COST TD1210 workshop: Alternative metrics or tailored metrics? Science dynamics for science policy Warsaw 9-10 November 2016

The Social Sciences & Humanities in the light of Google Scholar: tapping the bibliometric potential of an academic search engine

Alberto Martín-Martín & Emilio Delgado López-Cózar Facultad de Comunicación y Documentación Universidad de Granada (Spain)





The team







EMILIO DELGADO LÓPEZ-CÓZAR is a Professor of research methodology at the University of Granada, and cofounder of the EC3 Research Group (Science and Scientific Communication Evaluation). He has developed a number of tools for scientific evaluation, including IN-RECS, IN-RECJ, IN-RECH (impact factor of Spanish journals in the Social Sciences, Legal Sciences, and Humanities), the I-UGR Ranking of Spanish universities, RESH (Spanish Journals in the Social Sciences, an... See More



ALBERTO MARTÍN-MARTÍN is an FPU (University Professor Training) Research Fellow and PhD Candidate in the field of bibliometrics and scientific communication at the University of Granada. His earlier degrees in Library and Information Science are from the same university, where he graduated with honours. He is currently a member of the EC3 Research Group, where he has collaborated in various research projects, technical reports and journal articles since 2013.







ENRIQUE ORDUÑA-MALEA holds a PhD in Documentation from the Polytechnic University of Valencia, where he currently works as a Postdoctoral Researcher and Lecturer, particularly in the EC3 Research Group. He specialises in web metrics, particularly in the creation, diffusion and consumption of content and products on the web.



JUAN MANUEL AYLLÓN MILLÁN is an FPI (Predoctoral Research Grant) Research Fellow and a PhD Candidate in the field of bibliometrics and scientific communication at the University of Granada. His earlier degrees in Library and Information Science are from the same university. He is also a member of the EC3 Research Group.

What have we analyzed?









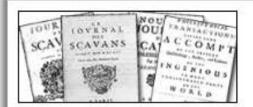


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ARTS, HUMANITIES, AND SOCIAL SCIENCES

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SUBJECT CATEGORY RANKINGS

SOCIAL SCIENCES (298)ANTHROPOLOGY COMMUNICATION (320)BUSINESS, ECONOMICS (1761)& MANAGEMENT EDUCATION (1126)GEOGRAPHY & URBAN STUDIES (548)(920)LAW LIBRARY & INFORMATION SCIENCE (277) POLITICAL SCIENCE. ADMINISTRATION & INTERNATIONAL RELATIONS (1074)PSYCHOLOGY (1032)(1007)SOCIOLOGY (202)MULTIDISCIPLINARY

ARTS & HUMANITIES

SOCIAL WORK

SPORT SCIENCES

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WORLD -> AFRICA EUROPE AMERICAS ASIA OCEANIA



(132)

(213)







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LIBRARY & INFORMATION SCIENCE

Filter by country .

Find a journal in this ranking

2.0		Parameter a contract of			Totals		Without journal self-citation			
ank	Country	y <u>Journal name</u>		H5-Index	H5-Median	H Citations	H5-Index	H Citations	9	
1	Second .	Journal of the American Society for Information Science and Technology	Q1	<u>54</u>	82	5708	52	5427	0	
2	200	International Journal of Information Management	Q1	<u>48</u>	75	5181	46	4999	(
3	ACCRECATE VALUE OF THE PARTY OF	Scientometrics	Q1	<u>46</u>	58	3790	40	3292	(
4	14147	Government Information Quarterly	Q1	<u>42</u>	70	3892	39	3543	5.	
5	Own	Journal of Informetrics	Q1	<u>39</u>	57	3097	36	2726	1	
6	tales	European Journal of Information Systems	Q1	<u>35</u>	49	2147	35	2144	3	
7	1	Information Processing & Management	Q1	29	38	1225	29	1209	1	
В	410	Journal of Information Science	Q1	<u>26</u>	39	1607	26	1567	8	
9		The Journal of Academic Librarianship	Q1	<u>26</u>	37	1150	25	1113	1	
10	100	Journal of Documentation	Q1	<u>26</u>	36	1057	24	1003	(
11	14/47	Library & Information Science Research	Q1	<u>26</u>	34	1143	25	1100	1	
2	Talket	Journal of Information Technology	Q1	<u>25</u>	47	1688	24	1641	1	
2	200	Online Information Review	Q1	<u>25</u>	47	1212	25	1150	(
4		College & Research Libraries	Q1	<u>25</u>	38	1157	24	1127	1	
15	100	The Information Society	Q1	24	35	1165	23	1132	3	
6		The Electronic Library	Q1	21	30	747	19	692	3	
7	Social	Proceedings of the American Society for Information Science and Technology	Q1	<u>21</u>	29	1012	19	960	(
8		El Profesional de la Información	Q1	21	28	672	19	611	(
18		Journal of Library Administration	Q1	21	28	635	20	618	1	
20	tal at	Library Management	Q1	20	28	586	20	575	3	

First | Previous | Next | Last







ARTS, HUMANITIES, AND SOCIAL SCIENCES

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Search a journal

POLAND



Displaying journals 1-20 of 152. Sorted by H5-Index, decreasingly.

