

قياسات المعلومات في مطلع القرن الحادي والعشرين



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قسم علوم المعلومات – جامعة بني سويف

المؤتمر الدولي لقياسات المعلومات ومعامل التأثير العربي

الأسكندرية ، 6-9 اغسطس 2016

الرحمن الرحيم

A decorative graphic element consisting of a white diamond shape with a blue fill, overlaid by a thick, grey, brush-like stroke that curves across the diamond and extends to the right.



هدف الدراسة

- الكشف عن تطور قياسات المعلومات منذ نشأتها حتى الآن، ومدى حضور تلك القياسات في الوقت الحاضر وتعايشها مع بعضها البعض.

سبل تقييم النشاط العلمي



سبل تقييم النشاط العلمي

How is impact measured ?

- Peer review
- Citation analysis and metrics
- Esteem, influence, awards, prestige, broadcast media attention.
- Research income
- Public policy
- Industry engagement

وهذه السبل مكملة لبعضها البعض



Literature

Information Development

Libraries

Bibliometrics

Research Method

3 Basic Laws

Bradford's Law

Lotka's Law

Zipf's Law

Citation Analysis

Citation Index

Co-citation Analysis

Bibliographic Coupling

co-word Analysis

Science Citation Index

Social Science Citation Index

Supply and Demand

Publishing

Popular books/Magazines

Sales

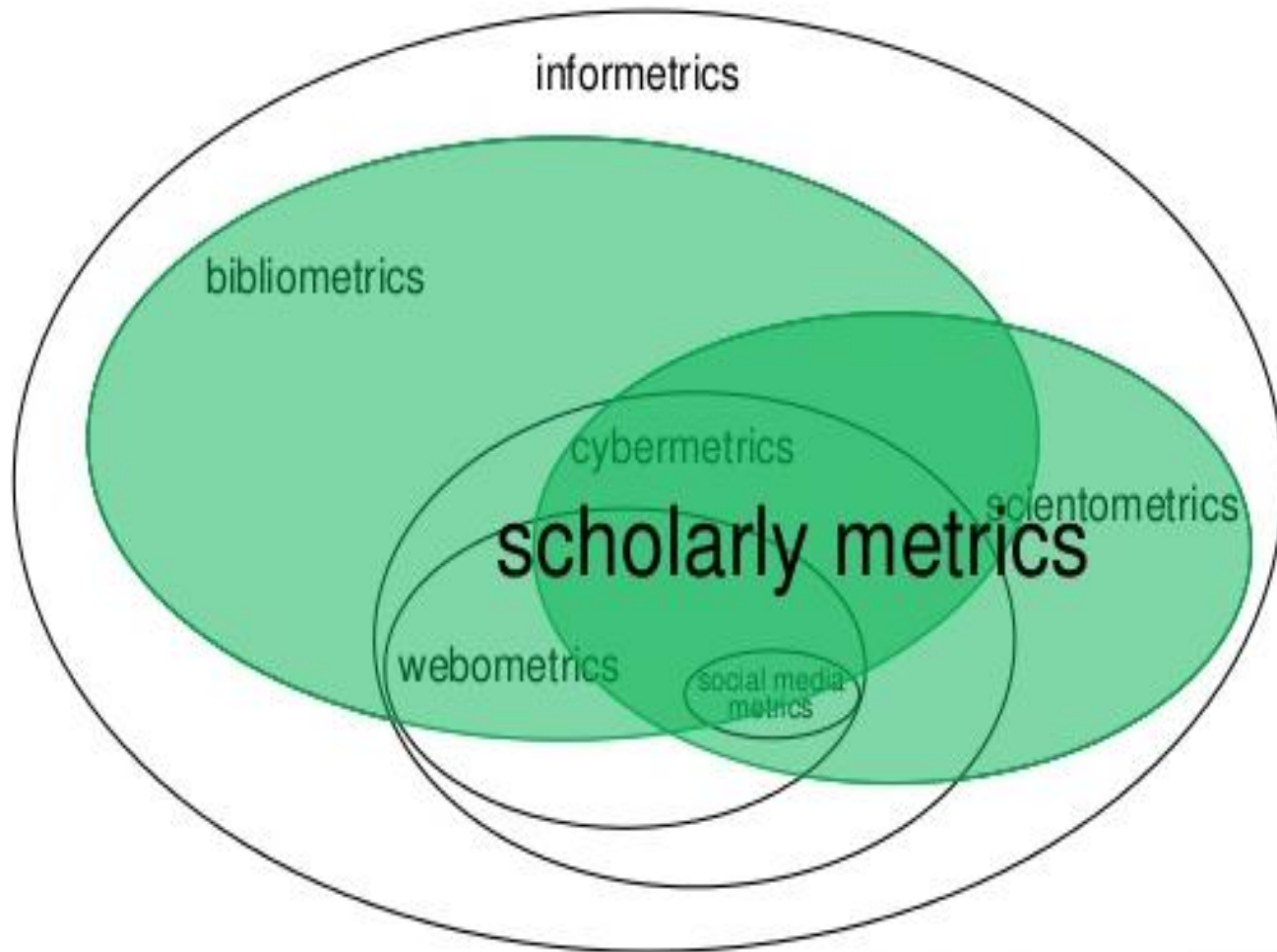
Profit/loss

Printing Costs

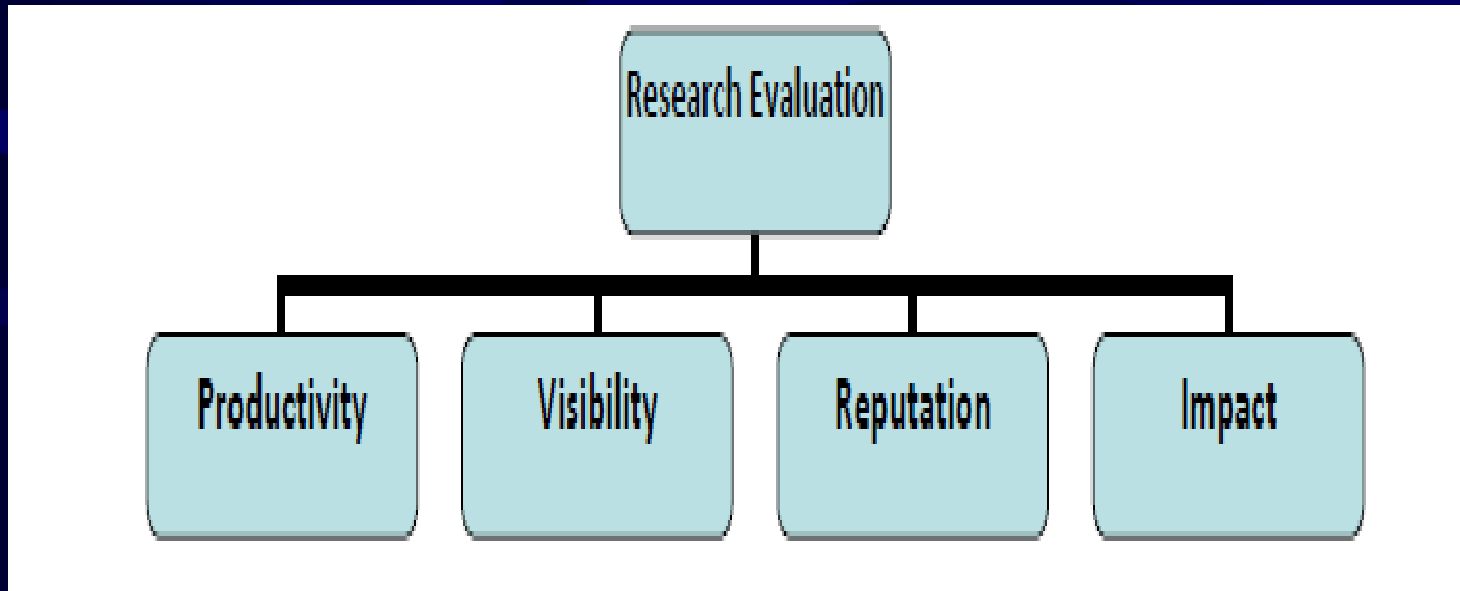
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المصطلحات ذات الصلة بقياسات المعلومات

Term	Short Definition
Bibliometrics	Bibliometrics is a set of methods to quantitatively analyse academic literature and scholarly communications.
Informetrics	Informetrics is the study of quantitative aspects of information. This includes the production, dissemination, and use of all forms of information, regardless of its form or origin.
Scientometrics	Scientometrics is the study of quantitative features and characteristics of science, scientific research and scholarly communications.
Webometrics	Webometrics is the study of quantitative features, characteristics, structure and usage patterns of the world wide web, its hyperlinks and internet resources.
Cybermetrics	Cybermetrics is an alternative term for Webometrics.
Librametrics	Librametrics is a set of methods to quantitatively analyse availability of documents in libraries, their usage and impact of library services to its user community.
Patentometrics	Patentometrics is a set of methods to quantitatively analyse patent databases, patent citations and their usage patterns.
Altmetrics	Altmetrics is new metrics proposed as an alternative to the widely used journal impact factor and personal citation indices like the h-index. The term altmetrics was proposed in 2010, as a generalization of article level metrics, and has its roots in the twitter #altmetrics hashtag.
Article Level Metrics (ALM)	Article level metrics is an alternative term for Altmetrics.



أبعاد تقييم البحث العلمي



الإنتاجية: القوانين الإمبريقية (الكلاسيكية)

