



# SocialCite

Because not all citations are created equal

INTERNATIONAL ASSOCIATION OF SCIENTIFIC, TECHNICAL & MEDICAL PUBLISHERS  
The voice of research publishing since 1969

*stm*

# Quality vs. Quantity

- More citations across the literature
  - **2.6%** inflation rate
- More references per paper
  - From **8.4** in 1970 to **34.63** in 2005, and growing
- A high level of traversals and consideration
  - **~150 million** clicks on citations each year
- Less monitoring of the quality of citations
  - Quality is multidimensional
- No network tool across citations
- Impact factor remains a blunt instrument in the networked era

## How citation distortions create unfounded authority: analysis of a citation network

Steven A Greenberg, associate professor of neurology

Children's Hospital Informatics Program and Department of Neurology, Brigham and Women's Hospital, Harvard Medical School, 75 Francis Street, Boston, MA 02115, USA  
Correspondence: [sagreenberg@rics.bwh.harvard.edu](mailto:sagreenberg@rics.bwh.harvard.edu)

Cite this as: *BMJ* 2009;339:  
doi:10.1136/bmj.b2680

### ABSTRACT

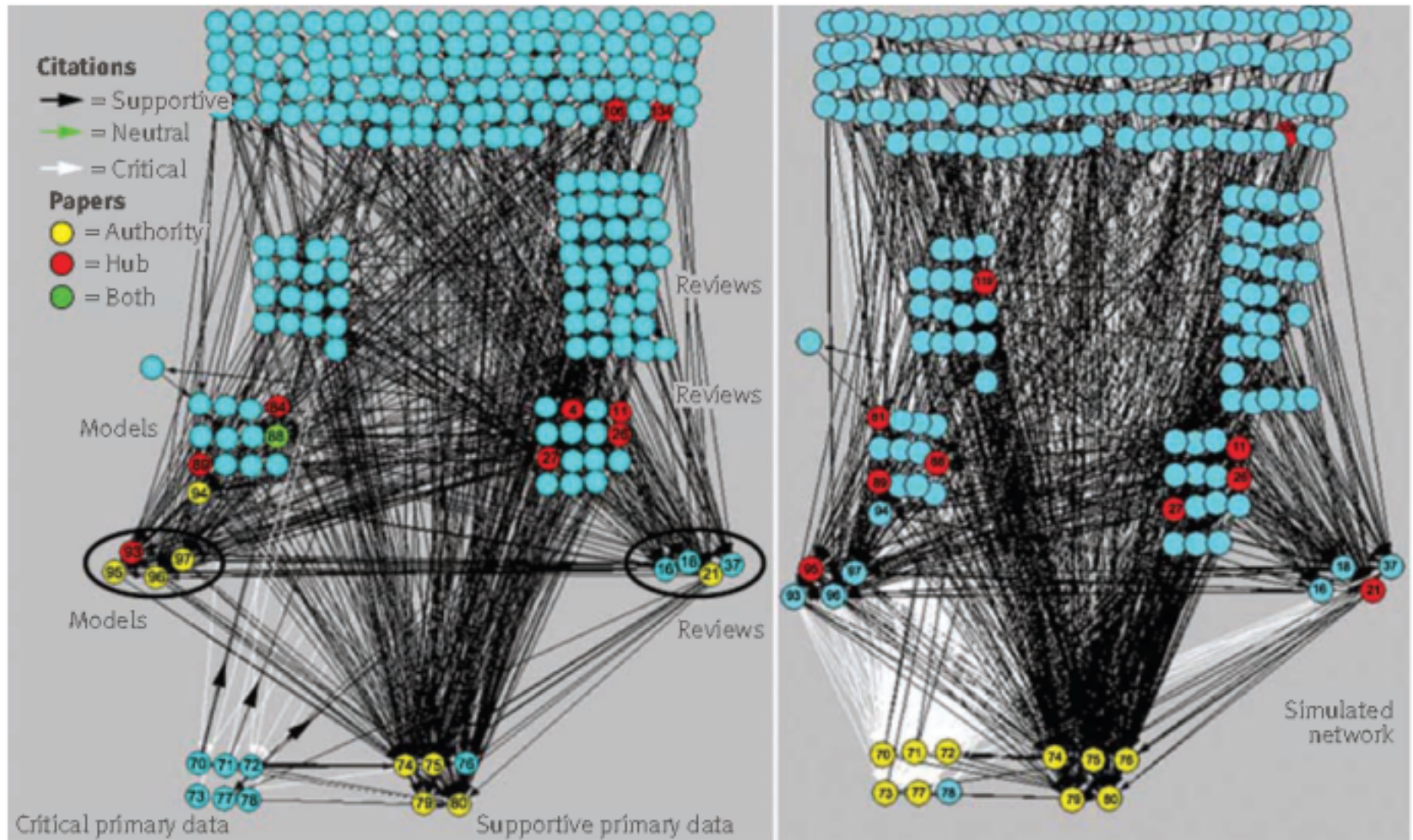
**Objective** To understand belief in a specific scientific

The belief system studied is that a protein,  $\beta$  amyloid, known for its role in injuring brain in Alzheimer's dis-

**This popular Greenberg article** offered evidence that inappropriate or inaccurate citation can cause serious distortions – including bias, amplification, and invention. Erroneous and unfounded claims can be perpetuated, setting back scientific progress and affecting how patients are treated.

