



"Put simply, if my research saves someone's life, I've made a **significant** impact; if my research saves millions of peoples' lives, the impact is no more significant, but now it has **reach** as well."

Planning for Impact



To maximise the impact of your research, it's essential to;

- prepare an impact plan
- find the right publication venue
- have a good online presence
- consider open access



UCD IMPACT PLANNING CANVAS

UCD RESEARCH & INNOVATION















 Fill it in using postit notes or digital



FUNDING

What is your funding roadmap to enable this research programme and create impact?



POTENTIAL IMPACT

What potential impact(s) will your research have? Cultural, Economic, Educational, Environmental, Health, Political, Social, Technological.

The Impact Planning Canvas is adapted from the Business Model Canvas and is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License.

See related video at: www.ucd.ie/researchimpact

down into component parts Systemic way

Breaks impact

impact should be integrated into research

board (so you can be agile)



UCD IMPACT PLANNING CANVAS

UCD RESEARCH & INNOVATION



CHALLENGE

hat are the key research hallenges/problems that need to be addressed?

Unhealthy snacks are high in salt causing health issues

Lack of available 'on the go' healthy snacks apart from fruit, nuts, etc.

Increasing snacking habits amongst children/ young adults which is contributing to childhood obesity

FUNDING

RESPONSE

Development of a snack that is:

- Lower in salt, fat & calories
- Higher in protein and fibre
- Produced using an innovative production method to make producing healthy snacks easier

RESOURCES AND TEAM

- Specialised microwave to allow scale up
- UCD Research and Innovation services re: - IP protection

UNIQUE VALUE PROPOSITION

results bring to each beneficiary?

General public:

Will gain access to a healthier, tastier snack product over existing products

Food and snack manufacturers:

Will be able to bring a new product to market that will offer them a competitive advantage over their competitors.

Policymakers in health:

Will benefit from healthier outcomes in society

REACH AND **ENGAGEMENT**

- Conducting food tests and tastings with consumers
- Engagement with food and snack manufactures to assess interest and understand manufacturing challenges
- Involving policy makers in a research advisory group

MEASURES S OF IMPACT

Economic: Could be measured based on resulting licensing income and jobs in the manufacturing company that licensed the IP. 5 to 10 year time frame

Health: Can be measured via the resulting health benefits of eating this snack versus less heathy snacks. 5 to 10 year time frame

Scientific: High quality research oublications in international journals

BENEFICIARIES (3

Who will benefit or use the results from your research?

General public:

The snacking generation children, young adults and the parents of children (Indirect)

Food & Snack manufacturers (Direct)

6

Policymakers in health (Indirect)

Impact Canvas Example

الجامعة الأميركية في الشارقة Amorioan Linius

University Library

Healthy, tasty snacks

· Department of Agriculture

Commercialisation Funding

Food and Marine

Enterprise Ireland

POTENTIAL IMPACT

notential impact(s) will your research have? Cultural, Economic,

Economic:

Impact through licensing Intellectual Property to an Irish food company

Health:

Impact to the general public via improved health outcomes from having access to a new healthy snack

Scientific:

High quality fundamental and applied research

The Impact Planning Canvas is adapted from the Business Model Canvas and is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License.

See related video at: www.ucd.ie/research/portal/impact

Journal Selection

Different factors

- Where is your audience?
- University/funder requirements?

