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Fall October 29, 2013

# The academic impact of research: Current and the future citation trends in developing countries

Nader Ale Ebrahim



Available at: <https://works.bepress.com/aleebrahim/78/>



# Iranian Elite talks

اسرائیلی دمالزی  
برنامه سخنرانی  
نخبگان



Title: The **academic** impact of research: Current and the future citation trends in developing countries

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Organization: Research Support Unit, Centre of Research Services, IPPP, University of Malaya

# Abstract

Writing an article for online distribution in a way that maximized the chances of citation hits, is different from preparing one for print journals in some small, but important, respects. To be cited, articles have to be visible in an electronic environment. Therefore, publishing a high quality paper in scientific journals will be a halfway of receiving citation in the future. The rest of the way is advertising and disseminating the publications by using the proper “Research Tools”. Familiarity with the tools allows the researcher to increase his/her h-index in the short time.

The number of citations has over 30% share in academic ranking. Hence, most of the scientists are looking for a method to increase their citation record. Nader developed and introduced a method for increasing the visibility and impact of the research which directly effects on the number of citations. This talk tends to introduce some of the key points for improving the citation trends in developing countries by presenting the current situation and the future trends.

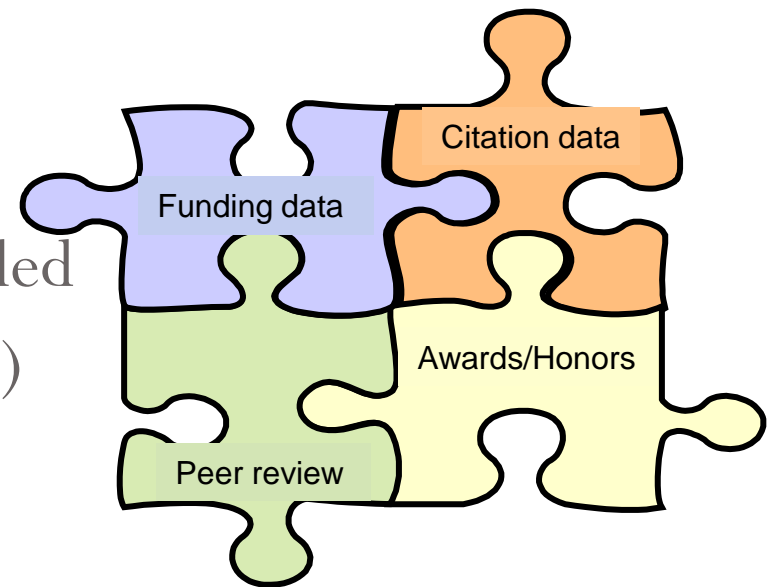
**Keywords:** h-index, Increase citations, Research tools

# Outline

- **Abstract** - where we are today, and where we want to be in the future.
- **Introduction** - Research impact, Trends in scholarly research, A variety of indicators.
- **General explanation** - Why citation metrics?, Why citation is important?
- **Problem Statement** - “Impact Points” gap, H-index differences, Open Access Repositories.
- **Objectives** - Enhancing research visibility and improving citations records.
- **Methodology** - Compare institutions.
- **What is new** - Introduce “[Research Tools](#)” for increasing the visibility and impact of the research.
- **Result** – The gap between the developed and developing countries.
- **Conclusion & Future Works** – Use “[Research Tools](#)” and the field rankings table as a reference.

# Research impact

- # of and value of Grants awarded
- # of awards (e.g. Nobel Prizes)
- Peer evaluation
- Publication counts
- Citation counts/citation metrics
  - Citation metrics are one piece of the research performance puzzle.
- Combination of factors
  - None of these measure works perfectly on its own, there are always anomalies and human judgment is required to interpret the results



Ann Kushmerick (2013), Using bibliometrics in research evaluation: An Introduction, Research Evaluation and Bibliometric Data, Thomson Reuters

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# A variety of indicators

	Metric	Calculation	Evaluator Questions
<b>Productivity</b>	<ul style="list-style-type: none"> <li>• # papers</li> <li>• share of papers in field</li> </ul>	<ul style="list-style-type: none"> <li>• # papers</li> <li>• # papers in field/ papers in field</li> </ul>	<ul style="list-style-type: none"> <li>• What is the research output of X? (a country, subject, researcher, etc.)</li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>• # citations</li> <li>• h-index</li> </ul>	<ul style="list-style-type: none"> <li>• # citations</li> <li>• Number of papers (N) with at least N citations each.</li> </ul>	<ul style="list-style-type: none"> <li>• What is the overall impact and/or productivity of a body of work?</li> </ul>
<b>Influence</b>	<ul style="list-style-type: none"> <li>• Average citation rate (CPP)</li> <li>• Percent of papers cited</li> </ul>	<ul style="list-style-type: none"> <li>• Total citations/Total papers</li> <li>• # papers with at least one citation/ Total # papers in population</li> </ul>	<ul style="list-style-type: none"> <li>• What is the rate at which a body of work is cited?</li> <li>• How many papers get cited? Never get cited?</li> </ul>
<b>Relative Impact</b>	<ul style="list-style-type: none"> <li>• Journal performance ratio</li> <li>• Category performance ratio</li> <li>• Percentile in category and mean percentile</li> <li>• % papers in top x% of their field</li> </ul>	<ul style="list-style-type: none"> <li>• Sum of citations/sum of journal or category expected citation rates</li> <li>• Percentile placement of article within a journal category</li> </ul>	<ul style="list-style-type: none"> <li>• Has this body of work performed better than average vis-à-vis the journals or scientific disciplines represented?</li> <li>• How has this body of work performed compared to the disciplines represented?</li> <li>• What proportion of a body of work achieves a specific level of performance?</li> </ul>

# Trends in scholarly research

- Competition for government research funding *increasing*  
Available funding *decreasing*
- Competition for top research faculty is on the rise
- Accountability:
  - Research spending
  - Demonstrating return on investment (ROI)
- Proving the institution's quality of research to:
  - Prospective students
  - Prospective faculty members/research staff
  - Investors/donors

Ann Kushmerick (2013), Using bibliometrics in research evaluation: An Introduction, Research Evaluation and Bibliometric Data, Thomson Reuters

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# Why citation metrics?

- The primary and most common way to *quantitatively* track and measure research outcomes.
- Uses data on peer reviewed journals and citations received by those articles.
- Citations are an indicator of an article's impact and usefulness to the worldwide research community; they are the mode by which peers acknowledge each other's research.

Citation metrics are:

- Transparent
- Repeatable
- Easily understood

Ann Kushmerick (2013), Using bibliometrics in research evaluation: An Introduction, Research Evaluation and Bibliometric Data, Thomson Reuters

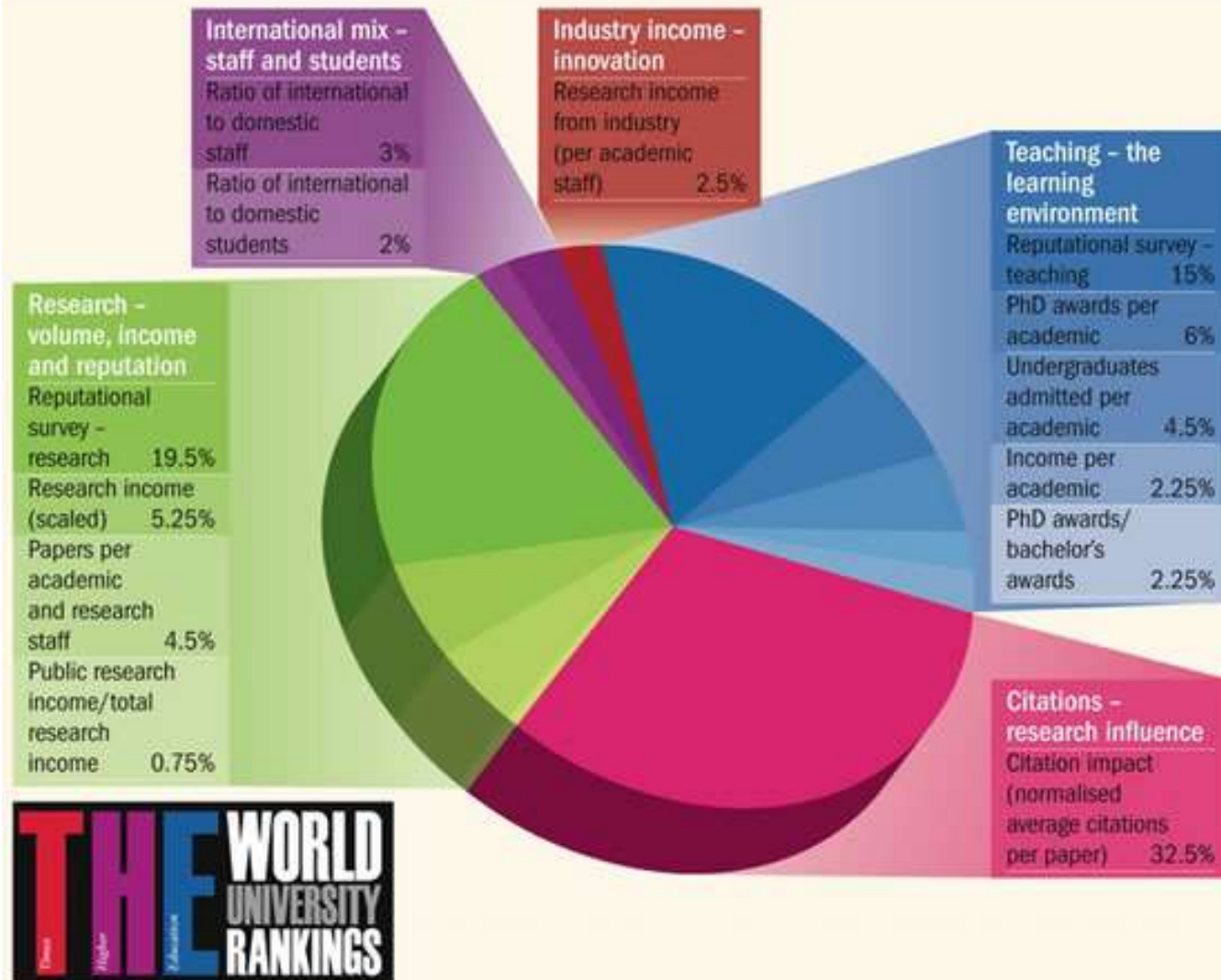
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# Why citation is important?