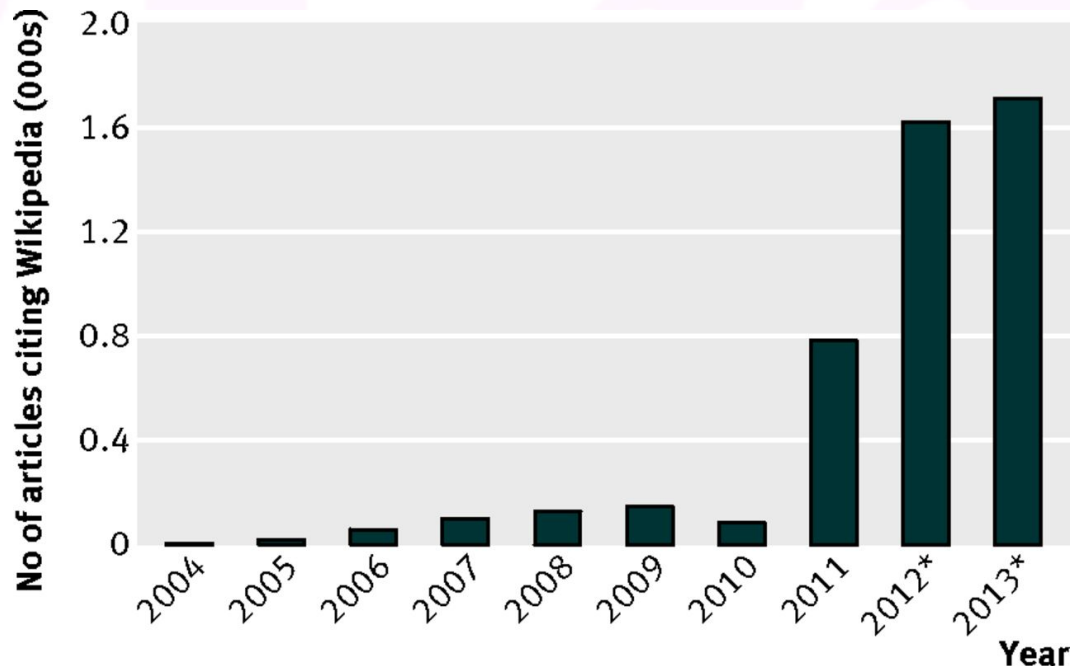
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BMJ 2009; 339 doi: <http://dx.doi.org/10.1136/bmj.b2680> (Published 21 July 2009)  
<http://www.bmj.com/content/339/bmj.b2680>



# Citing Wikipedia

Journals found citing Wikipedia include *Nature*, *Science*, *Journal of Clinical Oncology*, *Annals of Internal Medicine*, *Circulation*



References that anyone can edit: review of Wikipedia citations in peer reviewed health science literature  
BMJ 2014; 348 doi: <http://dx.doi.org/10.1136/bmj.g1585> (Published 6 March 2014)

# Untapped Potential

- Citations point to evidence, bolster arguments
- Citation lists represent a firm intellectual footprint left by the researchers
- Citations can influence reader behavior
  - Rhetorical power can be significant
- Citations are now linkable in the network age
- ORCID, CrossRef, and other tools make it possible to reconcile citations to authors, journals, and papers



↵ Chikashige, Y., C. Tsutsumi, M. Yamane, K. Okamasa, T. Haraguchi, Y. Hiraoka . 2006. Meiotic proteins bqt1 and bqt2 tether telomeres to form the bouquet arrangement of chromosomes. *Cell*. 125:59–69. doi:10.1016/j.cell.2006.01.048 » [CrossRef](#) » [Medline](#)

**SocialCite** Appropriate Citation? [👍](#) [👎](#) Strong Evidence? [👍](#) [👎](#) Add More >

↵ Chytilova, E., J. Macas, E. Sliwinska, S.M. Rafelski, G.M. Lambert, D.W. Galbraith . 2000. Nuclear dynamics in *Arabidopsis thaliana*. *Mol. Biol. Cell*. 11:2733–2741. » [Abstract/FREE Full Text](#)