Scopus

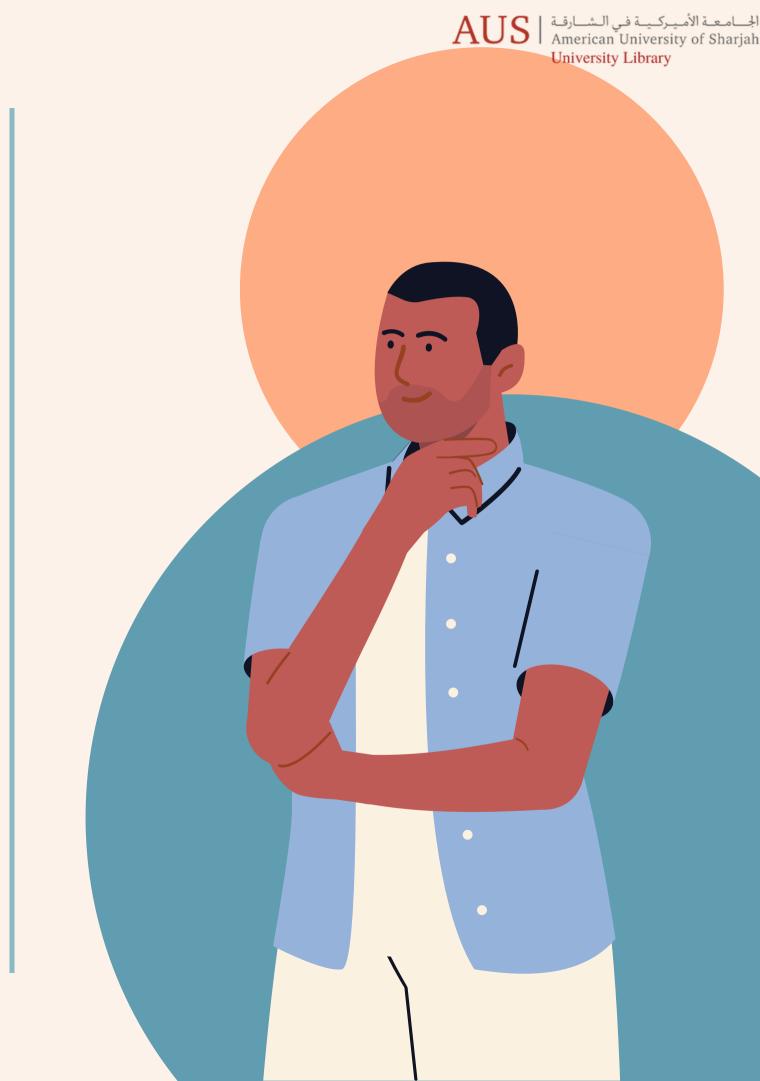
- Scopus Sources
- <u>JournalFinder</u>

Tools

- T&F Journal Suggester
- Wiley Journal Finder
- Directory of Open Access Journals

Avoiding Predatory Publishers

• Think. Check. Submit.



Online Presence

Having good profiles will....







Profiles

• Scopus

- Automatically assigns an ID number to an author with at least one indexed publication
- Author Profiles include affiliations, publications, subject areas, citation, and other metrics.
- Author Wizard portal allows some profile customisation, but profile primarily controlled by Elsevier

• Google Scholar

- Create yourself (use a personal account)
- Needs to updated reguarly
 - GS data is messy

• ORCID

- Important for disambiguation
- Total control
- Can add adjacent activities, like peer review

• Academia.edu or ResearchGate?