- In the Times Higher Education World University Rankings system Citations — research influence (worth 32.5 per cent).
- Citations are widely recognised as a strong indicator of the significance and relevance — that is, the impact — of a piece of research.
- However, citation data must be used with care as citation rates can vary between subjects and time periods.
- For example, papers in the life sciences tend to be cited more frequently than those published in the social sciences.
- The rankings this year use normalised citation impact, where the citations to each paper are compared with the average number of citations received by all papers published in the same field and year. So a paper with a relative citation impact of 2.0 is cited twice as frequently as the average for similar papers.
- The data were extracted from the Thomson Reuters resource known as Web of Science, the largest and most comprehensive database of research citations available.
- Its authoritative and multidisciplinary content covers more than 11,600 of the highest-impact journals worldwide. The benchmarking exercise is carried out on an exact level across 251 subject areas for each year in the period 2004 to 2008.
- For institutions that produce few papers, the relative citation impact may be significantly influenced by one or two highly cited papers and therefore it does not accurately reflect their typical performance. However, institutions publishing fewer than 50 papers a year have been excluded from the rankings.
- There are occasions where a groundbreaking academic paper is so influential as to drive the citation counts to extreme levels — receiving thousands of citations. An institution that contributes to one of these papers will receive a significant and noticeable boost to its citation impact, and this reflects such institutions' contribution to globally significant research projects.
- Source: <http://www.timeshighereducation.co.uk/world-university-rankings/2010-2011/analysis-methodology.html>

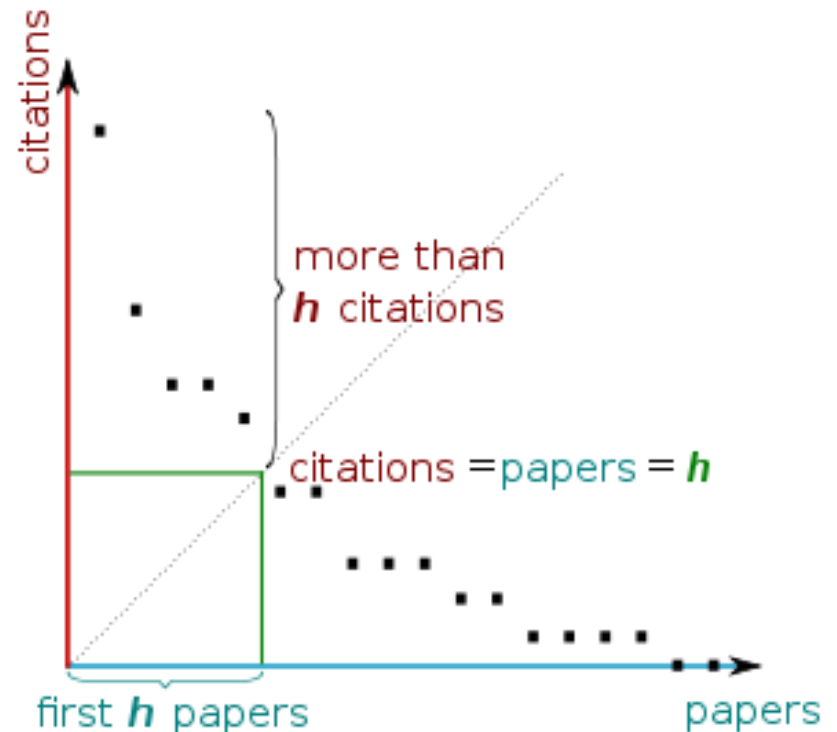
## WEIGHTING SCHEME FOR RANKINGS SCORES



Source: <http://www.timeshighereducation.co.uk/world-university-rankings/2010-2011/analysis-methodology.html>

# $h$ -index (Jorge E. Hirsch- 2005)

- A scientist has index  $h$  if  $h$  of [his/her]  $N_p$  papers have at least  $h$  citations each, and the other  $(N_p - h)$  papers have no more than  $h$  citations each.



H-index from a plot of decreasing citations for numbered papers

A scientist has index  $h$  if  $h$  of his/her  $N_p$  papers have at least  $h$  citations each, and the other  $(N_p - h)$  papers have no more than  $h$  citations each.

As an example, a researcher with an H-index of 15 has (of their total number of publications) 15 papers which have been cited at least 15 times each.

Researcher A

Researcher B

Paper rank	Citations		Paper rank	Citations
1	10		1	1348
2	8		2	159
3	6		3	50
4	5		4	4
5	4		5	4
6	0		6	3

Neither researcher can have an H-index of more than 6.

Source: <http://guides.is.uwa.edu.au/content.php?pid=372347&sid=3050052>

# g-index (Leo Egghe (2006))

- In order to give more weight to highly-cited articles Leo Egghe (2006) proposed the g-index. The g-index is defined as follows:  
*[Given a set of articles] ranked in decreasing order of the number of citations that they received, the g-index is the (unique) largest number such that the top g articles received (together) at least  $g^2$  citations.* Although the g-index has not yet attracted much attention or empirical verification, it would seem to be a very useful complement to the h-index.

Table 2: Publication and citation list of scientist S1

Rank (squared) - Publications	Citations	Sum
1 (1) A	20	20
2 (4) B	10	30
3 (9) C	9	39
4 (16) D	8	47
5 (25) E	6	53
6 (36) F	6	59
7 (49) G	6	65
8 (64) H	5	70
9 (81) I	5	75

Source: [Rousseau, Ronald. "New developments related to the Hirsch index." \(2006\).](#)

# Predicting scientific success

## H-index prediction

Read details in [Acuna, Allesina, Kording, Nature, 489, 201-202 \(2012\)](#)

Save to file

H-index calculator uses BitmapExporter by Mario Klingemann

H-index

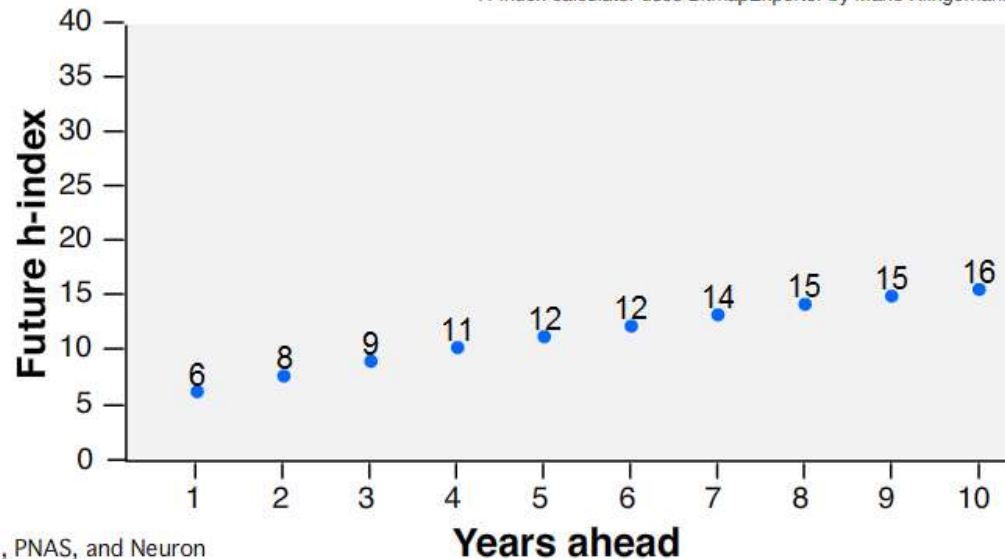
# articles

Years since  
first article

# distinct  
journals

# articles in  
'top' journals\*

Reset features



\* Nature, Science, Nature Neuroscience, PNAS, and Neuron

# distinct journals: number of different journals where you have published in.

**Note:** The equations and the calculator model people that are in [Neurotree](#), have an h-index 5 or more, and are between 5 to 12 years after publishing first article.

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# Web application to calculate the single publication h index



## Web application to calculate the single publication *h* index (and further metrics) based on Google Scholar

by [Andreas Thor](#) (University of Leipzig, Germany) and [Lutz Bornmann](#) (Max Planck Society, Germany)

- 1 Search Google Scholar
- 2 Select **one** publication (you may additionally select duplicates)

virtual teams: a literature review

Search

### Search result for *virtual teams: a literature review*

<input type="checkbox"/>	title	authors	year	citatio...
<input checked="" type="checkbox"/>	Virtual teams: a literature review	N Ale Ebrahim, S Ahmed, ...	2009	61
<input type="checkbox"/>	Virtual teams: a review of current literature and directions for future research	A Powell, G Piccoli, B Ives	2004	862
<input type="checkbox"/>	How do virtual teams process information? A literature review and implications f...	PL Curseu, R Schalk, I W...	2008	54
<input type="checkbox"/>	A typology of virtual teams implications for effective leadership	BS Bell, SWJ Kozlowski	2002	685
<input type="checkbox"/>	Implementing virtual teamworking. Part 1: a literature review of best practice	J Bal, PK Teo	2000	45
<input type="checkbox"/>	Managing virtual teams: A review of current empirical research	G Hertel, S Geister, U Kon...	2005	447
<input type="checkbox"/>	Virtual R&D teams in small and medium enterprises: A literature review	N Ale Ebrahim, S Ahmed, ...	2009	55
<input type="checkbox"/>	Bridging space over time: Global virtual team dynamics and effectiveness	ML Maznevski, KM Chudo...	2000	1211
<input type="checkbox"/>	Leadership in research and development organizations: A literature review and	T Elkina, BT Keller	2002	107

The single publication h index has been introduced by Schubert (2009) as the h-index calculated from the list of citing publications of one single publication.

Source: <http://labs.dbs.uni-leipzig.de/gsh/>

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# WHAT IS A GOOD SCIENTIFIC ARTICLE?

Novelty



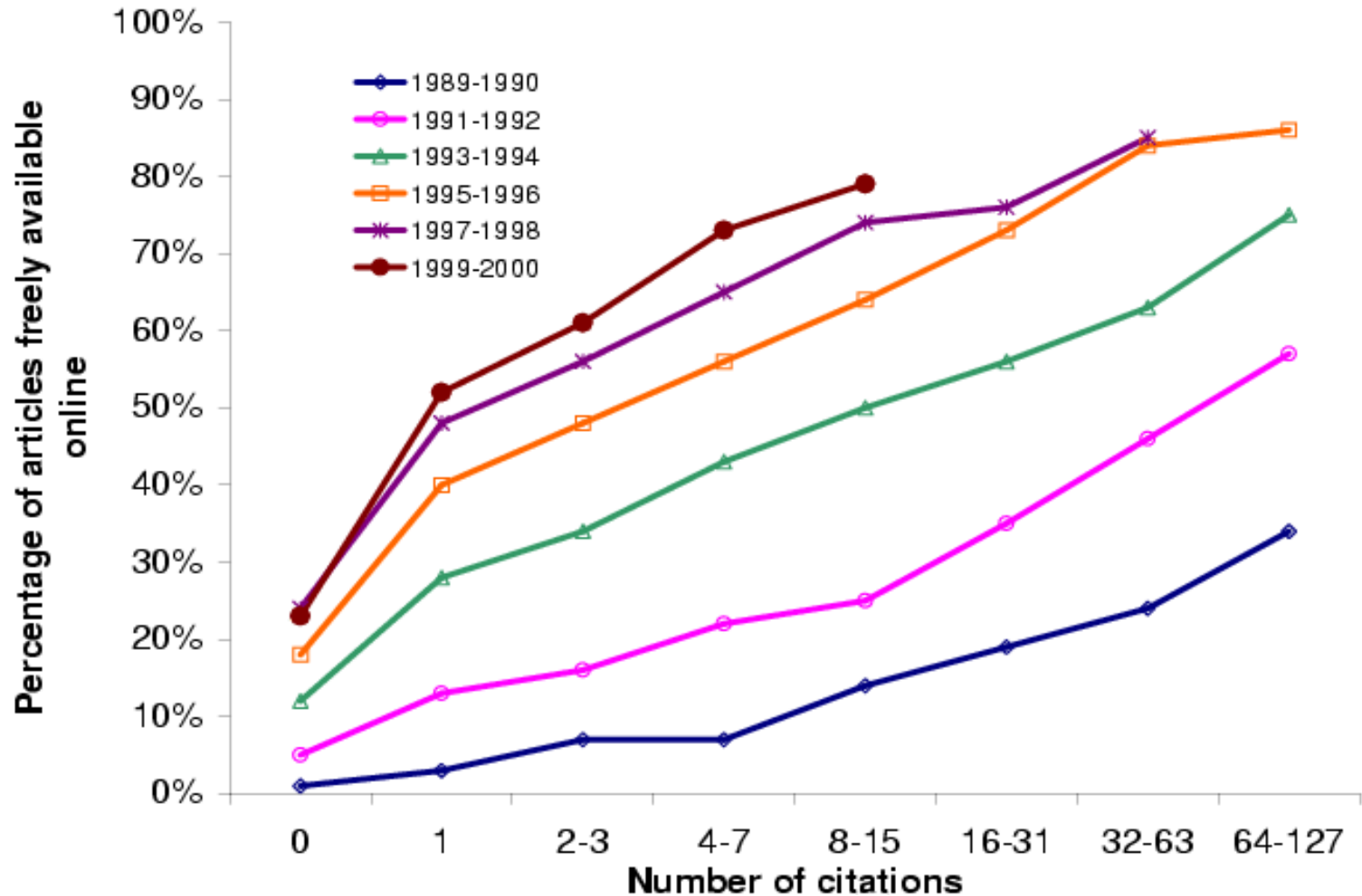
Communication



Source: "[Scientific Writing for Impact Factor Journals](#)" By: Eric Lichtfouse

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# Online or Invisible?