Classical Bibliometric Laws

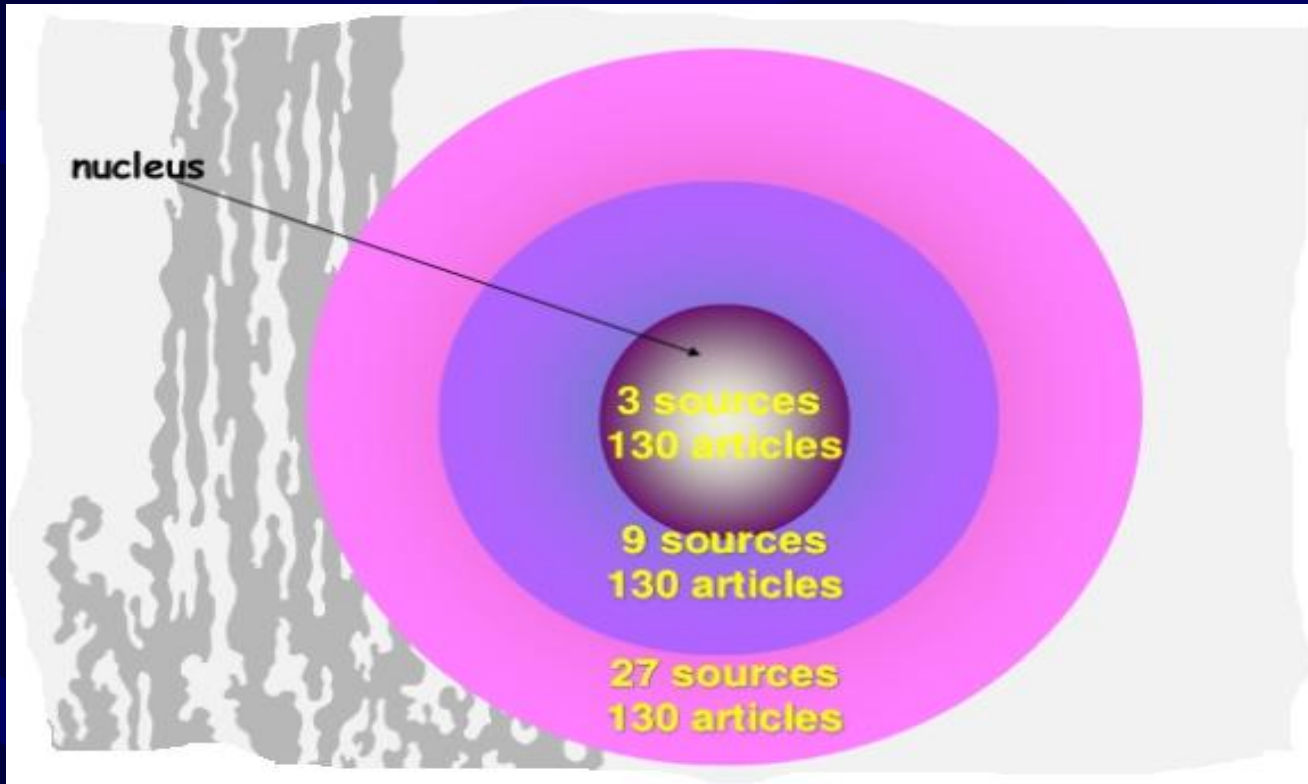
Bradford's Law of Scattering

Lotka's Law of Scientific Productivity

Zipf's Law of Word Occurrence

قانون برادفورد للتشتت

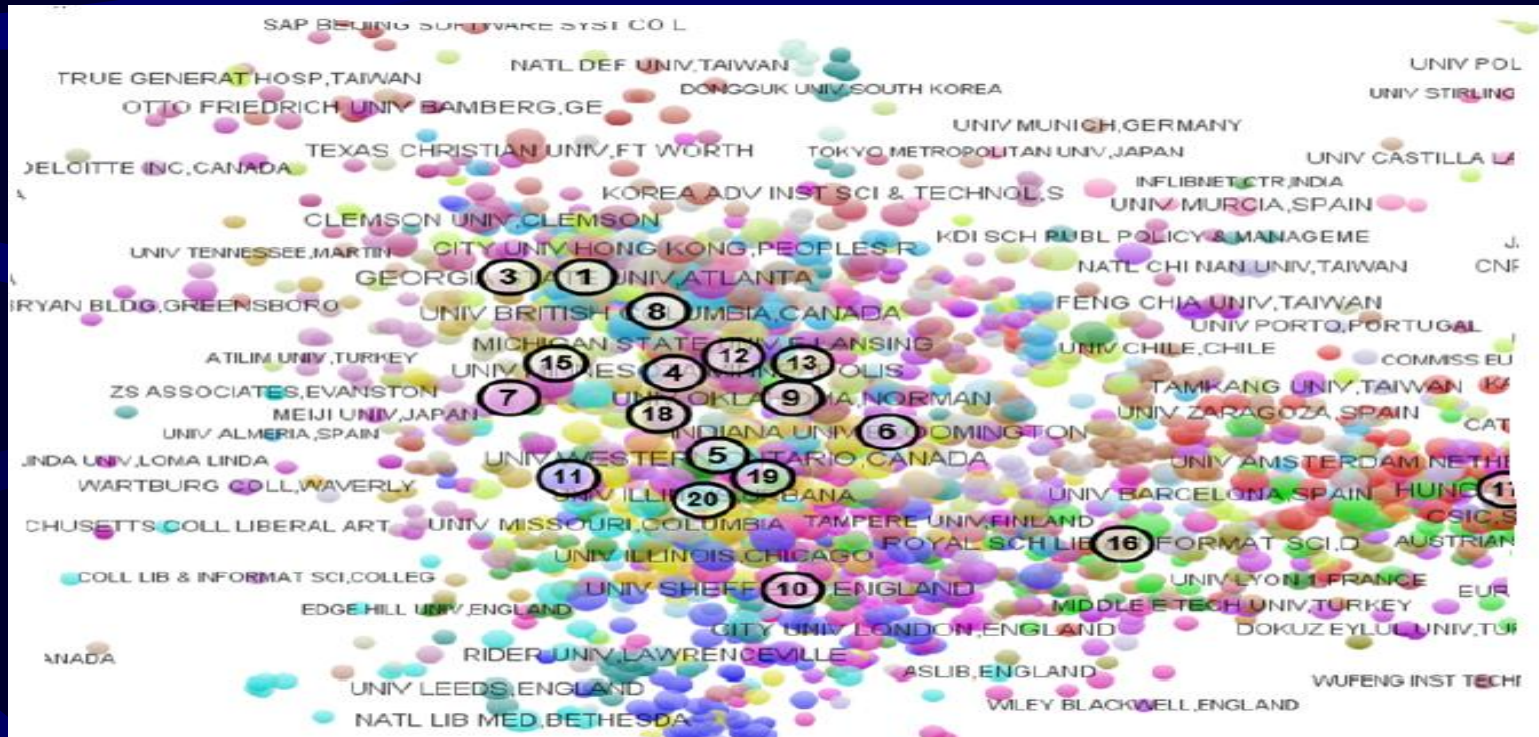
• النواة Nucleus



تحليل الاستشهادات المرجعية

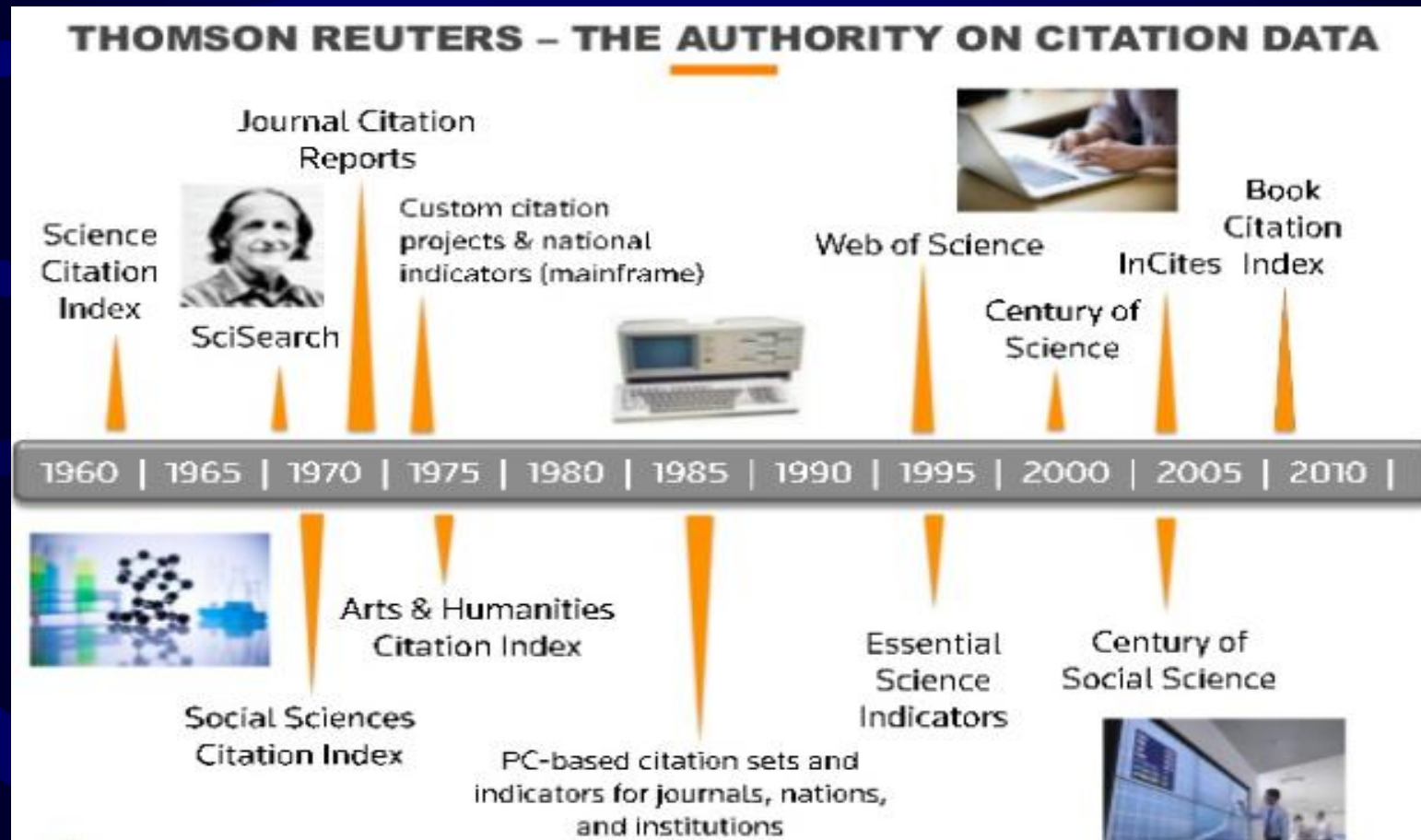
- Direct count of citations
- Citations Versus Citing sources (**Impact Factor**)
- Self-citation
- Inter-citation
- Co-citation
- Bibliographic coupling

تحليل الاستشهادات المرجعية



- Co-citation Network

التطور التاريخي لتحليل الاستشهاد المرجعي – بناء على إسهامات أحد أبرز رواد هذا المجال : تومسون رويترز



كبرى مراد البيانات الاستشهاد المرجعي

Name of Citation Database	Launched	Scope	Owned by	Terms of Availability
<i>Science Citation Index (SCI)</i>	1964	Global	Thomson Reuter	Subscription-based with Web of Science
<i>Social Science Citation Index (SSCI)</i>	1972	Global	Thomson Reuter	Subscription-based with Web of Science
<i>Arts & Humanities Citation Index (A&HCI)</i>	1978	Global	Thomson Reuter	Subscription-based with Web of Science
<i>Scopus</i>	2004	Global	Elsevier B.V.	Subscription-based
Google Scholar Citations	2004	Global	Google Inc.	Freely Available Online
Microsoft Academic Search	2003	Global	Microsoft Research	Freely Available Online
CiteSeerX (CiteSeerX.ist.psu.edu)	1997	Global; Subject specific	Pennsylvania State University, USA	Freely Available Online
<i>Indian Citation Index (IndianCitationIndex.com)</i>	2009	India/ South Asia	Knowledge Foundation and Diva Enterprises	Subscription-based

أبرز مرادد البيانات الاستشهاد المرجعي



Databases

Metrics (e.g. citation count) may vary depending on the database they were generated from.