Not technically "scholarly profiles" but still important

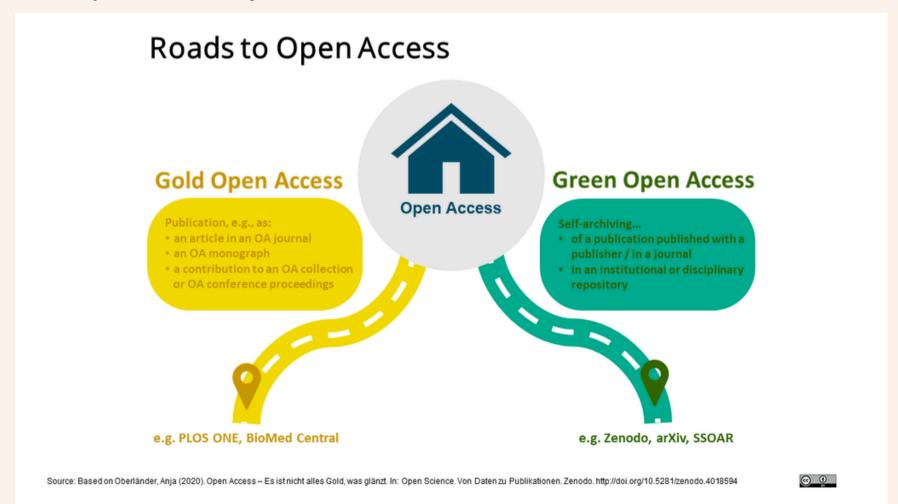
Online Presence Checklist

_	Good	Better	Best	
ORCID	 Create account and make it public Add name variations Add or import publications Add ORCID URL to email signature Link to your department profile 	 Add your research field keywords Link to website or other profiles Display ID on submissions Enable updates from Scopus, Crossref, etc Download your unique QR code 	 Add email, bio, employment Add education and qualifications Add memberships, service, funding and distinctions 	
ELSEVIER Scopus	 Check publications Claim unassigned publications Check affiliation Add name variants and merge profiles if needed 	 View potential matches Add Scopus ID to department profile Add preferred name 	 Authorize ORCID integrations Set up citation alerts Follow authors or interest (or yourself) 	
© Clarivate Web of Science [™]	 Check publications Claim unassigned publications Check affiliation Add ResearcherID URL to email signature 	 View potential matches Add ResearcherID to department profile Add your peer review history 	 Authorize ORCID integrations Set up citation alerts Follow authors or interest (or yourself) 	
3 Google Scholar	 Create account Check and claim auto-added publications Add a professional portrait photo Make your profile public 	 Manually add missing publications Add research fields of interest Add website of other profiles 	 Add co-authors 'Follow' your articles, citations 'Follow' other researchers' articles citations 	
Linked in .	 Create account Add a succinct headline Add a brief research statement Add a professional portrait photo Add skills 	 Add CV highlights Give and seek endorsements and recommendations Personalize you invitations Add links to your other profiles Add content - links, slides, photos 	 Use your LinkedIn updates to send content to your networks Write and share short opinion pieces 	
ResearchGate	 Create account Add a professional portrait photo Add skills and expertise Add institution and department Add ORCID ID 	 Add PDFs where your copyright/licenses allow Follow researchers Follow research interests Link to your other profiles 	 Add project updates Share draft versions to receive feedback Write short reviews on articles 	
Academia.edu	 Create account Add a professional portrait photo Link to your other profiles Link to your publications 	 Add PDFs where your copyright/licenses allow Check your profile and document views 	 Follow researchers Follow 'followers' of researchers Follow 'groups' Share drafts, talks, conferences 	



Open Access

- Doesn't have to be Gold to be open access
- Reputable Repositories
 - Institutional
 - FigShare/Zenodo/Arxiv
- Open Policy Finder



Demonstrating Impact



To demonstrate the impact of your research, it's essential to understand;

- research metrics
- alternative metrics

Research metrics

aka bibliometrics
Set of traditional quantitative methods used to measure research impact.

Author Level

To analyze individual author's output and performance over time (h-Index, i10- index, Beamplot, etc)

Article Level

Measure the citation impact of a specific research article (citation counts)

Journal Level

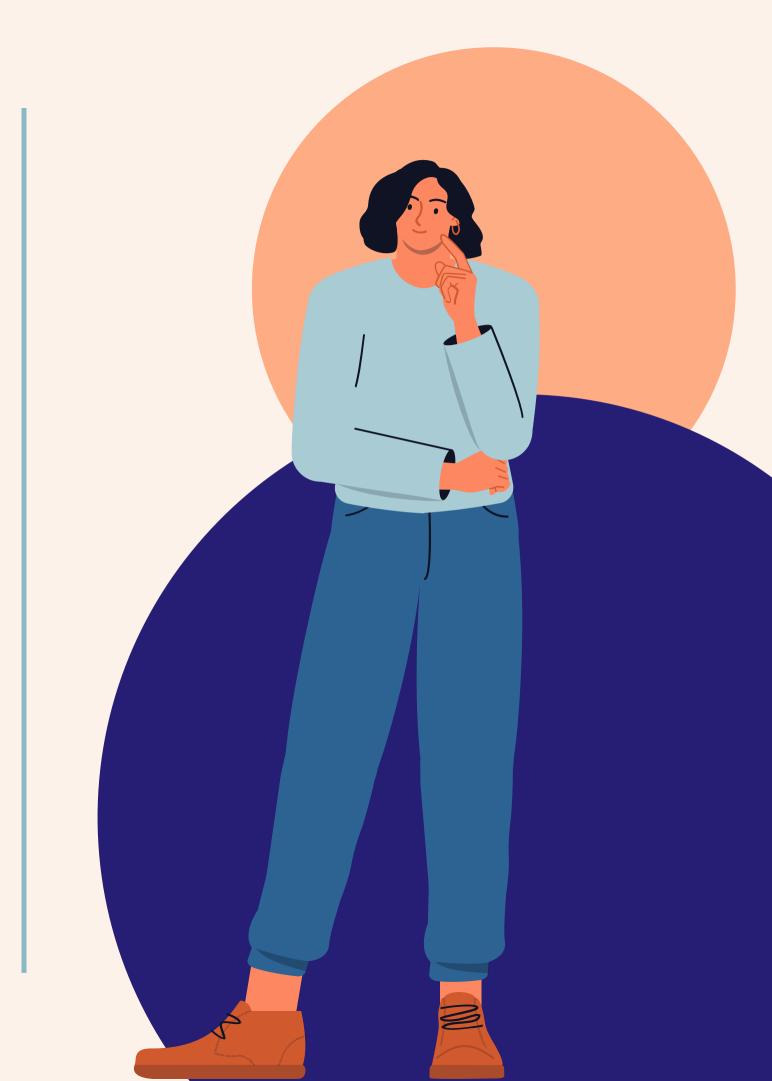
Assess the citation impact and influence of a journal (Journal Impact Factor (JIF), CiteScore, and SCImago Journal Rank (SJR))



