

Open Access Week @ UK Libraries

#Almetrics: Background and Overview

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UK Athletics Auditorium, William T. Young Library

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Bibliometrics: Purpose

- "to shed light on the processes of written communication and of the nature and course of development of a discipline (in so far as this is displayed through written communication" (Pritchard, 1969, p. 348)

E.g.:

Research Article

Eponymy and Obliteration by Incorporation: The case of the “Nash Equilibrium”

Katherine W. McCain

Article first published online: 12 MAY 2011

DOI: 10.1002/asi.21536

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Issue



Journal of the American
Society for Information
Science and Technology

Volume 62, Issue 7, pages
1412–1424, July 2011

Bibliometrics: Purpose

- "the assembling and interpretation of statistics related to books and periodicals ... to demonstrate historical movements, to determine the national or universal research use of books and journals, and to ascertain in many local situations the general use of books and journals" (Pritchard, 1969, p. 348)

Institution: Univ Of Kentucky

Monthly Feature



A Historical Perspective of Pediatric Publications: A Bibliometric Analysis

Nuala Quinn, MRCPI, Owen Hensey, FRCPI, and Dermot Thomas McDowell, MRCS

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Key Words:

• Bibliometrics • pediatrics • citation analysis

« Previous | Next Article »
Table of Contents

This Article

Published online August 26, 2013
PEDIATRICS Vol. 132 No. 3 September 1, 2013
pp. 408-412
(doi: 10.1542/peds.2013-0283)

- Extract
- » Full Text
- Full Text (PDF)

Article Type

- Monthly Feature

Services

- Email this article to a friend
- Alert me when this article is cited

E.g.:

To Impact

Eugene Garfield describes the journal impact factor in 1972.

Research in author impact, using *bibliometrics and citation analysis*, begins and grows around the mid-1970s.

Source: Garfield, Eugene. (1972). Citation analysis as a tool in journal evaluation. *Science New Series*, 178(4060), 471-479.

<http://www.jstor.org/stable/1735096>

Assumption

"science [is] conceived of as a system of communication"

- Robert K. Merton, *The Matthew Effect in Science*

Norm

Communism or the idea that "the substantive findings of science are a product of social collaboration and are assigned to the community"

Robert K. Merton, *The Normative Structure of Science*

Other Background Factors

The need to:

- Evaluate science:
peer review
- Communicate and disseminate good science:
publish, organize, filter, and retrieve
- Identify important work:
impact

The Argument

Scholarly communication is broken because:

The Argument

It is a system that:

- Is largely based on a slow, issue-based, print publication model.
- Involves a peer review system that is prone to:
bias, error, overload.
- Contains content that is insufficiently described and hinders reproducibility.
- Leaves out important supplementals, such as raw data and source code.
- Uses citations as a measure of impact. This is slow and narrow.

The Fix

The web has enabled:

- Greater interaction with text
 - Not limited by page length
- Dissemination of raw data and code
 - Faster dissemination
 - Faster impact
 - Broader impact
 - Open peer review

Interaction with text

Introduction

Material and Methods

Results

Discussion

Conclusion

Summary


Supplemental Information

Additional Information and Declarations

Peer Review history

small (<2 cm) filamentous algal turfs generally have noticeably higher DOC release rates than calcifying primary producers including hermatypic corals.


These results are consistent over a wide range of reef systems, comprising the Red Sea ([Haas et al., 2010a](#); [Naumann et al., 2012](#)), the Caribbean ([Haas et al., 2010b](#)), and the Central Pacific ([Haas et al., 2011](#)).

1  However, counter to expectations, [Nelson et al. \(2011\)](#) demonstrated that in a backreef system dominated by algae rather than corals, DOC

Interaction with text

about [Influence of coral and algal exudates on microbially mediated reef metabolism](#)

 **What is the current thinking about DOC release by corals via mucus?**
0

 The question may not directly apply to this observation (i.e., that DOC can be lower in backreefs dominated by algae than in offshore water). But there was a flurry of work on coral DOC release that seems to have waned. Where are we on that? What is the consensus, e.g., DOC release in corals vs algae?

Also, has anyone compared DOC conc. in waters around coral and algal dominated substrate when other factors are held constant? I know such comparisons have been made (e.g., Dinsdale 2008) but along environmental gradients, so it wasn't clear whether background conditions or benthic community structure was causing differences in DOC and bacterial communities.