Some metrics (e.g. Impact Factors) are only available from certain databases.



Web of Knowledge و Web of Science

ومرصد البيانات المتاحة بهما

Product Included	Web of Science	Web of Knowledge
<i>Science Citation Index Expanded</i>	√	√
<i>Social Sciences Citation Index</i>	√	√
<i>Arts & Humanities Citation Index</i>	√	√
<i>Book Citation Index</i>	√	√
<i>Conference Proceedings Citation Index</i>	√	√
<i>Data Citation Index</i>	X	√
<i>BIOSIS Citation Index</i>	X	√
<i>Chinese Science Citation Database</i>	X	√
<i>SciELO Citation Index</i>	X	√
<i>Derwent Patents Citation Index (DPCI)</i> (also included in Derwent World Patents Index)	X	√

Web of Knowledge

WEB OF KNOWLEDGESM | DISCOVERY STARTS HERE

[Go to mobile site](#) | [Sign In](#) | [Marked List \(0\)](#) | [EndNote](#) | [ResearcherID](#)

Web of Science | **Additional Resources**

[Search](#) | [Author Search](#) | [Cited Reference Search](#) | [Advanced Search](#) | [Search History](#)

Web of Science[®]

Search

Example: oil spill mediterranean*

in [Select from Index](#)

Example: O'Brian C OR OBrian C**
Need help finding papers by an author? Use [Author Search](#).

in [Select from Index](#)

Example: Cancer OR Journal of Cancer Research and Clinical Oncology*

in [Select from Index](#)

[Add Another Field >>](#)

Limits: (To save these permanently, [sign in](#) or [register](#).)

Timespan

- (updated 2013-12-11)
- From to (default is all years)

Citation Databases

- Science Citation Index Expanded (SCI-EXPANDED) –1999-present
- Social Sciences Citation Index (SSCI) –1999-present
- Arts & Humanities Citation Index (A&HCI) –1999-present

Search Settings

Results Settings

أبرز ملامح Web of Science

THE WEB OF SCIENCE CORE COLLECTION

Multidisciplinary: 12,760 Journals, 12,000+ annual conferences (8.5 M records), 70,645 Books

Selectivity and control of content:
high, consistent standards

Depth: 100+ years, including cited references

Consistency and reliability: ideal for research evaluation, e.g. field averages

Unmatched expertise: 50+ years of citation analysis and research evaluation

High quality metadata:
Funding acknowledgments from 2008

1 billion cited references, as far back as 1898

Scopus

Scopus

[Search](#) | [Sources](#) | [Analytics](#) | [Alerts](#) | [My list](#) | [Settings](#)

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Document search

[Author search](#)

[Affiliation search](#)

[Advanced search](#)

Search for:

in [Article Title, Abstract, Keywords](#)

[Search tips](#)

E.g., "heart attack" AND stress

[Add search field](#) |

Limit to:

Date Range (inclusive)

Published All years to Present

Added to Scopus in the last 7 days

Document Type

ALL

Subject Areas 1

Life Sciences (> 4,300 titles.)

Physical Sciences (> 7,200 titles.)

Health Sciences (> 6,800 titles. 100% Medline coverage)

Social Sciences & Humanities (> 5,300 titles.)

Resources

Follow [@Scopus](#) on Twitter for updates, news and more

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Search history


[Hide](#)

Search	Results	Set feed	Set alert	Save	Edit	Delete
You have not performed any searches in this session.						

Note: This Search history will contain the latest 50 searches you perform in this session.

Google Scholar

Images More...



Richard Feynman

California Institute of Technology
quantum mechanics - quantum electrodynamics
No verified email

Google scholar

Search Authors

Get my own profile - Help

Follow this author

17 Followers

Follow new articles
Follow new citations


Co-authors

No co-authors

Citation indices

	All	Since 2008
Citations	60440	17294
h-index	54	42
i10-index	85	68

Citations to my articles



Show: 100 ▾ 1-100 Next >

Title / Author	Cited by	Year
The Feynman lectures on physics RP Feynman, RB Leighton, M Sands, SB Treiman Physics Today 17, 45	8962 *	1964
Quantum mechanics and path integration RP Feynman, AR Hibbs McGraw-Hill	8952 *	1965
The Feynman Lectures on Physics, Vol. I: The New Millennium Edition: Mainly Mechanics, Radiation, and Heat RP Feynman, RB Leighton, M Sands Basic Books	8840	2011
Simulating physics with computers RP Feynman International journal of theoretical physics 21 (6), 467-488	3844	1982
Space-time approach to non-relativistic quantum mechanics RP Feynman	3420	1948

Indian Citation Index (ICI)

تجربة من العالم النامي

The screenshot displays the Indian Citation Index (ICI) website. At the top left is the ICI logo, and to its right is the text "Indian Citation Index". In the top right corner, there are navigation icons (home, star, plus, printer, mail) and a "Publisher Login" button. Below this, a welcome message reads "Welcome! Jewaharlal Nehru University" with a "Log out" button.