Authorlevel

H-Index

- What it is: A metric that measures both the productivity and citation impact of a researcher's publications. A scholar with an H-index of 10 has at least 10 papers that have each been cited 10 times.
- Why it matters: Balances productivity and impact, helping to assess both the quantity and the influence of a researcher's work. However, it favours established researchers with a longer publication history.



Author level metrics



Jane Davidson

Professor of Creative and Performing Arts, the University of Melbourne Verified email at unimelb.edu.au

music psychology psychology of music music education performance

Davidson, Jane Whitfield

① University of Melbourne, Melbourne, Australia 💿 7403933562 ①

h-index View h-graph

View all metrics >

Scopus

https://orcid.org/0000-0003-4941-9518



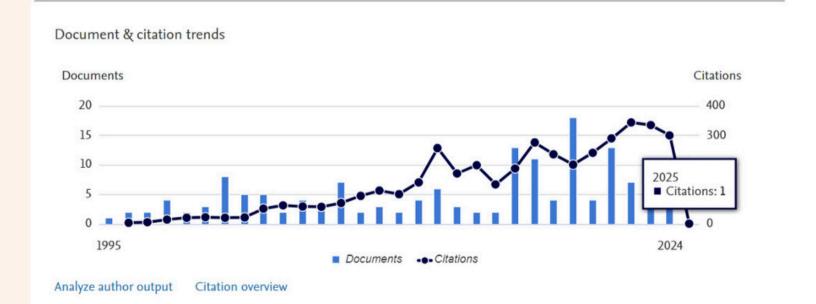
4,038

Citations by 2,799 documents

Edit profile ... More



Documents



Clarivate

Profile summary

Web of Science

Total documents

Web of Science Core Collection publications

Preprints

Web of Science Core Collection metrics (i)

H-Index

93

Publications

1,982

1,655

Sum of Times Cited

Citing Articles

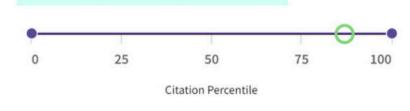
Patents

Sum of Times Cited by

Citing Patents

View citation report

Author Impact Beamplot Summary ①



Author's publication percentile range

Overall citation percentile median



Cited by		VIEW ALL		
	All	Since 2019		
Citations	16997	5864		
h-index	66	40		
i10-index	154	119		
1.0		1200		
		900		
	ш	600		
		300		
2017 2018 2019 2	2020 2021 2022	2023 2024 0		
Public access		VIEW ALL		
8 articles		25 articles		
not available		available		
Based on funding	mandates			