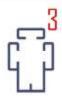
Filter by subject

Find a journal in this list

		Totals		Without jou	umal self-citat	ions
<u>Journal name</u>	H5-Index	H5-Median	H Citations	H5-Index	H Citations	%
Journal of Human Kinetics	<u>18</u>	23	506	17	476	0
Problemy Ekorozwoju: Studia Filozoficzno-sozologiczne	<u>15</u>	22	355	14	306	0
Biology of Sport	12	15	203	11	182	G
Contemporary Economics	<u>10</u>	19	211	9	206	0
Human Movement		18	205	10	198	G
Bank I Kredyt	10	12	180	9	167	0
Gospodarka Narodowa	10 10 9 9 9 9 9 8 8	14	134	9	119	0
Psychiatria Polska	9	13	114	6	58	•
Roczniki Nauk Rolniczych. Seria G, Ekonomika Rolnictwa	9	11	114	9	114	0
Studies in Second Language Learning and Teaching	9	10	103	8	91	0
Bulletin of Geography, Socio-economic Series	8	12	112	7	99	G
Archives of Psychiatry & Psychotherapy	8	11	95	8	95	0
Logic and Logical Philosophy	8	8	85	7	83	0
Przedsiębiorczość-edukacja	7	16	101	6	73	0
New Educational Review	7	11	89	7	89	0
Qualitative Sociology Review	7	11	86	6	82	G
Polish Journal of Management Studies	7	9	71	5	62	0
Operations Research and Decisions	7	9	67	7	66	0
Studia Regionalne I Lokalne	7	9	64	6	59	0
Journal of Agribusiness and Rural Development	7	8	64	6	48	0

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Problemy Ekorozwoju: Studia Filozoficznosozologiczne



IMPACT INDICATORS

Period		Totals	ny.	Withouth jo	ournal self citat	ions
	H5-Index	H5-Median	H Citations	H5-Index	H Citations	96
2010-2014	15	22	355	14	306	G

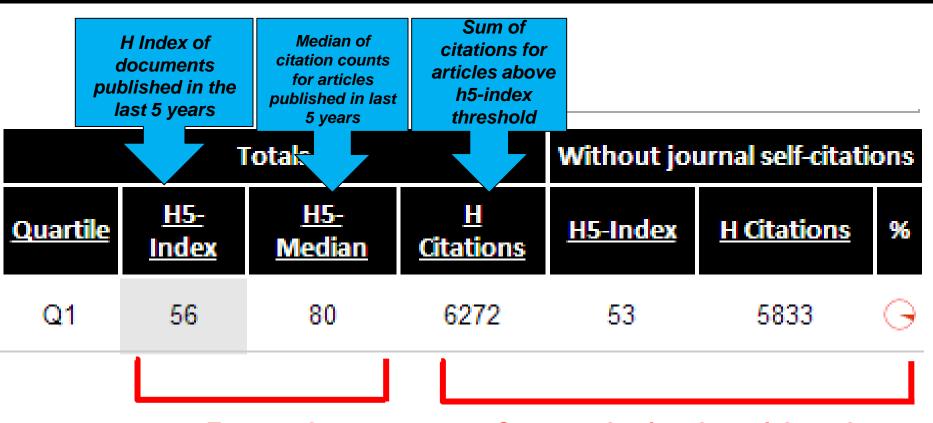
SUBJECT CATEGORIES AND RANKINGS

	Subject Category	Ranking	Position	Quartile
•	Geography & Urban Studies	Only core journals	121st (of 397)	Q2
•	Geography & Orban Studies	All journals	181st (of 538)	Q2

INDEXED IN

Source	Category / Status
	Geography, Planning and Development
SCImago Journal Rank	Management, Monitoring, Policy and Law
	Renewable Energy, Sustainability and the Environment
Ulrich's Periodicals Directory	Environmental Studies
Web of Science Core Collection	Environmental Studies