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Source: Steve Lawrence, "Free online availability substantially increases a paper's impact" in: *Nature*, Volume 411, Number 6837, p. 521, 2001

**Increased access**  
**=**  
**Increased downloads**  
**=**  
**Increased citations**  
**=**  
**Increased impact!**

Source: [Rosarie Coughlan, \(August 2011\) "Enhance the Visibility & Impact of Your Research-9 Simple Tips", Accountancy Librarian, Concordia University](#)

# Well-Optimized Abstract:

## **False** Remembering in the **Aged**

Researchers studying human **memory** have increasingly focused on **memory** accuracy in **aging** populations. In this article we briefly review the literature on **memory** accuracy in healthy older adults. The prevailing evidence indicates that, compared to younger adults, older adults exhibit both diminished **memory** accuracy and greater susceptibility to misinformation. In addition, older adults demonstrate high levels of confidence in their **false memories**. We suggest an explanatory framework for the high level of **false memories** observed in older adults, a framework based on the theory that consciously controlled uses of **memory** decline with **age**, making older adults more susceptible to **false memories** that rely on automatic processes. We also point to future research that may remedy such deficits in accuracy.

*This article appears on the first page of results in Google for **false+memory+aged**.*

Source: <http://authorservices.wiley.com/bauthor/seo.asp>

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# Poorly Optimized Abstract:

## **False** *Remembering in the Senior Population*

Researchers studying human **memory** have increasingly focused on its accuracy in senior populations. In this article we briefly review the literature on such accuracy in healthy older adults. The prevailing evidence indicates that, compared to younger adults, older adults exhibit both diminished accuracy and greater susceptibility to misinformation. In addition, older adults demonstrate high levels of confidence in their **false memories**. We suggest an explanatory framework for the high levels observed in older adults, a framework based on the theory that consciously controlled uses of **memory** decline in later life, making older adults more susceptible to **false memories** that rely on automatic processes. We also point to future research that may remedy such deficits in accuracy.


Source: <http://authorservices.wiley.com/bauthor/seo.asp>


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# Compare Keywords

## *“Senior Population” with “Aged”*



**exemplar**  
words in context  beta

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# Compare Keywords

## *“Senior Population” with “Aged”*



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**Results** Title=("Aged")  
Timespan=All years. Databases=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH.

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Source: "[Scientific Writing for Impact Factor Journals](#)" By: Eric Lichtfouse

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# USA's institutions "Impact Points" on ResearchGate






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## Institutions

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USA Impact Points - Total


Search for an institution

1		University of Washington Seattle	Σ 340,632.50
2		University of California, San Francisco	Σ 287,231.62
3		National Institutes of Health	Σ 284,086.53
4		Harvard Medical School	Σ 272,421.72
5		Stanford University	Σ 271,268.70

### Impact Factor - Total




Impact Points are calculated based on which journals a researcher has been published in. This list shows institutions based on the sum of the impact points of publications attributed to them.

### YOUR INSTITUTION

 **University of Malaya**  
Department of Engineering Design and Manufacturing

How do I improve my institution's stats? Show

### TOP 5 BY TOTAL RG SCORE IN MALAYSIA

1		<b>University of Malaya</b> Kuala Lumpur	11,775.65
2		<b>University of Science Malaysia</b> Nibong Tebal	7,415.70
3		<b>Putra University, Malaysia</b> Putrajaya	6,861.13

# Iran's institutions "Impact Points" on ResearchGate

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37
12






## Institutions

Explore stats for thousands of institutions on ResearchGate


Iran Impact Points - Total

**Impact Factor - Total**

Impact Points are calculated based on which journals a researcher has been published in. This list shows institutions based on the sum of the impact points of publications attributed to them.




Rank	Institution Logo	Institution Name	Impact Points
1		Tehran University of Medical Sciences	10,307.02
2		University of Tehran	5,213.34
3		Shiraz University of Medical Sciences	4,049.48
4		Tarbiat Modares University	3,881.38
5		Shahid Beheshti University of Medical Sciences	3,711.51

**YOUR INSTITUTION**

 **University of Malaya**  
Department of Engineering Design and Manufacturing

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# Malaysian's institutions "Impact Points" on ResearchGate

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Search
37
12

## Institutions

Explore stats for thousands of institutions on ResearchGate


Malaysia Impact Points - Total

1		<b>University of Malaya</b>	Σ 8,577.76
2		<b>University of Science Malaysia</b>	Σ 5,254.67
3		<b>Putra University, Malaysia</b>	Σ 3,905.27
4		<b>National University of Malaysia</b>	Σ 2,379.95
5		<b>Universiti Teknologi Malaysia</b>	Σ 869.53

### Impact Factor - Total




Impact Points are calculated based on which journals a researcher has been published in. This list shows institutions based on the sum of the impact points of publications attributed to them.

### YOUR INSTITUTION







 **University of Malaya**  
Department of Engineering Design and Manufacturing












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

# Malaysia's H-index 1996 - 2012

	Country	Documents	Citable documents	Citations	Self-Citations	Citations per Document	H index
1	 United States	7.063.329	6.672.307	129.540.193	62.480.425	20,45	1.380
2	 United Kingdom	1.918.650	1.763.766	31.393.290	7.513.112	18,29	851
3	 Germany	1.782.920	1.704.566	25.848.738	6.852.785	16,16	740
4	 France	1.283.370	1.229.376	17.870.597	4.151.730	15,60	681
5	 Canada	993.461	946.493	15.696.168	3.050.504	18,50	658
6	 Japan	1.776.473	1.734.289	20.347.377	6.073.934	12,11	635

49	 Egypt	89.489	87.658	518.096	106.783	7,56	132
50	 Kenya	16.727	16.044	206.886	34.874	15,09	131
51	 Estonia	19.141	18.774	204.306	38.547	13,58	130
52	 Venezuela	27.138	26.445	204.691	29.729	8,42	130
53	 Puerto Rico	11.209	10.953	150.252	11.819	15,34	129
54	 Malaysia	99.187	97.018	356.918	93.479	7,85	125
55	 Saudi Arabia	58.840	56.534	293.556	45.641	7,11	124
56	 Philippines	13.163	12.796	141.070	15.727	13,38	116
57	 Indonesia	20.166	19.740	146.670	16.149	10,94	112
58	 Pakistan	58.133	55.915	243.958	72.199	6,22	111
59	 Lithuania	24.755	24.434	151.748	37.377	8,61	109

# Iran's H-index 1996 - 2012

	Country	Documents	Citable documents	Citations	Self-Citations	Citations per Document	H index
1	 United States	7.063.329	6.672.307	129.540.193	62.480.425	20,45	1.380
2	 United Kingdom	1.918.650	1.763.766	31.393.290	7.513.112	18,29	851
3	 Germany	1.782.920	1.704.566	25.848.738	6.852.785	16,16	740
4	 France	1.283.370	1.229.376	17.870.597	4.151.730	15,60	681
5	 Canada	802.441	816.402	15.404.148	3.050.504	18,50	458

41	 Slovenia	50.565	49.471	403.209	83.402	9,53	153
42	 Slovakia	56.552	55.454	389.078	82.646	7,78	148
43	 Croatia	57.454	55.909	305.003	71.781	6,45	143
44	 Ukraine	110.291	108.782	452.610	131.479	4,29	142
45	 Bulgaria	45.348	44.609	319.449	56.183	7,80	138
46	 Iran	202.807	197.571	832.211	337.637	8,49	135
47	 Romania	92.264	91.247	396.795	100.983	6,34	135
48	 Colombia	35.890	34.768	228.686	36.843	10,61	133
49	 Egypt	89.489	87.658	518.096	106.783	7,56	132
50	 Kenya	16.727	16.044	206.886	34.874	15,09	131
51	 Estonia	19.141	18.774	204.306	38.547	13,58	130
52	 Venezuela	27.138	26.445	204.691	29.729	8,42	130
53	 Puerto Rico	11.209	10.953	150.252	11.819	15,34	129
54	 Malaysia	99.187	97.018	356.918	93.479	7,85	125

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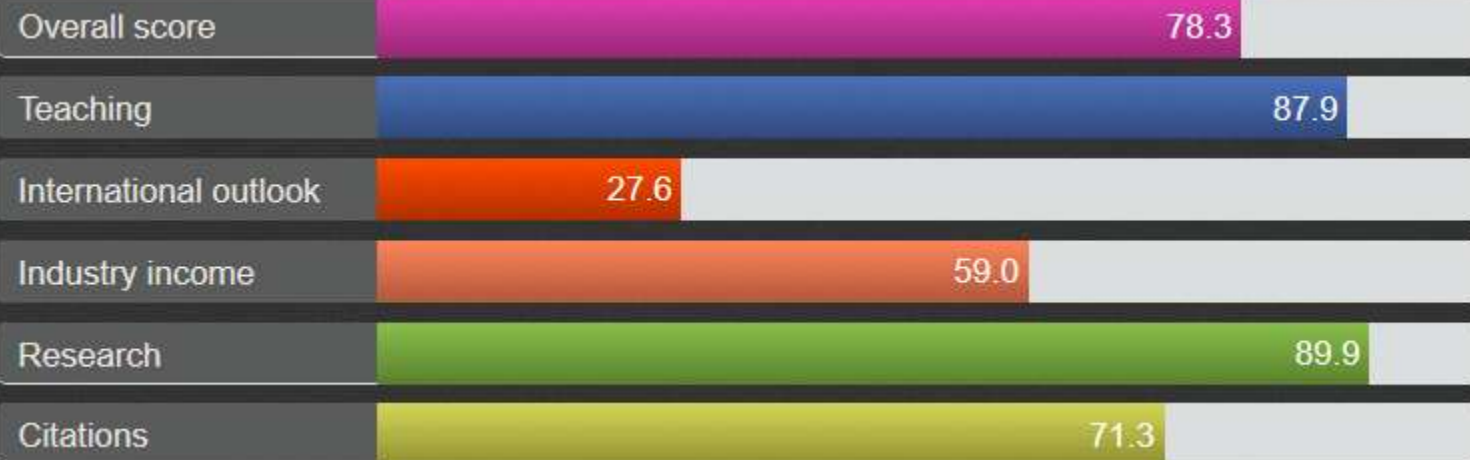
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27