Article level

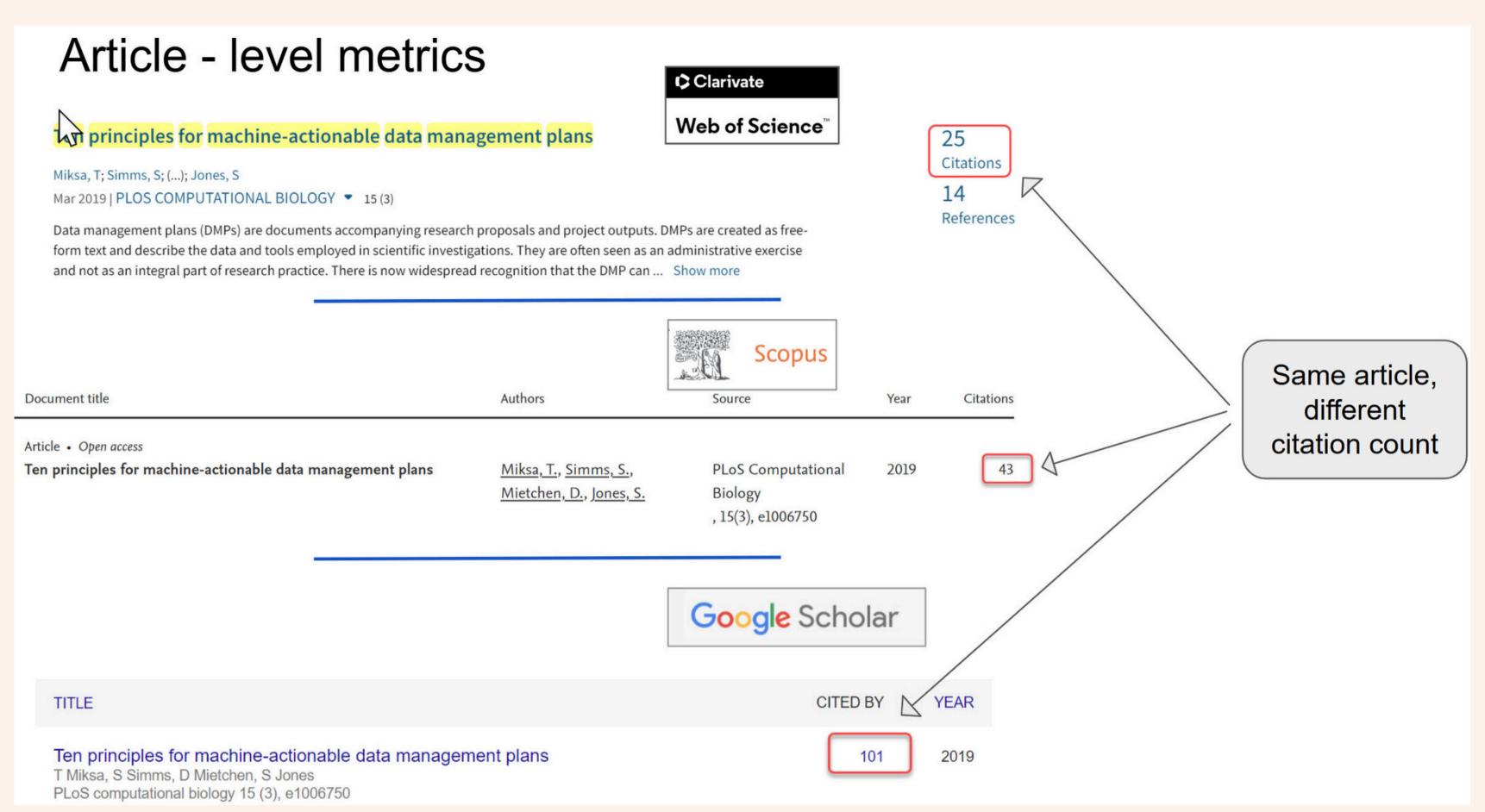
Citation Count

- What it is: The total number of times a research article is cited by other publications.
- Why it matters: Citations indicate how influential or useful a piece of research is to the academic community. A higher citation count generally suggests that the work has had a broader impact.

Field-Weighted Citation Impact (FWCI)

- What it is: Compares the number of citations a publication has received to the average number of citations for similar publications in the same field.
- Why it matters: FWCl accounts for disciplinary differences in citation practices, offering a more field-sensitive way to measure impact.