**SocialCite** Appropriate Citation? [👍](#) [👎](#) Strong Evidence? [👍](#) [👎](#) Add More >

↵ Clough, S.J., A.F. Bent . 1998. Floral dip: A simplified method for *Agrobacterium*-mediated transformation of *Arabidopsis thaliana*. *Plant J*. 16:735–743. doi:10.1046/j.1365-313x.1998.00343.x » [CrossRef](#) » [Medline](#)

**SocialCite** Appropriate Citation? [👍](#) [👎](#) Strong Evidence? [👍](#) [👎](#) Add More >

↵ Crisp, M., Q. Liu, K. Roux, J.B. Rattner, C. Shanahan, B. Burke, P.D. Stahl, D. Hodzic . 2006. Coupling of the nucleus and cytoplasm: Role of the LINC complex. *J. Cell Biol*. 172:41–53. doi:10.1083/jcb.200509124 » [Abstract/FREE Full Text](#)

**SocialCite** Appropriate Citation? [👍](#) [👎](#) Strong Evidence? [👍](#) [👎](#) Add More >

↵ Dahl, K.N., A.J. Ribeiro, J. Lammerding . 2008. Nuclear shape, mechanics, and mechanotransduction. *Circ. Res*. 102:1307–1318. doi:10.1161/CIRCRESAHA.108.173989 » [Abstract/FREE Full Text](#)

**SocialCite** Appropriate Citation? [👍](#) [👎](#) Strong Evidence? [👍](#) [👎](#) Add More >

↵ Dittmer, T.A., N.J. Stacey, K. Sugimoto-Shirasu, E.J. Richards . 2007. *LITTLE NUCLEI* genes affecting nuclear morphology in *Arabidopsis thaliana*. *Plant Cell*. 19:2793–2803. doi:10.1105/tpc.107.053231 » [Abstract/FREE Full Text](#)

**SocialCite** Appropriate Citation? [👍](#) [👎](#) Strong Evidence? [👍](#) [👎](#) Add More >

↵ Folkers, U., J. Berger, M. Hülkamp . 1997. Cell morphogenesis of trichomes in *Arabidopsis*: Differential control of primary and secondary branching by branch initiation regulators and cell growth. *Development*. 124:3779–3786. » [Abstract](#)

**SocialCite** Appropriate Citation? [👍](#) [👎](#) Strong Evidence? [👍](#) [👎](#) Add More >

**Cited 155 times**

**Cited 71 times**

**Cited 8,401 times**

**Cited 401 times**

**Cited 172 times**

**Cited 58 times**

**Cited 107 times**

# A New Quality Metric

Reframes the conversation around citation metrics from impact factor to new measures of quality and care at the article, author, and journal levels

- SocialCite **Care Index**

Does the journal/author consistently publish articles with citations that are rated as appropriate; free of distortion or expansion?

Which journals/authors have the highest rankings of care in what they cite, as well as how they are cited?

- SocialCite **Quality Index**



Does the journal/author consistently publish articles that are rated as providing strong, high-quality evidence?

Which journals/authors cite the best evidence, or are the sources of the best evidence?





# Citing Journal: *Journal of Proximal Research*

↪ Chytilova, E., J. Macas, E. Sliwinska, S.M. Rafelski, G.M. Lambert, D.W. Galbraith . 2000.  
Nuclear dynamics in *Arabidopsis thaliana*. *Mol. Biol. Cell.* 11:2733–2741.  
» [Abstract/FREE Full Text](#)

SocialCite Appropriate Citation? 75% 0% Strong Evidence?   Add More >

↪ Clough, S.J., A.F. Bent . 1998. Floral dip: A simplified transformation of *Arabidopsis thaliana*. *Plant J.* 16: doi:10.1046/j.1365-313x.1998.00343.x » [CrossRef](#)

SocialCite Appropriate Citation?   Strong

**Critiques Cited Work** – Critical of the cited work;  
“negative citation”

**Cites Evidence** – Citation backed by research evidence

**Cites Assertions** – Citation of a claim/argument

**Cites Methods** – Citation to support research methods

**Cites Authority** – Citation backed by person of authority

# SocialCite PUBLISHER DASHBOARD

Welcome back, *J Cell Biol*  
Data last updated May 1, 2014

All data are preliminary and provisional. Certified rankings are released annually. To purchase the latest certified rankings, click here.