A navigation menu is located below the header, containing links for Home, About Us, Product, About ICI, Benefits & Resources, Training & Support, News & Event, FAQ, Site Map, and Contact Us. Below the menu, a red banner displays statistics: "Publications: 788", "Articles: 336,514", "References: 5,922,771", and "What's new?".

The main content area features a search interface with three input fields for "Title", "Institution", and "Publication Name". Each field has a dropdown menu and a search icon. Below the fields are "Search" and "Clear" buttons. A "TimeSpan" slider is set to "2004-2013".

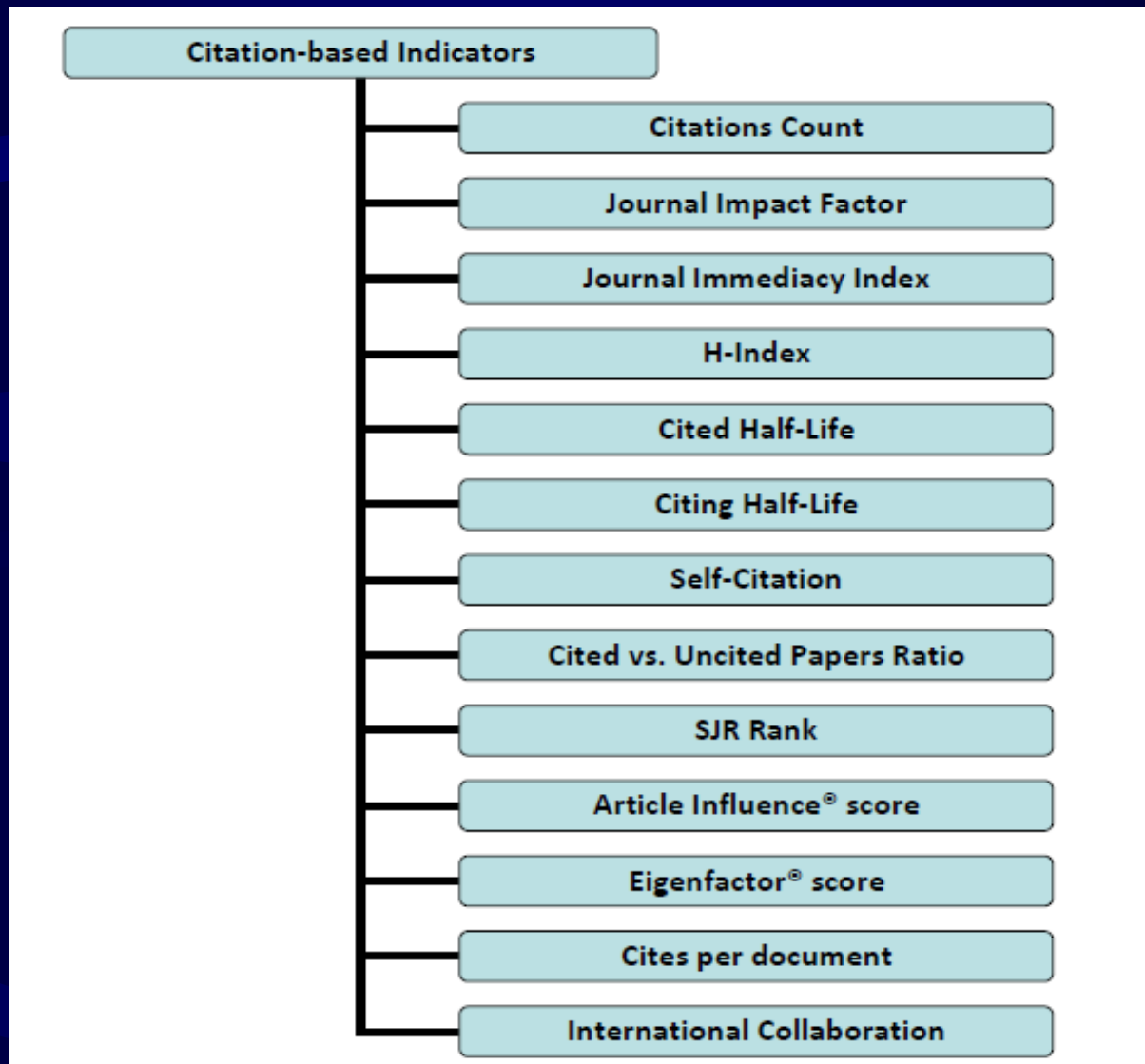
On the right side, there are two sections: "Search History" with a "*All Years" filter, and "ICI Other Products" which lists several citation indices with checkmarks: Indian Science Citation Index (ISCI), Indian Health Science Citation Index (IHSCI), Indian Agriculture Citation Index (IACI), Indian Social Science & Humanities Citation Index (ISSHCI), Indian Journals Citation Report (ICJR), Indian Science & Technology Abstracts (ISTA), and Directory of Indian R&D Journals (DoIJ). A note at the bottom of this list states "* Will be available shortly".

The footer contains links for Privacy Policy, Terms & Conditions, RSS Feed, Support, and Contact Us.