Journal level

CiteScore and JIF

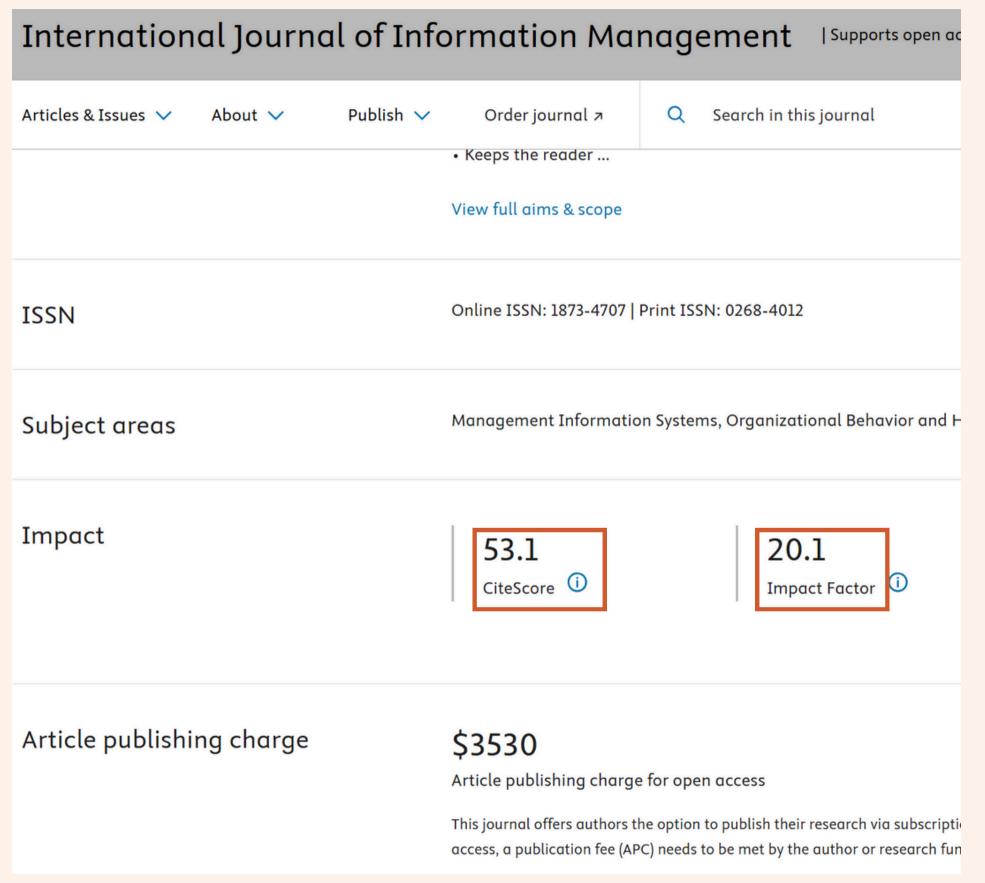
- What it is: Metrics that calculate the average number of citations received in a year by all articles published in a journal over a certain time period (4 & 2 years respectively).
- Why it matters: Selecting a journal with a high JIF or CiteScore, can increase the chances that their work will be widely read and cited.

SciMago Journal Rank (SJR)

- What it is: A metric that measures the average number of citations received per article published in a journal over the previous three years. SJR gives greater value to citations from more prestigious or high-impact journals.
- Why it matters: Selecting a journal with a high SJR score can boost the visibility and prestige of published research. The weighting of citations reflects the influence of a journal in its field, helping researchers choose journals that may enhance the reach and impact of their work.



Journal level metrics





	Title	Туре	↓ SJR	H index	Total Docs. (2023)	Total Docs. (3years)	
1	International Journal of Information Management	journal	5.775 Q1	177	95	464	
2	Information Systems Research	journal	4.176 Q1	185	89	218	
3	European Journal of Information Systems	journal	3.824 Q1	128	89	121	
4	Big Data and Society 🔒	journal	2.448	69	118	272	



Alternative metrics

aka altmetrics

non-traditional alternative methods showing online societal attention and engagement with research. They are to complement and not to replace traditional metrics.

Author Level

Tools like ImpactStory have badges to display on your profile to do with openness and engagement

Article Level

Measure the impact and engagement of research (social media mentions, and online readership)