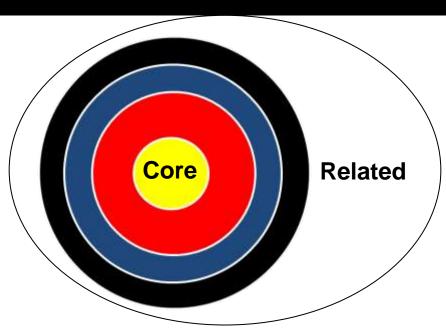
Indicators



Extracted directly from Google Scholar Metrics

Computed using the article and citation data available in Google Scholar Metrics

Classification







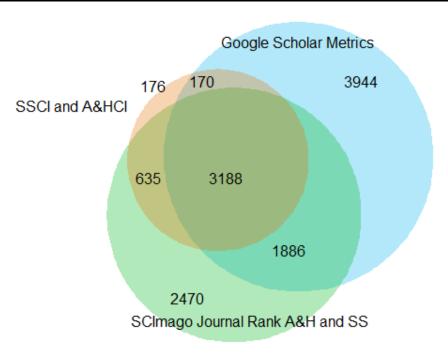




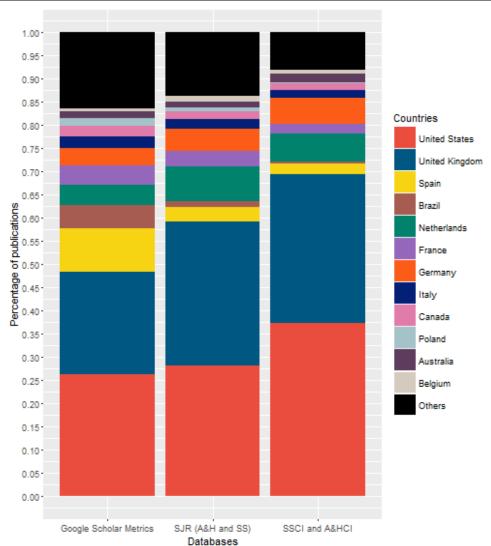


WEB OF SCIENCE

Coverage



IMPORTANT: Google Scholar Metrics only covers journals that are indexed in Google Scholar, have published at least 100 articles in the last 5-year period, and have received at least 1 citation



Polish journals: JSM: 152 / 9196 (1.6%); SJR: 69 / 8180 (0.8%); WoS: 13 / 4166 (0.3%)

Future plans for JSM

- Update indicators annually: a more current version of Google Scholar Metrics (GSM) is already available
- Update journal detail page to show evolution of impact through time
- Switch to data from Google Scholar (search engine) to get data for journals not in GSM: even better coverage
- Replace current journal classification scheme with article-level classification (maybe using reference and/or citing articles)
- Computing author self-citations (better metadata is needed), distribution of citations by journal (to detect closely related journals, or potential citation cartels)...



PUBLISHERS

Publishers Scholar Metrics



INICIO ACERCA DE METODOLOGÍA EQUIPO + PROYECTOS

Ciencias Sociales Ciencias Jurídicas Top 100 editoriales más citadas

Google" Büsqueda personalizada

Buscar

Ciencias Humanas

Artes



Publishers Scholar Metrics es un producto realizado por el Grupo de Evaluación de la Ciencia y la Comunicación Científica (EC3).

<u>Universidad de Granada</u>. Campus de Cartuja s/n. Granada (España). Universidad Politécnica de Valencia, Camino de Vera s/n. Valencia (España).



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- Aims to measure impact of scientific book publishers based on citations
- Sample of highly cited books (top 3%) published by ~41k A&H and SS professors working in public Spanish universities. Data collected from Google Scholar in 2012 (n ~ 7200)
- 68 discipline rankings (49 in Social Sciences and Law, 39 in Arts and Humanities)

Publishers Scholar Metrics



Sociología











Indicators: Nº of books, and sum of citations (relative to highest element in the ranking)

			Buscar:					
R	\$	Editorial	\$	Libros	\$	Citas	\$	Índice global 💠
1		Alianza		100	0.00	100	0.00	100.00
2		Siglo XXI de España		95	5.65	64	1.77	61.95
3		Centro de Investigaciones Sociológicas (CIS)		95	5.65	58	3.82	56.26
4		Ministerio de Sanidad		69	9.57	48	3.49	33.73
5		Ariel		47	7.83	48	3.38	23.14
6		Ministerio de Trabajo		52	2.17	37	7.99	19.82
7		Síntesis		21	1.74	74	1.50	16.20
8		Anthropos		34	1.78	36	5.85	12.82
9		Trotta		30).43	38	3.17	11.62
10		Taurus		26	5.09	37	7.33	9.74



AUTHORS





H Index Scholar 2012



INICIO

ACERCA DE METODOLOGÍA FAQ EQUIPO NOTICIAS CONTACTO

OTROS PROYECTOS

Inicio

Ciencias **Sociales**

Ciencias Humanas

Ciencias **Jurídicas**

> **Bellas Artes**



H-Index Scholar es un producto realizado por el Grupo de Evaluación de la Ciencia y la Comunicación Científica (EC3). Universidad de Granada. Campus de Cartuja s/n. Granada (España).