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Region: Asia



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## REGIONAL RANKINGS

Asia

1

## Tokyo, Japan

Overall score

78.3

Teaching

87.9

International outlook

27.6

Industry income

59.0

Research

89.9

Citations

71.3

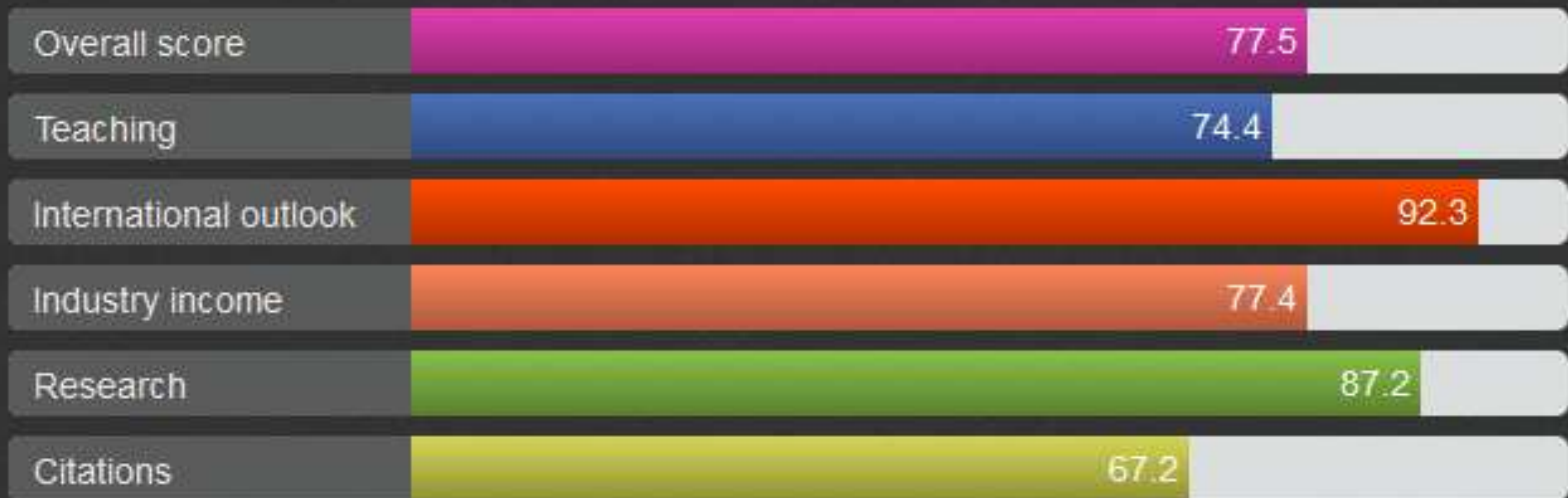


## REGIONAL RANKINGS

Asia

2

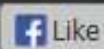
Singapore, Singapore



A message from National University of Singapore



# Sharif University of Technology



0



0



0

## REGIONAL RANKINGS

Asia

42

### Tehran, Iran

Overall score

36.5

Teaching

32.9

International outlook

16.7

Industry income

93.0

Research

42.8

Citations

34.2

# Universiti Kebangsaan Malaysia

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## REGIONAL RANKINGS

Asia

87

### Selangor, Malaysia

Overall score

23.6

Teaching

27.7

International outlook

54.0

Industry income

29.7

Research

13.5

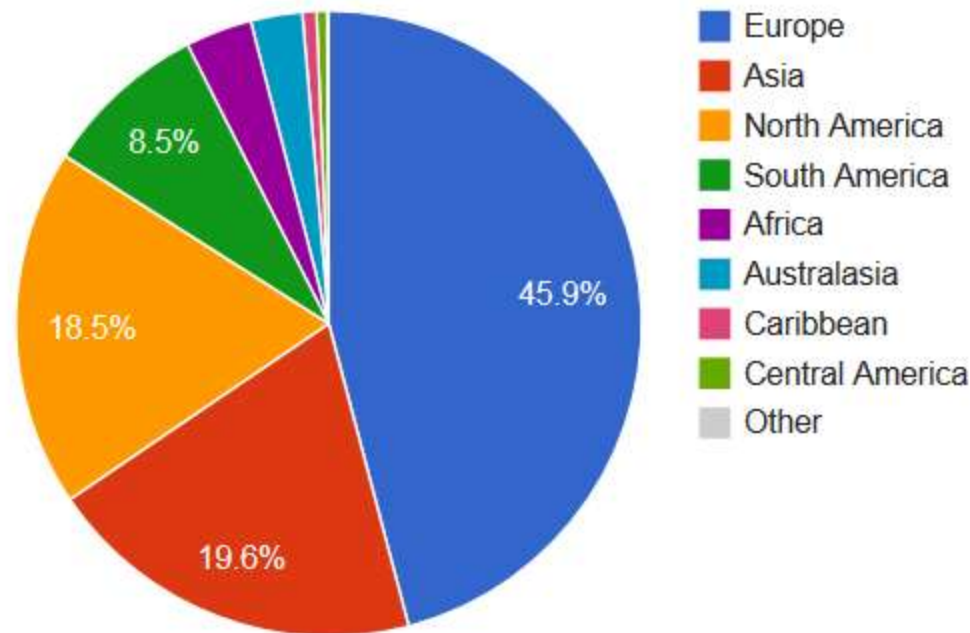
Citations

21.4

# Directory of Open Access Repositories

## Proportion of Repository Organisations by Continent - Worldwide

Proportion of Repository Organisations by Continent - Worldwide



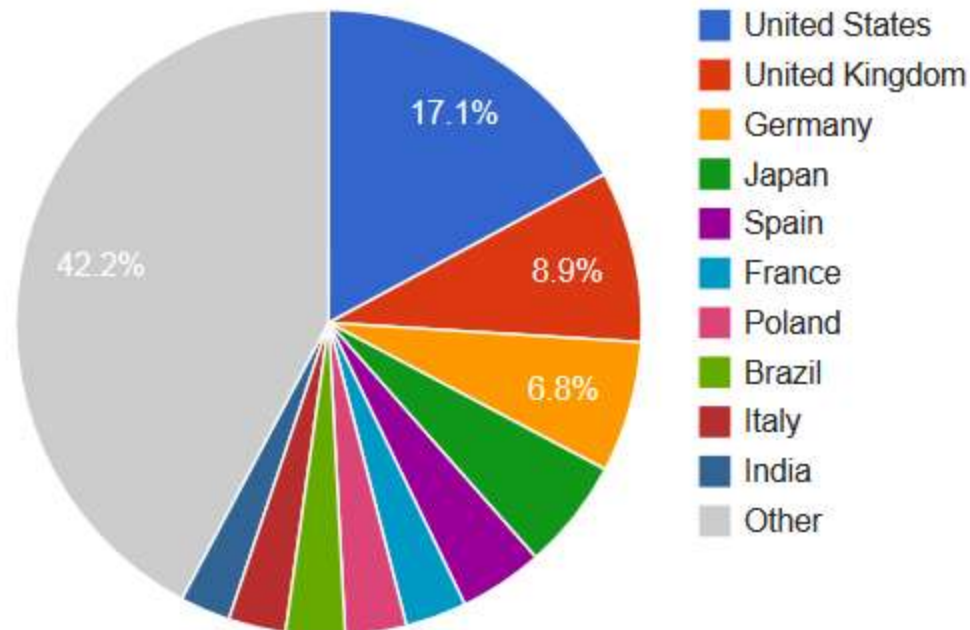
Total = 2064 organisations

OpenDOAR - 18-Oct-2013

# Directory of Open Access Repositories

## Proportion of Repositories by Country - Worldwide

Proportion of Repositories by Country - Worldwide

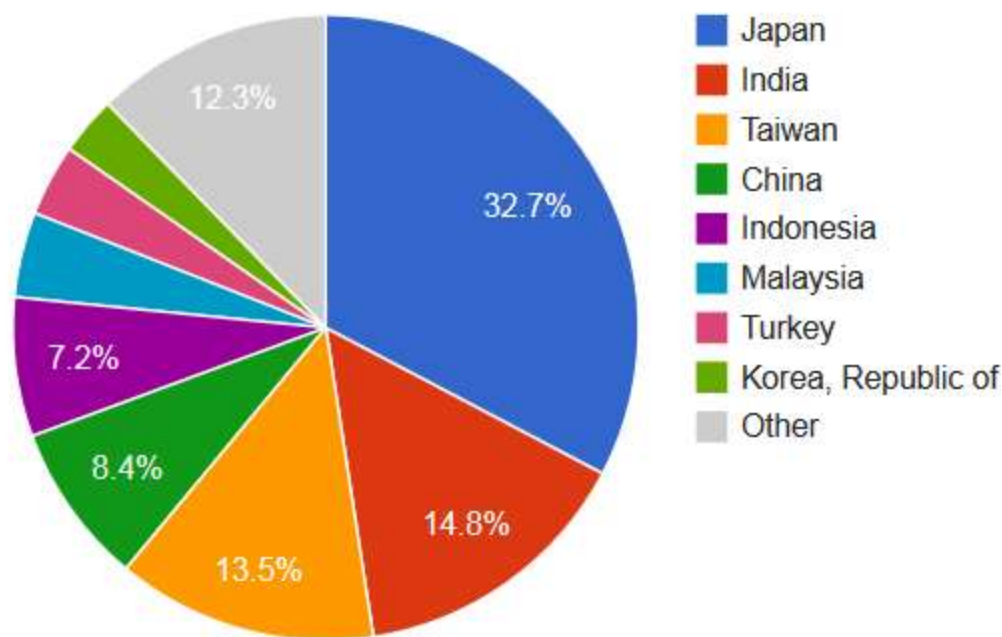


Total = 2463 repositories

OpenDOAR - 18-Oct-2013

# Directory of Open Access Repositories Asia

Proportion of Repositories by Country - Asia

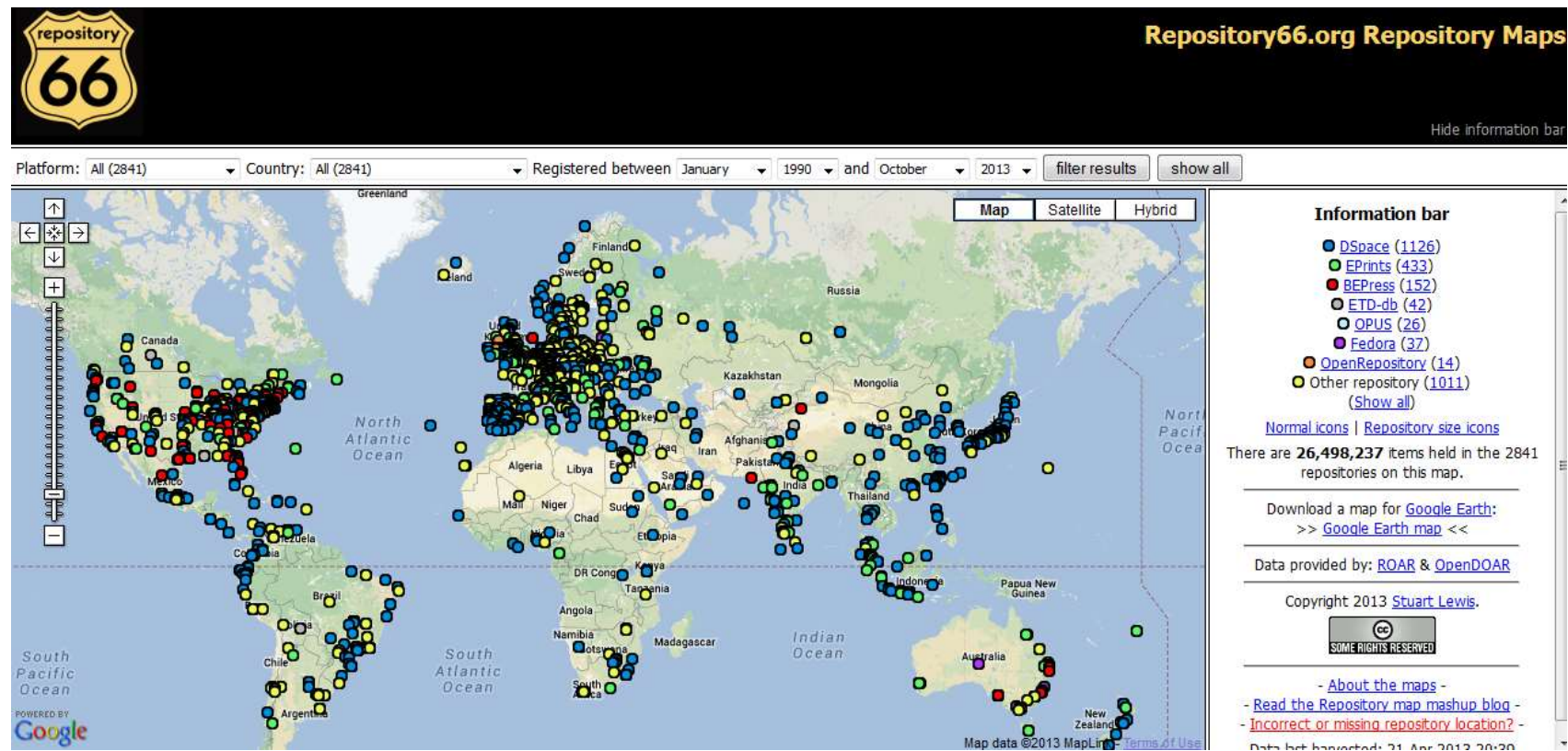


Total = 431 repositories

OpenDOAR - 18-Oct-2013



# Repositories map



# Regional interest in H-Index



Data retrieved from Google Trend on 18 October 2013

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# Compare Institutions

## Time Period: 1981-2012 Cumulative

Institution	Web of Science Documents <a href="#">View Graph</a>	Times Cited <a href="#">View Graph</a>	Cites per Document (Impact) <a href="#">View Graph</a>	% Documents Cited <a href="#">View Graph</a>	Impact Relative to World <a href="#">View Graph</a>	% Documents in World <a href="#">View Graph</a>	% Documents Cited Relative to World <a href="#">View Graph</a>	Aggregate Performance Indicator <a href="#">View Graph</a>
AUSTRALIAN NATL UNIV	50,428	1,177,826	23.36	88.36	1.34	0.20	1.09	1.34
NATL UNIV SINGAPORE	62,323	890,783	14.29	83.50	0.82	0.25	1.03	1.18
SHARIF UNIV TECHNOL	8,353	55,769	6.68	70.30	0.38	0.03	0.87	0.96
UNIV MALAYA	13,692	85,028	6.21	66.29	0.36	0.06	0.82	0.77