Indian Citation Index من المخطط لكشاف أن ينقسم إلى 7 مرادد بيانات

- *Indian Science Citation Index (ISCI)*
- *Indian Health Science Citation Index (IHSCI)*
- *Indian Agriculture Citation Index (IACI)*
- *Indian Social Science & Humanities Citation Index (ISSHCI)*
- *Indian Journals Citation Report (IJCR)*
- *Indian Science & Technology Abstracts (ISTA)*
- *Directory of Indian R&D Journals (DoIJ)*

المؤشرات ذات الصلة بالاستشهادات المرجعية



التحول من المؤشرات ذات الصلة بالاستشهادات المرجعية إلى المؤشرات ذات الصلة بالباحثين

Author Level Indicators

H Index

i10 index

Articles with Citation Data

Average Citation per Article

Total Citations Count

Cited vs. Uncited Papers Ratio

Eigenfactor® score

Impact Points

RG Score

مصادر المعلومات الهادفة إلى استخراج المؤشرات ذات الصلة بالباحثين

Name of the Indicator	Data Source	Researchers' Profiles/ Tools Used
H Index	Google Scholar, Web of Science, Scopus	Google Scholar Citations, ResearcherID
Citations Count	Google Scholar, Web of Science, Scopus	Google Scholar Citations, ResearchGate
i10 Index	Google Scholar	Google Scholar Citations
g Index	Google Scholar	PoP Software
Articles with citation	Web of Science	ResearcherID
Average citations per article	Web of Science, Google Scholar	ResearcherID, PoP Software
Eigenfactor® score	Web of Science	Social Science Research Network (SSRN)
Impact Points	ResearchGate	ResearchGate
RG Score	ResearchGate	ResearchGate

قياسات النشاط العلمي Scientometrics

- قياسات النشاط العلمي (وليس فحسب الإنتاج الفكري الذي يعد جزءاً من هذا النشاط)؛ مثل:
 - أعداد الباحثين / تخصصاتهم / وظائفهم
 - معدلات الإنفاق على البحث العلمي
 - إنتاجية المؤسسات الأكاديمية ومراكز البحث العلمي

القياسات العنكبوتية Webometrics

- كان المتخصصون في مجال **المكتبات والمعلومات** هم أول من نبه على هذا النمط من القياسات في **العالم العربي**

- بناء على هذه القياسات، تم اشتقاق أحد أبرز التطورات في عالم اليوم؛ وهي: **التصنيفات الدولية للجامعات**

University Rankings

Webometrics تصنيف

RANKING WEB
OF UNIVERSITIES

Repositories

Hospitals

Business
Schools

Research
Centers

Webometrics تصنيف

RANKING WEB OF UNIVERSITIES

[Repositories](#)[Hospitals](#)[Business Schools](#)[Research Centers](#)[HOME](#)[NORTH AMERICA](#)[LATIN AMERICA](#)[EUROPE](#)[ASIA](#)[AFRICA](#)[ARAB WORLD](#)[OCEANIA](#)[RANKING BY AREAS](#)[Home](#) » Arab World

Current edition

January 2016 Edition: 2016.1.1
(corrected)

About Us

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- [Contact Us](#)

About the Ranking

- [Methodology](#)
- [Objectives](#)
- [FAQs](#)
- [Notes](#)
- [Previous editions](#)

Arab World

ranking	World Rank ▲	University	Det.	Country	Presence Rank*	Impact Rank*	Openness Rank*	Excellence Rank*
1	289	King Saud University	+		436	373	159	333
2	592	Cairo University	+		883	753	727	626
3	607	King Abdulaziz University	+		165	1677	238	484
4	821	King Fahd University of Petroleum & Minerals	+		1847	1725	285	749
5	931	American University of Beirut	+		1153	1858	756	835
6	964	King Abdullah University of Science & Technology	+		1626	2410	2412	584

التصنيفات الدولية للجامعات

International University Rankings

The QS University Rankings: Arab Region is a dedicated ranking of the top universities in Arabic countries.

Published for the first time in 2014, this is a pilot version of the ranking with a methodology that has been developed to reflect priorities and challenges for universities in the region. We welcome any feedback on this pilot version of the ranking.



Please, select ONE indicator from the following list:

- Indicator:
- Overall
 - Academic Reputation
 - Employer Reputation
 - Faculty Student
 - Staff with PhD
 - Researcher Faculty

Show 10 entries

Search:

RANK	INSTITUTION	COUNTRY	SCORE
Overall			
1	King Fahd University of Petroleum & Minerals (KFUPM)	Saudi Arabia	100.0

تصنيف "كيو إس" QS للمنطقة العربية لعام 2014/2015

تعتمد تصنيفات الجامعات على كثير من المؤشرات البيبليومترية

- **Standard Bibliometrics Used in University Rankings**

Table 1: Standard Bibliometrics Used in Rankings. (© Pagell 2008, updated 2013)

METRIC	MEASUREMENTS	SOURCES
Publications	Number of articles	Web of Science
	Number of pages	Scopus Google Scholar Individual databases and websites
Citations	Number per article	Web of Science & Essential Science
	Number per faculty	Indicators
	Number per university	Scopus
	Highly cited papers	Google Scholar Individual databases (Science Direct, EBSCO, JStor, Proquest) Scholarly websites (Repec, ACM Portal)
H—Index	The number of papers with citation numbers higher or equal to the number of citations (Hirsch 2005)	Web of Science
		Scopus
		Individual calculations
Journal Quality	Journal Impact Factor	Journal Citation Reports
	Eigenfactor	Eigenfactor.org
	SNIP	SCImago
	SJR	Leiden

- Pagell, R. A. (2014). *Bibliometrics and University Research Rankings Demystified for Librarians*. In *Library and Information Sciences* (pp. 137-160). Springer Berlin Heidelberg.