[corals](#) [DOC](#) [algae](#) [reef metabolism](#)

 [John Bruno](#) • 505 • 24 days ago

[Twitter](#) [Facebook](#) [Google+](#) [Email](#)

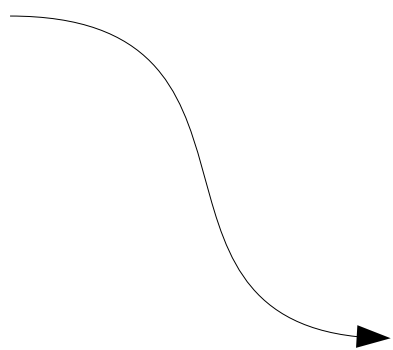
[+ add comment](#)

1 Answer

 To answer your first question succinctly, our work indicates that algae and corals release dissolved organic matter (DOM) of different quality and at different rates. Algae seem to generally have high release rates

Dissemination of raw science

E.g., figshare.com:



Effects of Elevated [CO₂] and Low Soil Moisture on the Physiological Responses of Mountain Maple (*Acer spicatum* L.) Seedlings to Light

	A	B	C	D	E
1	Plant ID	Trmmol		Plant ID	Trmmol
2	AHLHMR11	1.66		EHLHMR11	0.44
3		1.98			0.606
4		2.13			0.754
5		1.95			0.855
6		1.61			0.94
7		1.41			1.01
8		1.18			0.979
9					

0 views 0 shares cites coming soon

Published on 17 Oct 2013 - 05:15 (GMT)
Filesize is 19.01 KB

This data is part of a published article:
[Effects of Elevated \[CO₂\] and Low Soil Moisture on the Physiological Responses of Mountain Maple \(*Acer spicatum* L.\) Seedlings to Light](#)

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Categories

- Biological Sciences
- Ecology
- Earth Sciences

Authors

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Qing-Lai Dang

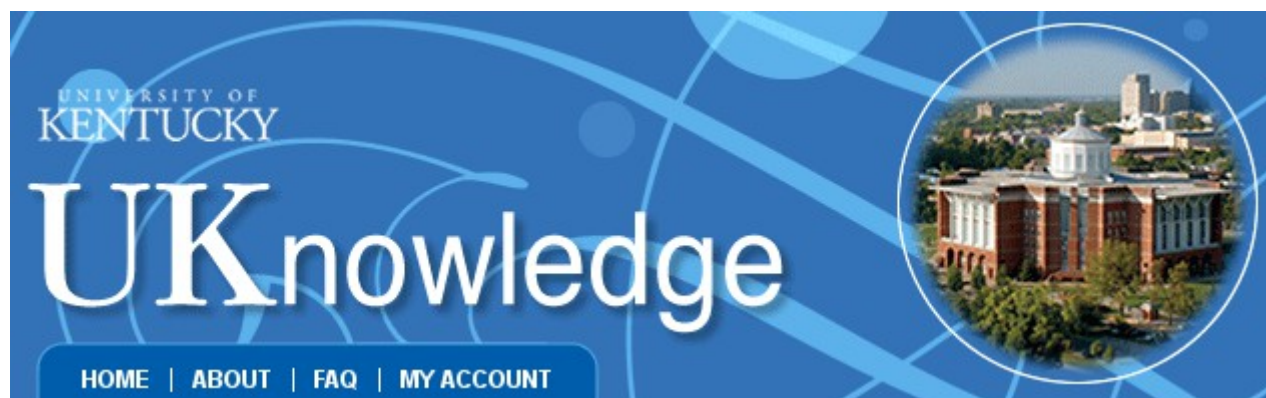
Share this: [f Share](#) 0 [Tweet](#) 0 [+1](#) 0 [Embed*](#)

Cite this: Effects of Elevated [CO₂] and Low Soil Moisture on the Physiological Responses of Mountain Maple (*Acer spicatum* L.) Seedlings to Light Table_S1.xlsx. Gabriel Danyagri, Qing-Lai Dang. PLOS ONE. 10.1371/journal.pone.0076586.s001. Retrieved 19:37, Oct 18, 2013 (GMT).

[Enlarge](#) [Download](#)

Faster dissemination

Through open access subject and institutional repositories.