H Index Scholar 2012



- Publication data about 4,993 A&H and SS professors working in public Spanish universities was extracted from Google Scholar in 2012
- Only authors in the first tercile are displayed
- 68 discipline rankings (49 in Social Sciences and Law, 39 in Arts and Humanities)

Ciencias sociales



Ciencias C Jurídicas H

Ciencias Humanas





ECONOMÍA	EDUCACIÓN	PSICOLOGÍA	SOCIOLOGÍA
Comercialización e Inv. de Mercados	Didáctica y Organización Escolar	Met. y Ciencias del Comportamiento	Sociología
Fundamentos del Análisis Económico	Didáctica Expresión Corporal	Personalidad, Evaluación y Trat. Psicológico	Trabajo Social y Servicios Sociales
Mét. Cuantitativos Economía Empresa	Didáctica Expresión Musical	Psicobiología	COMUNICACIÓN
Organización de Empresas	Didáctica Expresión Plástica	Psicología Básica	Audiovisual y Publicidad
Economía Aplicada	Didáctica Lengua y Literatura	Psicología Evolutiva y de la Educación	Periodismo
Economía Financiera y Contabilidad	Didáctica Matemática	Psicología Social	DOCUMENTACIÓN
Economía, Sociología y Política Agraria	Didáctica Ciencias Experimentales		ANTROPOLOGÍA
GEOGRAFÍA	Didáctica Ciencias Sociales		CIENCIA POLÍTICA Y DE LA
Geografía Física	Educación Física y Deportiva		ADMINISTRACIÓN
Geografía Humana	Métodos de Inv. y Diag. en		
Análisis Geográfico Regional	Educación		
Urbanística y Ordenación Territorio	Teoría e Historia de la Educación		

Lengua Española







Indicators

Buscar:

F. Hispánicas

Fecha de actualización: 17-18/09/2012

		Duscal.						
R ¢	PROFESOR	Ф	h_index	Ф	g_index	Φ	UNIVERSIDAD	ф
1	Bosque Muñoz, Ignacio		31		65		UCM	
2	Demonte, Violeta		20		49		UAM	
3	Alvar Ezquerra, Manuel		19		34		UCM	
4	Fuentes Rodríguez, Catalina		17		30		US	
5	Rojo Sánchez, Guillermo Antonio		16		34		USC	
6	Cano Aguilar, Rafael		16		29		US	
7	Moreno Fernández, Francisco		15		33		UAH	
8	Portolés Lázaro, José		14		32		UAM	
9	Escandell Vidal, María Victoria		13		35		UNED	
10	Narbona Jiménez, Antonio		13		25		US	

An alternative approach

Google Citations



Google Citations



Alberto Martín-Martín



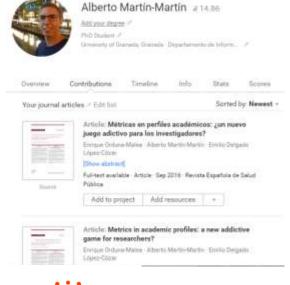


PhD student. EC3 Research Group, University of Granada
Bibliometrics, Scientometrics, Information Science, Research evaluation
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Title	+ Add	■ More	1–20	Cited by	Year
E Ord		M Ayllón, A Ma	holar: playing the numbers tín-Martín, E Delgado López-Cózar	34 *	2014
Altmo Rese A Mar	ometrics, So etrics in the earchGate,	cientometrics Google Sch Mendeley & Orduna-Malea,	ring those who count. Presence of s, Informetrics, Webometrics and olar Citations, ResearcherID, Twitter JM Ayllon, ED Lopez-Cozar	22	2016
Thon D Torr	nson Reute res-Salinas, A	rs: discipline Martin-Martin,	age of the Data Citation Index – is, document types and repositories E Fuente-Gutiérrez ón Científica 37 (1), e036	17	2014
E Ord		VI Ayllón, A Ma	ize of Google Scholar tín-Martín, ED López-Cózar	13	2015

ResearchGate





RESEARCHERID



La Biblioteconomía y Documentación española según Google Scholar Citations

INICIO / ACERCA DE / METODOLOGÍA / EQUIPO / OTROS PROYECTOS













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DOCUMENTOS

REVISTAS

EDITORIALE

INSTITUCIONES

Mostrando autores 1-25 de 338. Ordenados por citas (últimos 5 años), descendentemente.