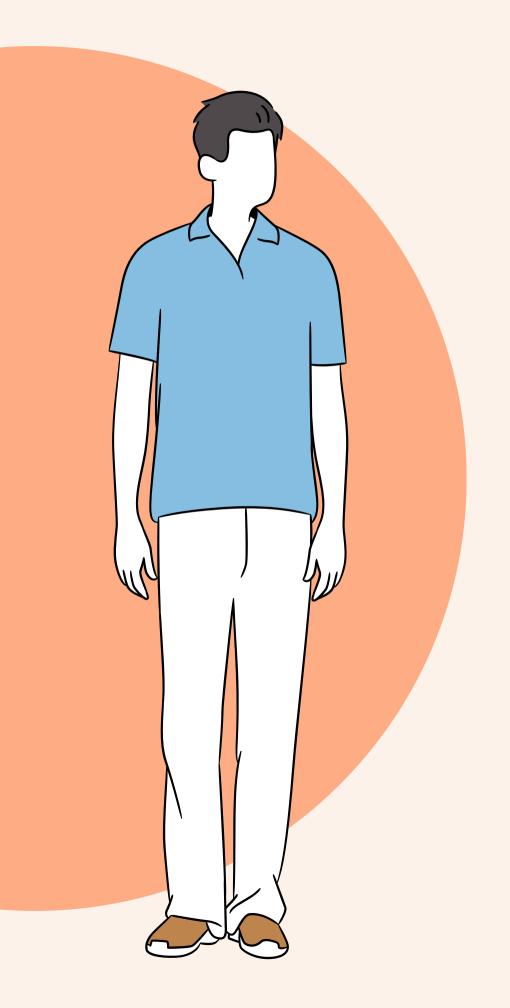
Alternative Metrics

PlumX Metrics (found in Scopus) What it is

• A suite of metrics that tracks research impact across five categories: citations, usage (downloads, views), captures (bookmarks, favorites), mentions (media, blogs), and social media (tweets, shares).

Why it matters

• PlumX provides a more nuanced and holistic view of research engagement, capturing attention from both academic and non-academic audiences.



Alternative Metrics

Altmetric.com (and <u>bookmarklet</u>)
What it is

• A service that tracks mentions of research outputs across online sources like news articles, social media, blogs, policy documents, and Wikipedia.

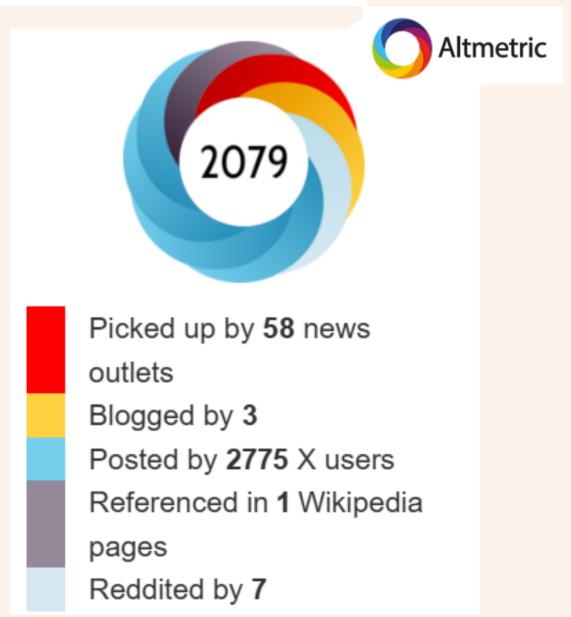
Why it matters

• The Altmetric Attention Score offers a quick snapshot of how widely a research output has been discussed and shared online, helping to demonstrate real-time societal and public interest.

The effect of front-end vehicle height on pedestrian death risk



Metrics Details	
CITATIONS	2
Citation Indexes	2
Scopus <i>₹</i>	2
CAPTURES	17
Readers	17
Mendeley 🗷	17
MENTIONS	72
News Mentions	69
News	69
Blog Mentions	2
Blog	2
References	1
Wikipedia	1



Can include

- # of views and downloads
- Social media mentions
- Media mentions
- Policy and Patent citations
- Attention scores
- Citations in non-scholarly publications



Responsible Use

Use metrics responsibly

• Citation-based metrics are valuable, but they should be complemented by qualitative evaluations of research quality and context.

Limitations

• Citation patterns vary across disciplines; newer researchers may have fewer citations due to the time it takes for citations to accumulate.

Database differences

• Databases have different information, and so metrics are different accordingly. GS tends to have highest citations and h-indexes, for example.

Alternative Metrics

 Composite score rather than raw total of the number of mentions with weightings for difference attention types which can change over time





Research Impact Modules

- Open resource created by AUS Scholarly Communications Librarian
- Eight modules covering different areas of research impact
- Interactive, self-paced
- Available here
 [https://rise.articulate.com/share/_JsVA1
 GN24V95LRML7P6r8PXl6gJBVbf#/]

Research Impact

START

What is Research Impact? Scholarly Identity Online networking and social media Gen Al for Researchers **Publishing for Impact Open Access Publishing Metrics and Altmetrics** What is your impact? **Further Support and Acknowledgements**



QUESTIONS?

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