Sources:

<http://uknowledge.uky.edu/>

<http://arxiv.org/>

<http://www.ssrn.com/>

<http://opendoar.org/>

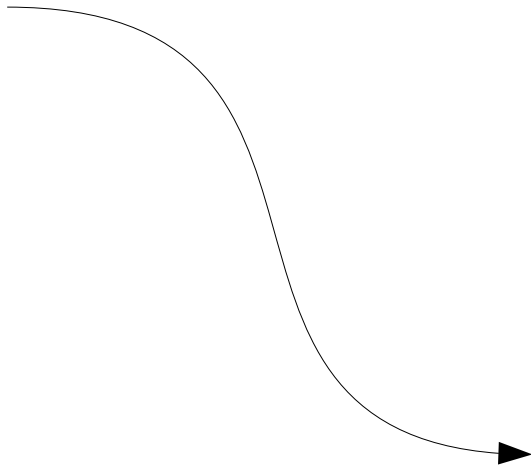
OpenDOAR

The Directory of Open Access Repositories - OpenDOAR

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Faster impact

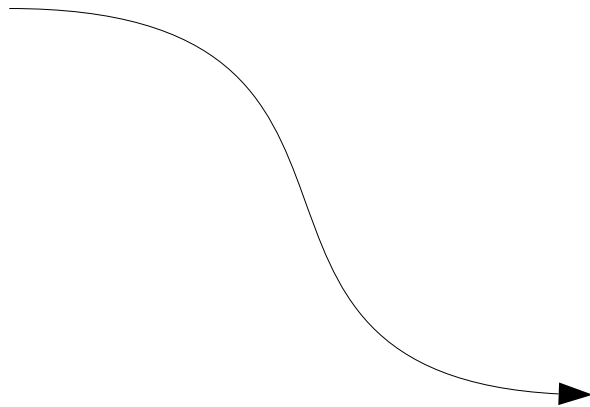
Cancer (ACS Journal)



The screenshot shows the Twitter profile page for 'ACS Journal Cancer' (@JournalCancer). The profile summary includes a green profile picture with the word 'Cancer' written on it. The name 'ACS Journal Cancer' is underlined, and the handle '@JournalCancer' is below it. The bio states: 'This is the official Twitter page for Cancer, a journal of the American Cancer Society'. The location is 'Atlanta, Georgia, USA' and the website is 'canceronlinejournal.com'. The statistics show 423 tweets, 15 following, and 10,954 followers. There is a 'Follow' button. Below the profile, it shows 'Followed by Science News.' and a recent tweet from 'ACS Journal Cancer' (@JournalCancer) about risk models and molecular diagnostics, posted 25 minutes ago. The tweet includes a link to 'ow.ly/pXscF' and a 'Details' link.