Source: InCites – Data retrieved on 26 June 2013

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# Compare Institutions

## Time Period: 2008-2012 Cumulative

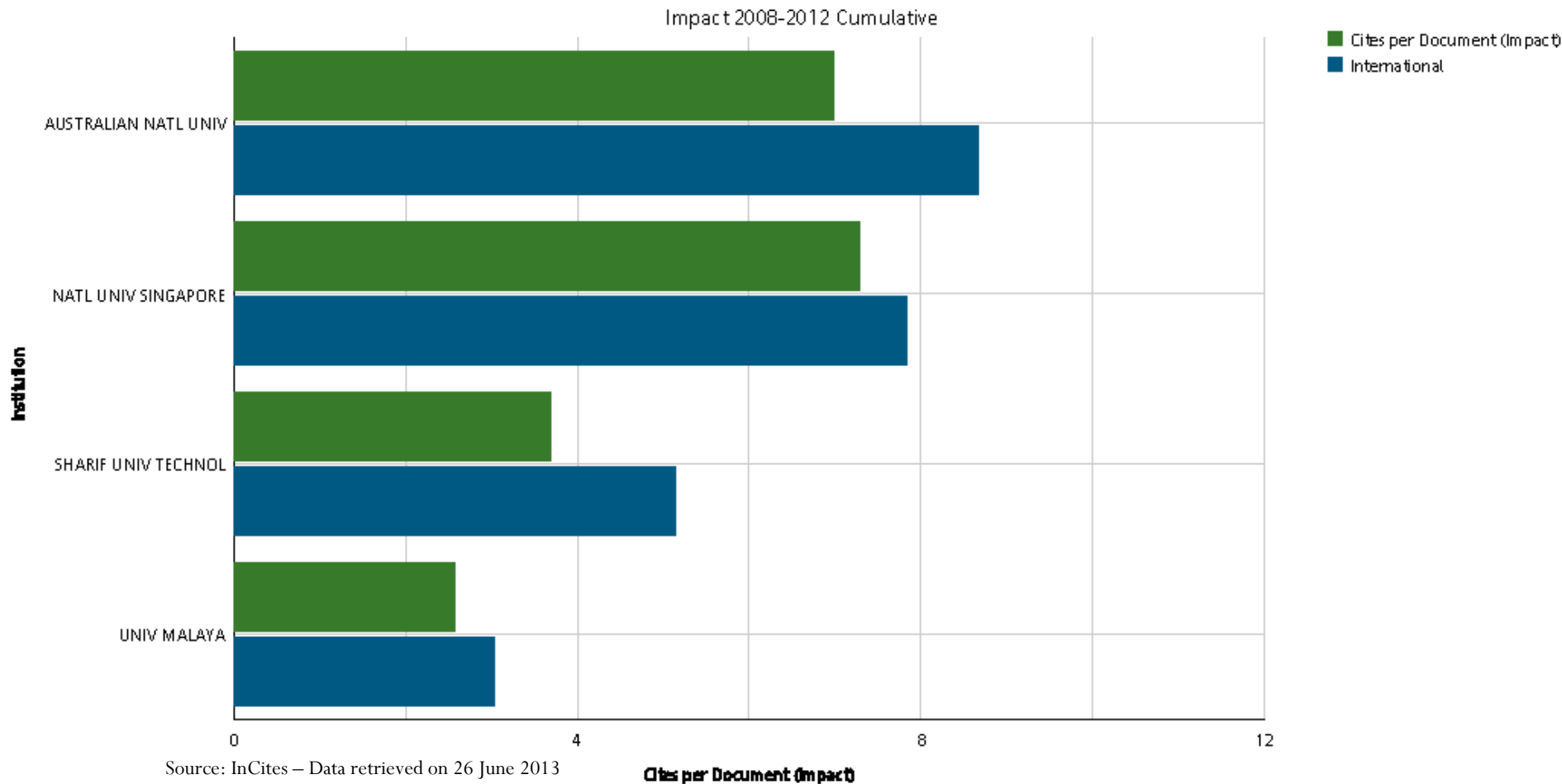
Institution	Web of Science Documents <a href="#">View Graph</a>	Times Cited <a href="#">View Graph</a>	Cites per Document (Impact) <a href="#">View Graph</a>	% Documents Cited <a href="#">View Graph</a>	Impact Relative to World <a href="#">View Graph</a>	% Documents in World <a href="#">View Graph</a>	% Documents Cited Relative to World <a href="#">View Graph</a>	Aggregate Performance Indicator <a href="#">View Graph</a>
AUSTRALIAN NATL UNIV	11,996	83,755	6.98	74.32	1.35	0.20	1.14	1.43
NATL UNIV SINGAPORE	23,016	167,623	7.28	72.16	1.41	0.38	1.11	1.39
SHARIF UNIV TECHNOL	5,276	19,477	3.69	60.27	0.72	0.09	0.92	0.99
UNIV MALAYA	7,862	20,243	2.57	51.00	0.50	0.13	0.78	0.88

Source: InCites – Data retrieved on 26 June 2013

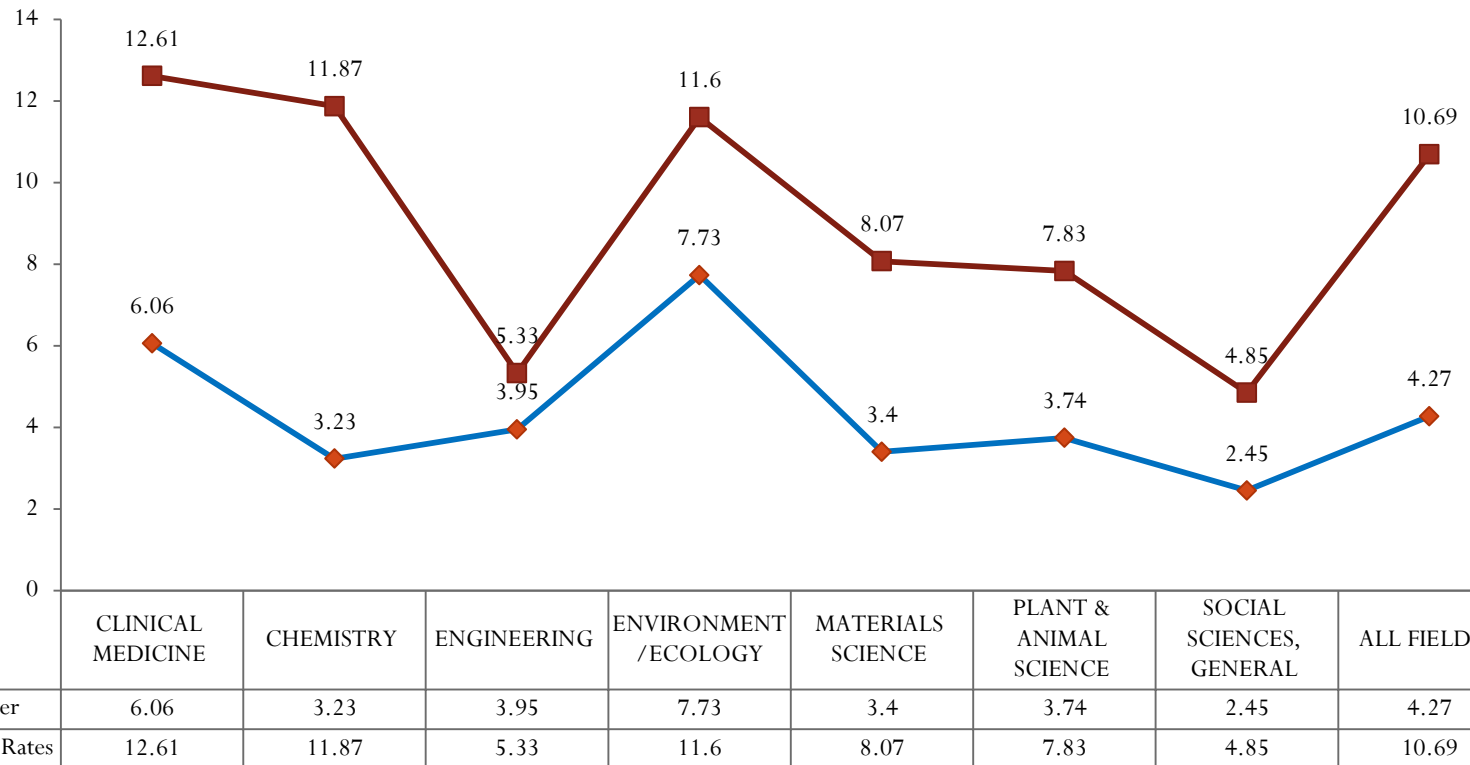
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# Compare Institutions – Cite per Document