## Articles Most Often Cited Inappropriately

- In This Journal
- In This Field

## Articles Rated by Strength of Evidence

- In This Journal
- In This Field

## Articles Most Often Cited Critically

- In This Journal
- In This Field

## Authors Most Often Associated with Quality

- In This Journal
- In This Field

## Authors Whose Articles Most Often Receive Critical (Negative) Citations

- In This Journal
- In This Field

## Usage of SocialCite

Citations rated since January 1, 2014: 3,718  
Percent rating evidence as strong: 63%  
Percent rating citations appropriate: 58%

Total citations eligible for rating, this journal: 45,619  
Percent of citations rated, this journal: 8%  
Percent of citations rated, this field: 12%

Average for this field – strong evidence rating: 54%  
Average for this field – appropriate citation rating: 49%  
Average across the literature – strong evidence: 61%  
Average across the literature – appropriate citation: 52%

## Users of SocialCite

**This Journal**  
US residents: 46%  
Academic affiliation: 78%

**This Field**  
US residents: 44%  
Academic affiliation: 74%

# SocialCite READER DASHBOARD

Welcome back, Kent Anderson  
Data last updated May 1, 2014

Sort by Name

Sort by  
Volatility

Sort by Quality  
Index

Sort by  
Care Index

All data are preliminary and provisional. Certified rankings are released annually. To purchase the latest certified rankings, click here.

## Citations You've Rated

### *Journal of the American Medical Association (JAMA)*

Lewiecki EM, Miller PD, McClung MR, et al. Two-year treatment with denosumab (AMG 162) in a randomized phase 2 study of postmenopausal women with low BMD. *JAMA* 2007;22:1832-1841. [\[Source Article\]](#)

**SocialCite:**      Appropriate Citation? 57% 43%      High-Quality Science?  
96% 4%

## Citations You've Rated

### *British Medical Journal (BMJ)*

Lewiecki EM, Miller PD, McClung MR, et al. Two-year treatment with denosumab (AMG 162) in a randomized phase 2 study of postmenopausal women with low BMD. *BMJ* 2007;22:1832-1841. [\[Source Article\]](#)

**SocialCite:**      Appropriate Citation? 32% 68%      High-Quality Science?  
96% 4%

## Journals Using Citations You've Rated

### *Journal of the American Medical Association (JAMA)*

Citation Appropriateness Rank in Domain: 1 of 57  
(Nearly all citations in this journal are rated as "Appropriate")

Citation Quality Rank in Domain: 3 of 57  
(Nearly all citations in this journal point to science rated as "High Quality")

Quality of Its Own Science in Domain: 5 of 57  
(When this journal is cited elsewhere, the science it published is almost always rated as "High Quality")

**PDF**



**Adobe**

patients in the intensive care unit (ICU). Hospitals commonly screen patients in the ICU for nasal carriage of MRSA and use contact precautions with carriers.[2-6](#) Nine states mandate such screening.[7](#)

**Comment [KA3]:** This citation has been used in a misdirecting manner in multiple manuscripts, and may require extra editorial attention.

Decolonization has been used to reduce transmission and prevent disease in *S. aureus* carriers, primarily carriers of methicillin-resistant strains but also carriers of methicillin-sensitive ones.[8,9](#)

**Comment [KA3]:** This citation has been used in a misdirecting manner in multiple manuscripts, and may require extra editorial attention.

**Comment [KA4]:** This citation has been repeatedly rated as pointing to low-quality evidence. It may require extra editorial attention.

# Targeted versus Universal Decolonization to Prevent ICU Infection

Susan S. Huang, M.D., M.P.H., Edward Septimus, M.D., Ken Kleinman, Sc.D., Julia Moody, M.S., Jason Hickok, M.B.A., R.N., Taliser R. Avery, M.S., Julie Lankiewicz, M.P.H., Adrijana

**Comment [KA1]:** This author has been identified multiple times as being associated with papers that have poorly rated or misdirecting citations.

**Comment [KA1]:** This author has been identified multiple times as being associated with papers that have poorly rated or misdirecting citations.

**Comment [KA2]:** This author has been identified multiple times as being associated with papers that receive many critical (negative) citations.



# Participating Publishers

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# Business Model

- **Publishers** – Participation is **free**, paid access to reports and reporting tools
- **Platforms** – **Free** inclusion of the code and **free** access to customization toolbox
- **Individuals** – **Free** access to a personal dashboard, paid access to reports and deeper reporting tools
- **Organizations and institutions** – Paid access to reports and reporting tools
- **Editorial systems** – Small fee per journal for utilization of data via APIs

# Preparing to Launch

- Technology being evaluated by platform providers
- Potential publishing partners being approached
- Planned launch in May 2014
- Contact SocialCite at **socialcite@striatus.org**
- Follow us **@socialcite** on Twitter
- Review the value proposition at **social-cite.org**

# Next Steps

- Expand list of participating pilot publishers
- Continue gathering and analyzing data
- Publish any interesting findings
- Begin integration with manuscript processing systems
- Generate metrics and reports

# SocialCite

Because not all citations are created equal



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*STM*