تحليل سجلات المواقع العنكبوتية (الاستخدام / Usage) Web Log Analysis (WLA)

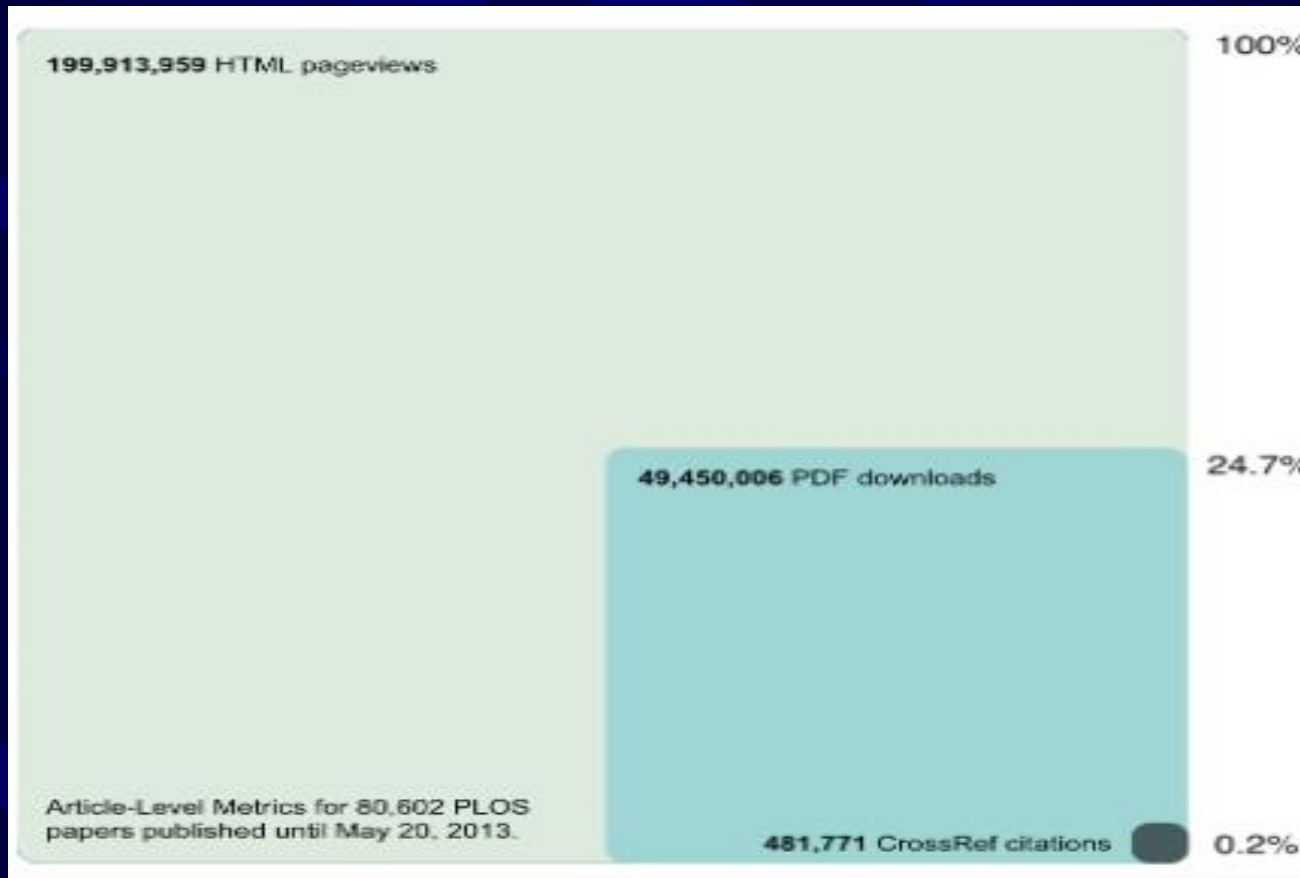
- indicators about when, how, and by whom a web server is visited
- **Web log analysis software**

https://en.wikipedia.org/wiki/List_of_web_analytics_software

- **تتطبق على جميع مصادر المعلومات العنكبوتية:**
 - المستودعات الرقمية/ مواقع المكتبات/ مواقع المؤسسات
 - مواقع الدوريات/ المقالات/ ... إلخ

تحليل سجلات المواقع العنكبوتية

Web Log Analysis (WLA)



القياسات ذات الصلة بالمقالات Article Level Metrics

Article-level vs. journal-level*

* المقالة سيدة الإنتاج العلمي

التحول من القياسات ذات الصلة بالدوريات: مثل معامل

التأثير Impact Factor

إلى القياسات ذات الصلة بالمقالات
Article Level

Metrics

الألتمتريقا / القياسات البديلة Altmetrics

• القياسات ذات الصلة بالمقالات ALM ← الألتمتريقا

- **Webometrics 2.0**
- **Scientometrics 2.0**

المراجع

- PLoS. Article-Level Metrics. Available at: <http://alm.plos.org/>
- Using Bibliometrics in the Library. 2016. Available at:
<http://www.slideshare.net/StateOfInnovation/using-bibliometrics-in-the-library>
- Bibliometrics. Available at:
<http://hlwiki.slais.ubc.ca/index.php/Bibliometrics>
- Pagell, R. A. (2014). Bibliometrics and University Research Rankings Demystified for Librarians. In Library and Information Sciences (pp. 137-160). Springer Berlin Heidelberg.
- **Impactstory blog**: Open science & research metrics news from the Impactstory team. Available at: <http://blog.impactstory.org/>

شكرًا لطيب استماعكم