## Time Period: 2008-2012 Cumulative

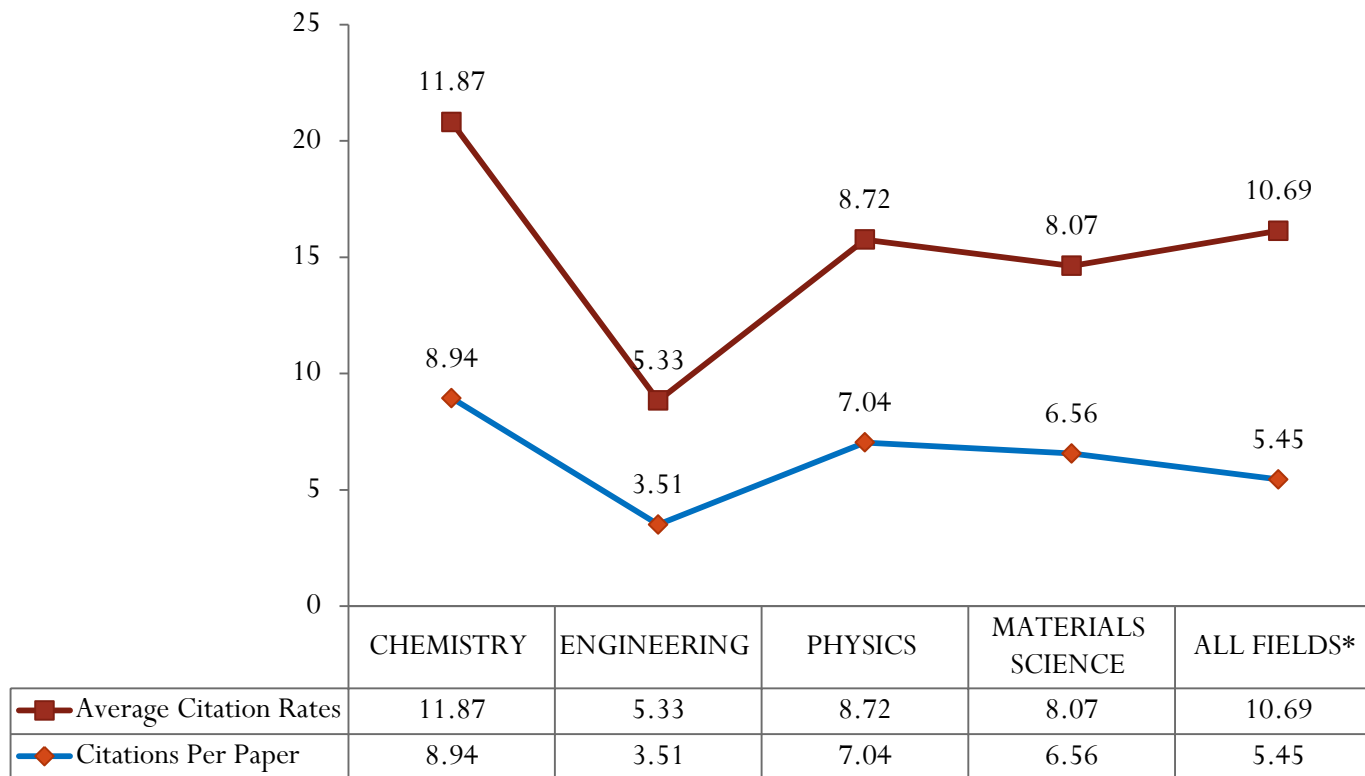


# Compare World Average & University of Malaya, Citation Per Paper



Source: ESI, data retrieved on 17 October 2013

# Compare World Average & Sharif university, Citation Per Paper

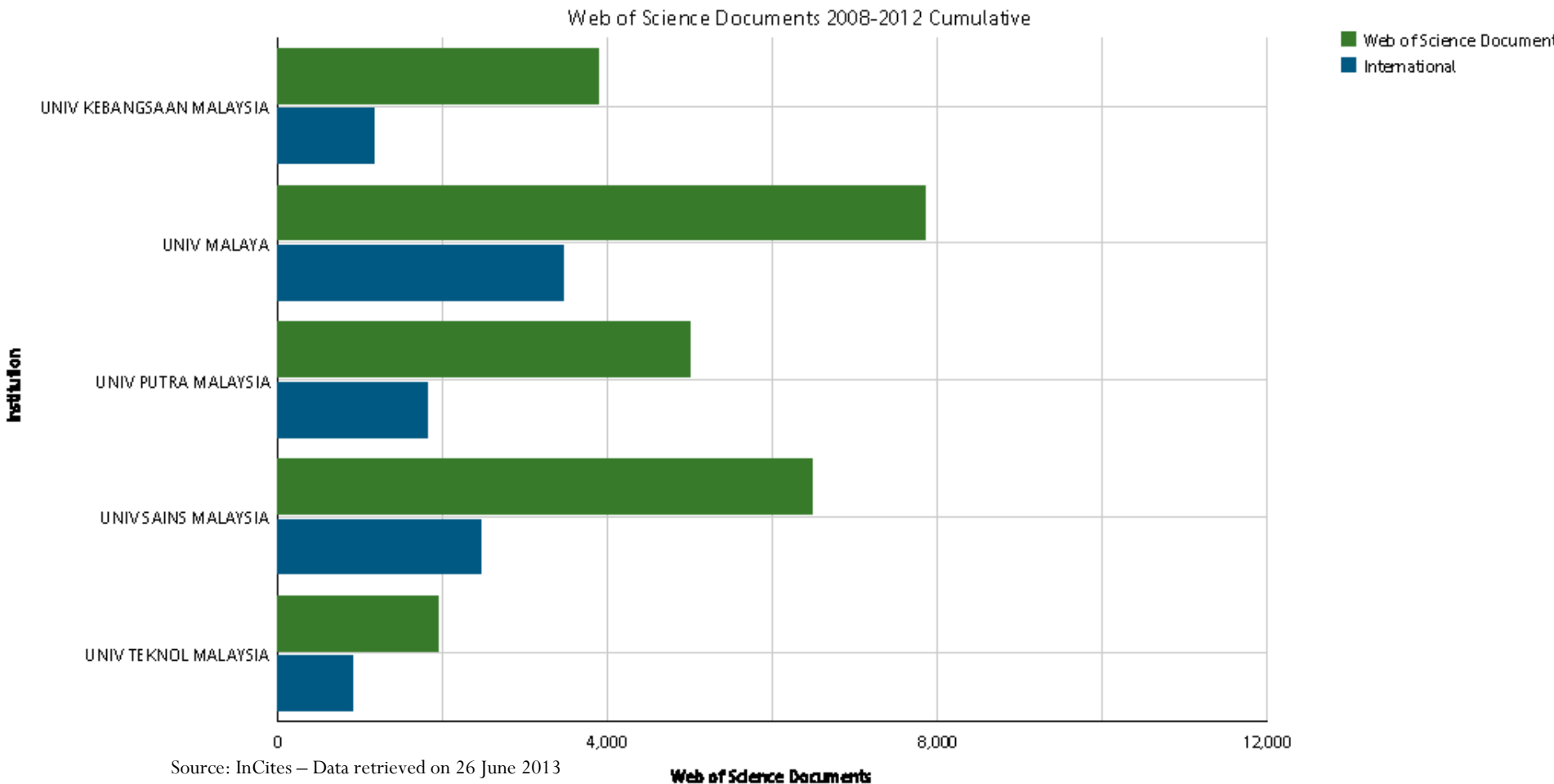


Source: ESI, data retrieved on 17 October 2013

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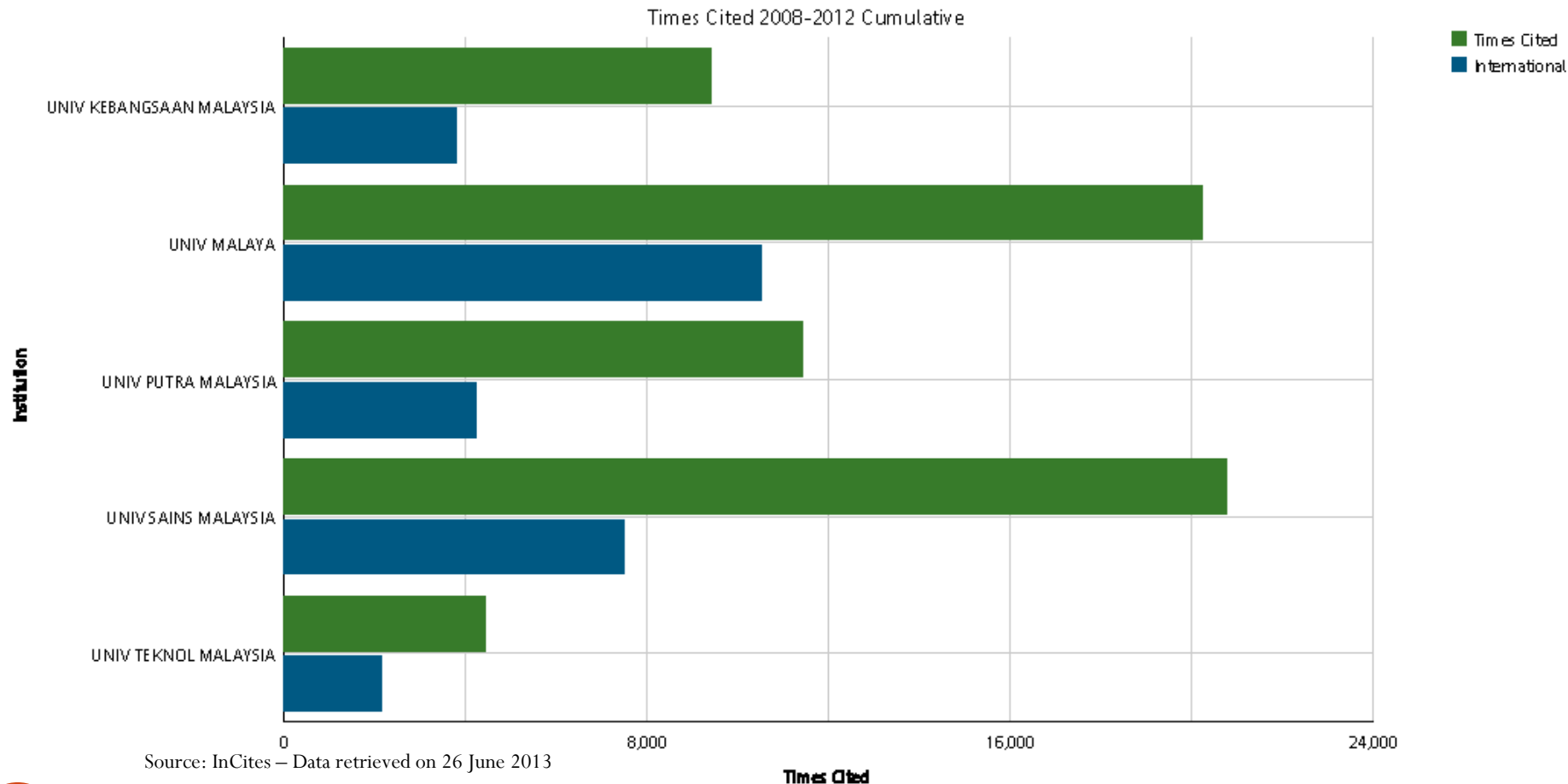
# Compare Institutions

## Time Period: 2008-2012 Cumulative - Publications



# Compare Institutions

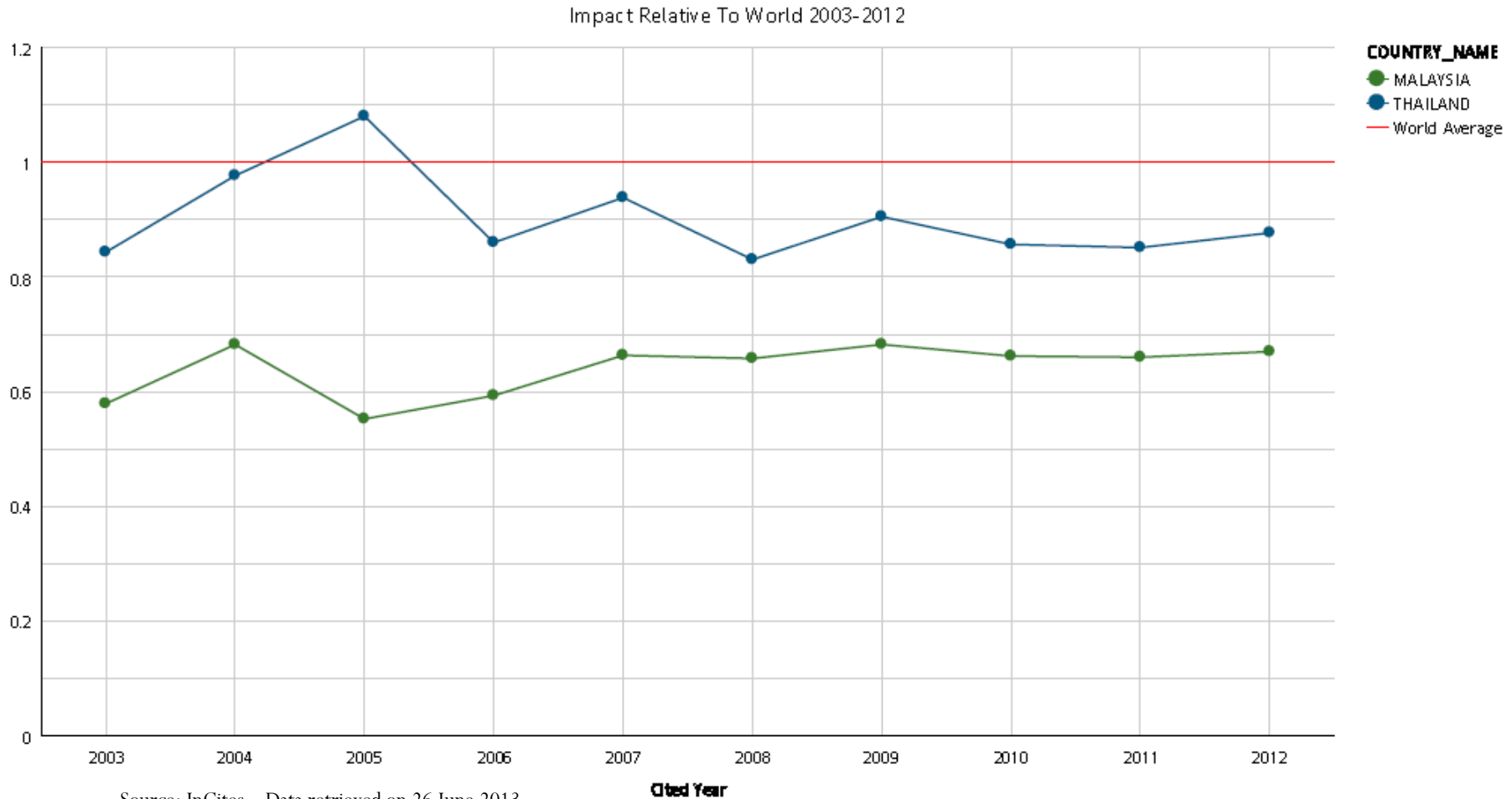
## Time Period: 2008-2012 Cumulative - Citation