Broader impact

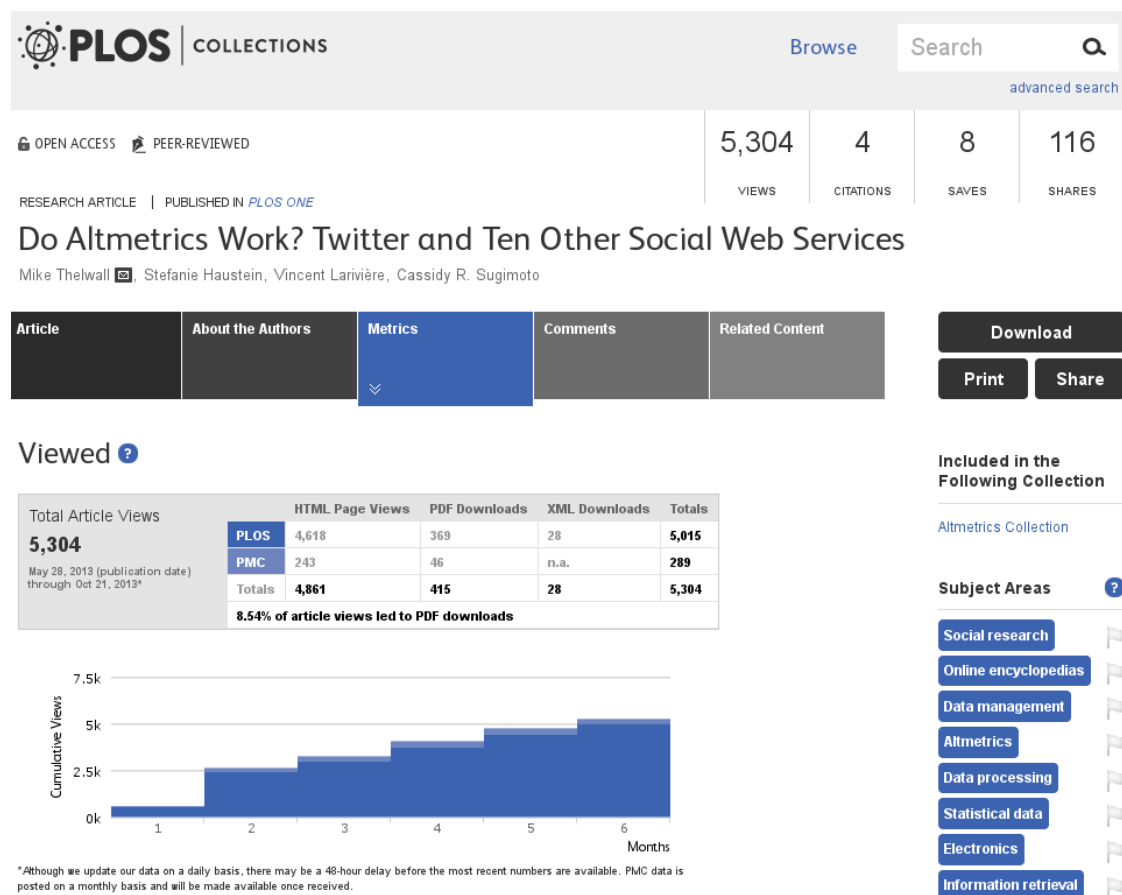
Dissemination



The screenshot shows a vertical list of tweets from the account @JournalCancer. Each tweet includes a profile picture, the user's name and handle, the date, and the text of the tweet. The tweets are as follows:

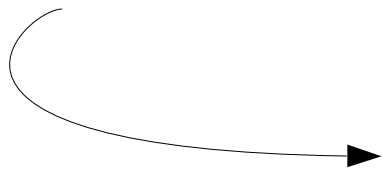
- ACS Journal Cancer @JournalCancer** (15 Oct): Body mass index and socioeconomic status measured in adolescence, country of origin, etc. ow.ly/pQDxH
- Michael Misialek, MD @DrMisialek** (14 Oct): Overweight kids at risk for esophageal and gastric #cancer mnt.to/4hmM via @mnt_cancer @JournalCancer
- Michael Misialek, MD @DrMisialek** (14 Oct): HPV infections among teen girls on the decline @JournalCancer onlinelibrary.wiley.com/doi/10.1002/cn...
- Chris McBrearty @chris1mcb** (11 Oct): Great. @JournalCancer: Supplement: A Prospective Surveillance Model for Rehabilitation for Women With #BreastCancer. ow.ly/pJ2RD
- Michael Misialek, MD @DrMisialek** (14 Oct): #Lungcancer patients with an abnormal gene benefit from targeted therapy #lcsm @JournalCancer onlinelibrary.wiley.com/doi/10.1002/cn...
- AA&MDSIF @aamdsif** (10 Oct): RT @JournalCancer: The October 15th issue of Cancer is available now at ow.ly/pzTtM.
- Jessie Gruman @jessiegruman** (20 Sep): Basic activities of daily life compromised for older women w/ #breastcancer, esp Black women [study. @JournalCancer] bit.ly/1gliGtz
- ACSNews @ACSNews** (20 Sep): From @JournalCancer: Racial gap in mammography screening disappears with equal access to health care ht.ly/p3HgZ

And impact that's measurable:



Open peer review

PeerJ.com



PeerJ

Review History for [A new species of long-necked turtle \(Pleurodira: Chelidae: *Chelodina*\) from the late Miocene Alcoota Local Fauna, Northern Territory, Australia](#)

Revision 2

Andrew Farke · Sep 5, 2013 · Academic Editor

ACCEPT

Thank you for your quick attention and flexibility on the last round of comments!

Download Revision 2 (PDF) Download author's rebuttal letter

Symbolic

Bibliometrics coined in a journal article

JOURNAL OF DOCUMENTATION

Vol. 25, no. 4

STATISTICAL BIBLIOGRAPHY OR BIBLIOMETRICS?

The term *statistical bibliography* seems to have been first used by E. Wyndham Hulme in 1922 when he delivered two lectures as the Sandars Reader in Bibliography at the University of Cambridge. Subsequently the lectures were published as a book.¹ Although the debt has never been explicitly recognized by means of citations, Hulme anticipated modern work on the history of science. He used the term to mean the illumination of the processes of science and technology by means of counting documents. Hulme both summarized the results of Cole and Eales² and produced original work on the growth of UK patents (relating these to social processes in the UK) and on the changes displayed in the *International Catalogue of Scientific Literature* (relating changes in subject and country production of literature to international developments).

Altmetrics coined in a tweet



Jason Priem
@jasonpriem

I like the term [#articlelevelmetrics](#), but it fails to imply *diversity* of measures. Lately, I'm liking [#altmetrics](#).

← Reply ↻ Retweet ★ Favorite ⋮ More

3 RETWEETS 17 FAVORITES

10:28 PM - 28 Sep 10

Reply to @jasonpriem

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