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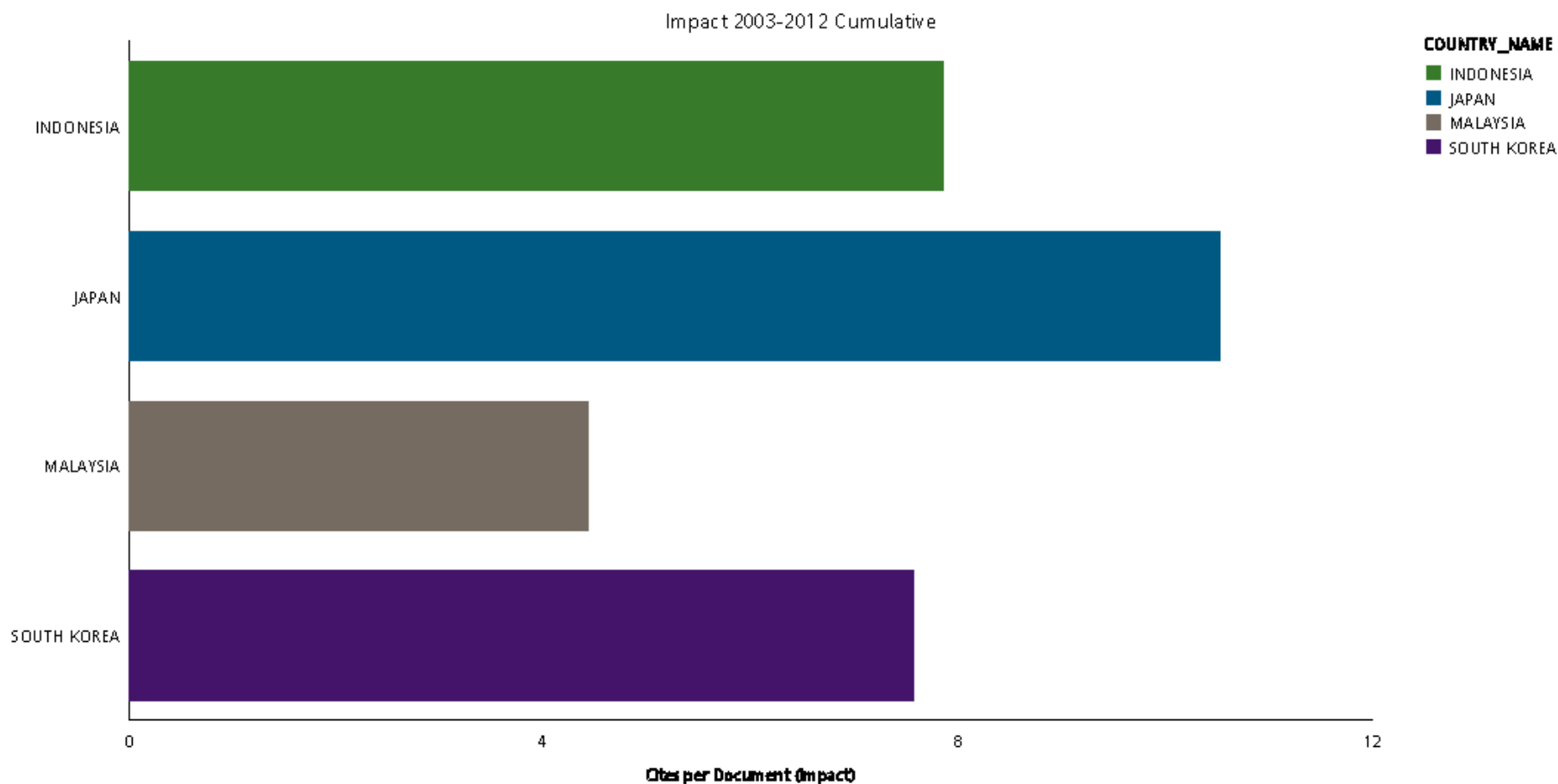
# Compare Countries Impact Relative To World 2003-2012



Source: InCites – Data retrieved on 26 June 2013

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# Compare Countries Impact 2003-2012 Cumulative



Source: InCites – Data retrieved on 26 June 2013

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# Future

- Developed countries;  
present status could be future  
perspectives of developing  
countries



# Nottingham Business School- BLUE SKY VISION 2009 - 2013

NBS BLUE SKY VISION 2009 - 2013			
AIM - A leading International business school			
	QUALITY	DELIVERY & VOLUME	INCOME & COST
EDUCATION	M1 Increase Student satisfaction by 10%	M7 New entrant UG EU - 800	M16 Increase margin on programmes by 5%
	M2 Increase student tariff to 320	M8 New entrant UG Int - 300	M17 Increase demand volume UG
	M3 Introduce GMAT and achieve 600	M9 Open PG EU grow to 250	M18 Increase demand and conversion rate -PG
	M4 Increase proportion of all UG 1st class honours to 10%	M10 Open PG Int grow to 400	M19 Increase demand and conversion rate - Exec Ed
	M5 Reduce failure/ referral rate by 10%	M11 Increase no. of EQUIS/AACSB accredited partners (1:1)	M20 Increase ROI on travel by 5%
	M6 Increase entry level of MSc progs to 2.1 minimum	M12 Increase no. students in double/dual degree progs to 200	
EARCH		M13 20% UG students @ level 2 to do study abroad	
		M14 Module commonality/prog - UG	
		M15 Module commonality/prog - PG&Exec Ed	
	M25 Increase no of publications in 2*/3*/4* journals	M28 Increase no research active staff to 75% of core faculty	M31 Increase research income by 60% per annum
	M26 Increase citation (make decision keep/delete	M29 Increase PhD completion 10/year	M32 Increase doctoral qualifications of staff to 75%
	M27 Improvement of 20% on RAE esteem factors	M30 Increase DBA completion 20/year	M33 Increase high quality research seminars to 30 across all divisions



SUBJECTS ▼

DISCOVER SURREY

## LIBRARY & LEARNING SUPPORT

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- > Using Library Resources
- > My Subject
- > SPLASH & Study Skills
- ✓ Researcher Development

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Students

Face to Face Workshops



# HOW TO MAXIMISE THE VISIBILITY AND IMPACT OF YOUR RESEARCH: PATHWAYS TO OPEN ACCESS

This workshop is aimed at all researchers who have started writing for publication or are considering writing for publication.

A great amount of researchers' time and effort involves writing up their research for publication. However, once a paper is accepted for publication, it is not guaranteed that it will reach the widest possible audience, even if the journal does have a high impact factor.

**Next available session: 25th  
September 2013, 10:00-13:00**

[Middle Years Register](#)

[Final Years Register](#)

## Campus Buzz

### Talk : Citation Matters! Realise Your Paper's Full Citation Potential: 8 April 10

Published on : 05-Apr-2010  
01-Apr-2010 - 30-Apr-2010 0000hrs - 2330hrs

VENUE : LT 19 (N2-B2)

Contact Information :

Library Promotion Division  
Tel: 6592 7543  
email : [library@ntu.edu.sg](mailto:library@ntu.edu.sg)

Title: Citation Matters! Realise Your Paper's Full Citation Potential  
Date: 8th April 2010, Thursday  
Time: 11.00am - 12.30pm  
Venue : LT 19 (N2-B2)  
Speaker: Christina Low, Managing Editor, Taylor & Francis Asia Pacific  
Q & A: Christina Low and Prof Eddie Kuo, Editor-in-Chief, Asian Journal of Communication

To register, visit [www3.ntu.edu.sg/lib/publishing](http://www3.ntu.edu.sg/lib/publishing).

Researchers not only actively publish nowadays. They also have to track the impact of their research through citations and the ranking of the journals they are published in. Going beyond getting published, understanding citation metrics and journal impact will certainly help researchers succeed in today's competitive fields.



## Citation Analysis: Measuring the Influence and Impact of Research

Tags: [altmetrics](#), [article level metrics](#), [bibliometrics](#)

[metrics](#), [peer review](#), [research](#), [scholarly communication](#), [scholarly publishing](#)

A guide to understanding impact factors, journal rankings, alt-metrics, and other means of analyzing the influence and impact of

Last Updated: Aug 15, 2013 | URL: <http://guides.uflib.ufl.edu/citeanalysis> | [Print Guide](#) | [RSS Updates](#) | [Email Alerts](#) | [SHARE](#)

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### Maximizing Influence & Impact

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#### Resources: Articles and Studies

- [Do Open Access Articles Have a Greater Research Impact?](#)
- [Effect of Open Access and Downloads on Citation Impact: a bibliography of studies \(OpCit Project\)](#)
- [Evaluating Research Impact through Open Access to Scholarly Communication](#)
- [Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age](#)
- [Maximizing the Impacts of Your Research: A Handbook for Social Scientists \(London School of Economics\)](#)
- [Open Access Increases Citation Rate](#)

#### Maximize Impact through Open Access



Where you publish can maximize your impact. Many open-access articles are more immediately and more widely cited than non-open-access articles. Increased citation rates lead to increased exposure to your work.

The way to maximize the impact of your research first is to get the maximum exposure to your work.

1. Retain your copyrights. Copyright, when signed over, gives you the ability to disseminate your work. By retaining your copyright, you control the dissemination, thus maximizing your work's potential reach and gain in scholarship. You can retain your copyright by utilizing an author's self-archiving agreement using the SPARC author's addendum. You can also consult the SPARC website for information about the copyright policies and self-archiving terms for



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## Maximizing the Visibility and Impact of Your Published Research

### On this page

[Benchmarking your research using citation analysis](#)

[Maximizing the impact & visibility of your published research](#)

[Strategies to Increase Citations to Your Publications](#)

[Tools to Access Research Performance Data](#)

### See also

[Spectrum Research Repository](#)

[Concordia University Senate Resolution on Open Access](#)

[Concordia Open Access Author Fund](#)

## INTRODUCTION

Measuring the inter- and cross-disciplinary impact of your published research can be a valuable achievement of both an individual or unit and can play a role in a number of decision processes including:

### Identifying Research Trends including:

- **Impact:** Examine the dispersion of cited and citing works both within and across **disciplinary and geographic boundaries** to capture the total impact of research collaboration and investment.
- **Time:** Consider the longitudinal impact and value of publications i.e. the frequency and both publication output and citation impact over time.
- **Prestige:** Capture the scope and prestige of the publication in which the unit publishes.
- **Funding and Grant Applications:** profile performance and impact to demonstrate the value of a research entity.



## Personal Impact

[About](#)

[Book Impact](#)

[Citation Impact](#)

[Journal Impact](#)

[Personal Impact](#)

[Altmetrics](#)

Personal impact can be measured, both quantitatively and qualitatively.

As well as contributing to academic discourse, your impact might also be reflected outside the scholarly literature. Consider your research in the context of:

- The wider community
- Uptake by practitioners
- Reach in social media (see Altmetrics)
- The adoption of a new product
- The commercialisation of a product for industry
- The discovery of a new drug
- Unsolicited feedback from the public or other experts in your field
- Impact on policy or legislation

### Visibility

Increasing the visibility of your publications can increase their discoverability.

Strategies to maximise your impact:

- **ResearchSpace**

(@Nader Ale Ebrahim 2013-2015)

### H-Index

The h-index is a citation based attempt to measure both the productivity and impact of the published work of a scientist.

The h-index is not widely used outside of the Sciences. Humanities scholars are advised not to use the h-index to measure personal impact.

**Definition:** 'The index h, defined as the number of papers with citations equal to h, is a useful index to characterise the scientific output of a scientist.'

**Further reading (including limitations):** [Measuring and Evaluating Research Impact](#) by The University of Auckland Science Information Services team.

View a video on the [Limitations of the h-index for early career researchers](#)

Example:

ations  
↑



Resources



Services



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Researchers



About Us



Help

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▼ Publishing

- Journal Publishing
- Book Publishing
- Publishing During Candidature
- ▶ Measuring Impact
- ▶ Open Access
- HERDC Collection
- Data Management

[Home](#) [Researchers](#) [Publishing](#)

## Publishing

Strategic publishing of your research findings has professional and institutional implications:

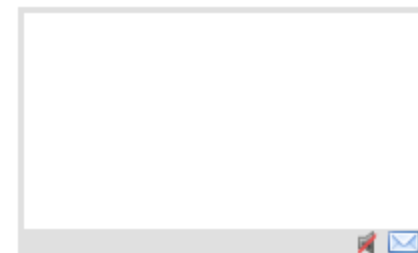
### Professional

- **Increases the visibility of your research and raises your research profile.**
- Is a consideration when applying for grants, promotions or new positions.
- Is often a requirement or expectation of employment in an academic or research institution.


### Institutional


- Directly impacts government funding [HERDC](#)
- Directly impacts reputation [Excellence for Research in Australia \(ERA\)](#)

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## Guides

# Increase the visibility and impact of your research

28 May 2013

## The issue

Universities must increase the visibility of their research to demonstrate the contribution they make to the knowledge economy, improve their chances in the competition for government research funding and position themselves well to work with industry or third sector partners.

## Most read

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[Developing students' digital literacy](#)[How can I keep the curriculum relevant in a time of rapid change?](#)[Research data management](#)



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# **MAXIMIZING THE IMPACTS OF YOUR RESEARCH: A HANDBOOK FOR SOCIAL SCIENTISTS**

LSE Public Policy Group

Consultation Draft 3:

# Transforming Scholarly Communication & Publishing



ARCHIVING SCHOLARSHIP

DATA MANAGEMENT

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RESEARCH IMPACT

OPEN ACCESS PUBLISHING

University Libraries > Transforming Scholarly Communication & Publishing > **Maximize Your Research Impact**

## Maximize Your Research Impact

## Maximize Your Research Impact

Easy as 1-2-3:

- [Step 1: Identify the right journal](#)

*But, before you submit your manuscript, make sure to...*

- [Step 2: Increase the visibility/discoverability of your scholarship](#)

*Finally,*

- [Step 3: Track citation-based metrics for your articles](#)



# ASSESSING THE **IMPACT** OF RESEARCH

A Bernard Becker Medical Library Project

[Preparing for Publication](#)

[Dissemination](#)

[Keeping Track of Your Research](#)



## Strategies for Enhancing the Impact of Research

---

Optimizing discoverability and access of your research is the surest way to enhance its visibility and impact. As follows are various strategies for authors to consider as they undertake research. The strategies are divided into three categories: Preparing for Publication, Dissemination, and Keeping Track of Your Research. Repetition, consistency, and an awareness of the intended audience form the basis of most the following strategies.

Contact Us





## KE EVENTS

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## Knowledge Exchange Office

### Seminar

[<< Back to Seminars 2011](#)

#### KE Lunch Meeting

November 3, 2011 | 12:30 pm – 2:00 pm

Room P-603, Graduate House

**Increase Your Impact – How to make your research more visible and have more impact through placing your papers in Open Access and optimizing your pages in The HKU Scholars Hub?**

By [Professor John Bacon-Shone](#)

Associate Director, Knowledge Exchange Office &

[Mr David Palmer](#)



- ▶ Academic and Student Resources
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- ▶ Health
- ▶ Human Development & Family Studies
- ▶ Political Science
- ▶ Psychology
- ▶ Research Methods, Statistics,

[Journal Author Gateway](#) ▶ [Maximizing Readership](#) ▶ 10 Ways to Increase Usage and Citation

## 10 Ways to Increase Usage and Citation of your Published Article Using Social Media

As readers' expectations change, it is important that your article is visible where the user starts their search. Below are some of the social media sites that SAGE recommends for promoting your article and other channels that will offer a direct way to reach your readership.

### 1. Contribute to Wikipedia

We recognize that many students are increasingly using Wikipedia as the starting point for their research. If there are pages that relate to themes, subjects or research that your article covers, add your article as a reference, with a link to it on *SAGE Journals Online*. If there isn't a page in existence, why not create one. You can find out how here: [http://en.wikipedia.org/wiki/Wikipedia:Your\\_first\\_article](http://en.wikipedia.org/wiki/Wikipedia:Your_first_article)



WIKIPEDIA  
The Free Encyclopedia

### 2. Join Twitter

Twitter is a micro-blogging service that enables its users to send and read messages known as tweets. Authors are increasingly promoting their content via twitter which is then picked up by other researchers and practitioners depending on their search parameters. Look at the example [here](#). Senders can restrict delivery to those in their circle of friends or, by default, allow open access. Twitter allows you to set up search terms to enable you to monitor what is being talked about in your areas of interest: You can then comment on

twitter

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SEARCH

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▶ Manuscript Submission Guidelines

▶ Help Readers Find Your Article

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▶ Increasing Usage and Citations to Your Article

▶ Journal Author FAQ

## Help Readers Find Your Article

### ▶ The importance of search engines

Google and Google Scholar are the principal ways in which people will find your article online today. Between them they account for 60% of referral traffic to [SAGE Journals Online](#). The search engine is now the first port of call for researchers and it is of paramount importance your article can be found easily in search engine results.



By taking some simple steps to optimize your article for search engines it will help your work to be discovered, then read, used and cited in others' work. This helps with support the Impact Factor of the journal (if applicable) your article is published in and will further raise the visibility of your article.

SAGE already undertakes many measures to ensure SAGE journals are indexed in the all the major search engines. There are over 100 factors that a search engine will look at before deciding how to rank your article in their search results, but the starting point is the content that you write.

### ▶ What do search engines look at?

Today's search engines use secret complex mathematical algorithms that change every month to keep their search results as accurate as possible. They take into account over 100 different factors and do not disclose the weighting or importance of each. Below are just a few of the elements considered today by search engines:

▶ the volume of incoming links from related websites

▶ volume and consistency of searches  
▶ time within website



## Categories

[Access to Research](#)

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[Communicating Science](#)

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## Get found — optimize your research articles for search engines

### Tips to boost readership and raise your profile in the academic world

By Elsevier Biggerbrains | Posted on 6 November 2012

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Search engine optimization (SEO) of your journal articles is as important for you to do to market your research as it is for a company to do to market a retail product. Different markets and end users, but the same purpose and means. Thanks to companies like Google, SEO is almost a must for you if you would like to increase readership of your articles, increase citations and acknowledgment and to create an overall stronger academic profile both offline and online. By optimizing your articles, you guarantee that your articles are indexed and gain a higher ranking in general search engines, such as Google and [Google Scholar](#), Elsevier's [Scirus](#), [SciDiver](#), [IEEE Xplore](#), [PubMed](#), [SciPlore.org](#) and more.<sup>1</sup>

A higher ranking means that your article appears at the top of the list in the search results when someone types in one or more of the keywords or phrases you use in your article. The basis for this ranking varies from the search engine used to perform the search, as each search engine

#### [Brought to you by Elsevier Biggerbrains](#)

This SEO guide is from [Biggerbrains](#), which provides career development resources for early-career researchers. The w



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Author Services

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▼ **Auth**  
After

## Browse:

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- ▶ Optimize citations
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## Optimize citations



**When researchers refer to another author's work in their own published work, they cite it. Such citations can be analyzed to measure the formalized usage of the cited work.**

Databases such as Thomson Scientific's Science, Social Sciences, and Arts & Humanities Citation Indexes compile the cited references from articles published during a particular year or period.

These databases allow people to determine the research impact of a researcher's publications according to the number of times they have been cited by other researchers. Citation counts are often used in research funding and promotion decisions. Boosting citation rate is thus a potentially important motivator for authors. What can you do to optimize citations to your article?

- Publish your article in one of the journals everyone in your discipline reads.
- Target a journal with a high impact factor, or with any impact factor at all!
- Target journals in rapidly growing research fields because they tend to publish papers with a short time interval from submission to acceptance



# Author Services

## Author Services Menu

- Home

## Journal Authors

- Journal Authors Home
- Register
- My Publications
- Find a Journal
- Editorial Policies
- Author Resources
- Author Rights and Benefits
- FAQs

## Optimizing Your Article for Search Engines

### Help Readers Find YOU:

Optimizing your article for search engines will greatly increase its chance of being viewed and/or cited in another work. Citation indexes already figure many disciplines as a measure of an article's value; there is evidence that article views/downloads are also beginning to count in the same way. The crucial area for optimization is your article's abstract and title, which are available to all online. We have compiled these guidelines to enable you to maximize the web-friendliness of the most public part of your article.

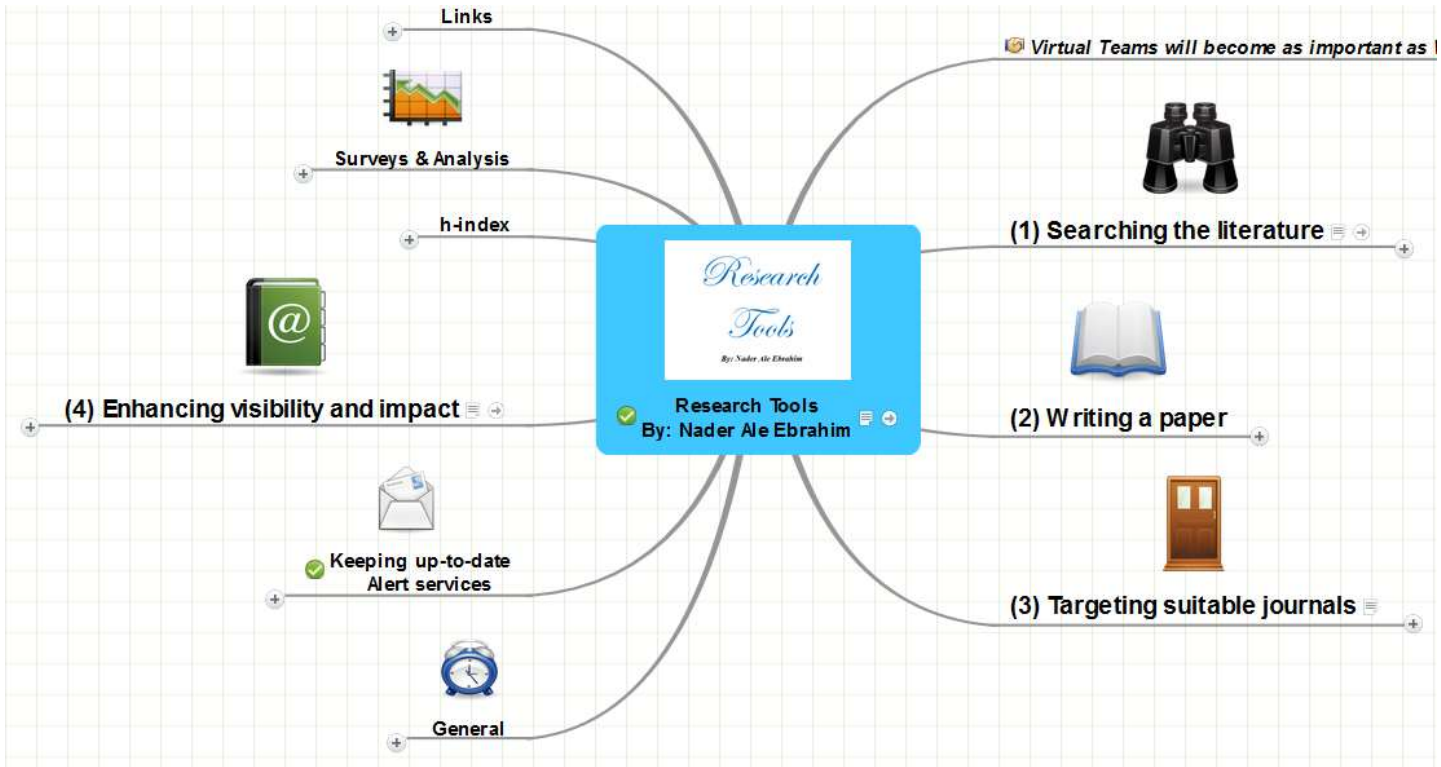
### Understanding Search Engines:

Each search engine has its own algorithms for ranking a piece of content as a journal article. However, many search engines estimate the content



# What is new

- Nader developed and introduced “Research Tools” for increasing the visibility and impact of the research which directly effects on the number of citations.



# Conclusion

Publishing research output in high-impact journals is a primary concern of researchers. But once their works are published, they are concerned about citation which is directly related to the paper's quality and visibility. The institutions in the developing countries should provide open access repository for their researchers. Next, the institutions/researchers can apply Nader's method ([Research Tools](#)) for increasing the visibility of their papers.

The field rankings table can be a reference for developing countries to select a field of study in the future.

Ale Ebrahim, N., et al., [Effective Strategies for Increasing Citation Frequency](#). International Education Studies, 2013. 6(11): p. 93-99.

@Nader Ale Ebrahim 2013-2015





*Please contact me through:*

*Email: aleebrahim [At] um [Dot] edu [Dot] my*

*Website: <http://aleebrahim.com/>*



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