Busque un autor

		Últim	os 5 años	To	tales	Web of Science			ResearchGate	
<u>Nombre</u>	<u>Institución</u>	Citas	Índice H	Citas	Índice H	Docs	Citas	Índice H	RG Score	Impact Points
Félix de Moya Anegón	CSIC	2933	26	4722	34	117	998	16	35,3	162,0
Ismael Rafols	CSIC/UPV/SPRU	2029	21	2509	24	39	1141	17	26,8	74,7
Emilio Delgado López-Cózar	UGR	1585	20	1933	23	53	318	9	30,8	174,1
Rafael Aleixandre-Benavent	CSIC/UV	1239	15	2064	21	93	289	10	33,6	148,3
Victor Herrero-Solana	UGR	1224	15	2357	23	28	210	6	24,1	38,9
Isidro F. Aguillo	CSIC	1212	16	1919	23	62	381	11	29,7	123,4
Daniel Torres-Salinas	UGR	1086	16	1165	20	48	165	8	-	-
Evaristo Jimenez-Contreras	UGR	1063	16	1466	21	48	338	9	-	-
Zaida Chinchilla-Rodríguez	CSIC	937	15	1491	21	31	190	7	33,2	56,6
Vicente Pablo Guerrero Bote	UNEX	893	16	1291	21	38	389	12	26,7	64,8
Benjamin Vargas-Quesada	UGR	837	14	1427	19	29	206	7	27,9	62,6
José Luis Ortega	CSIC	804	14	1052	15	42	277	9	26,0	62,0
Rodrigo Costas	CWTS	777	16	891	16	29	325	10	23,7	49,0
José Antonio Cordón García	USAL	774	14	1075	16	16	14	2	14,5	7,8
Yusef Hassan Montero	SCImago Lab	692	13	1168	16	6	24	3	-	-
Rafael Ruiz-Perez	UGR	625	12	770	14	20	151	6	22,3	101,0
Lluís Codina	UPF	622	13	1403	20	27	41	4	16,4	13,6
Ernest Abadal	UB	542	12	943	16	24	47	3	15,2	12,2
María Pinto Molina	UGR	533	13	1125	18	49	181	8	25,9	48,3
Julio Alonso Arevalo	USAL	529	13	676	15	9	5	1	10,3	2,3
Elena Corera-Álvarez	CSIC	517	11	876	12	8	119	4	21,5	21,8
José-Antonio Gómez-Hernández	UM	497	11	1003	17	7	5	1	4,4	0,7
Adolfo Alonso-Arroyo	UV	484	12	589	14	40	118	6	30,8	108,2
Elias Sanz-Casado	UC3M	479	10	958	15	38	80	5	22,9	38,2
José Antonio Merlo Vega	USAL	437	11	959	17	6	9	2	7,4	4,3

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Fecha de actualización: 27/02/2015

Autores con perfil en ResearchGate pero no en Google Scholar Citations

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LIS researchers in Spain

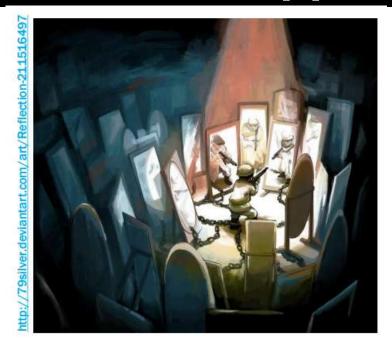
336 authors in GSC 68 not in GSC

Other sources
ResearcherID (WoS)
ResearchGate

Indicators
Sum of citations
H Index
No of documents
RG Score
Impact Points

Aggregating data
Highly cited docs (HCD),
% of HCD by journal,
book publisher, and
institution

The «Mirrors» approach



There are many platforms that reflect (mirror) scientific activity on the Web. An inclusive study of the impact of scientific activity must contemplate as many of them as possible.



Scholar Mirrors



Bibliometrics, Scientometrics, Informetrics, Webometrics, and Altmetrics in Google Scholar Citations, ResearcherlD, Researchgate, Mendeley, and Twitter



Scholar Mirrors



Bibliometrics, Scientometrics, Informetrics, Webometrics, and Altmetrics in Google Scholar Citations, ResearcherID, Researchgate, Mendeley, and Twitter

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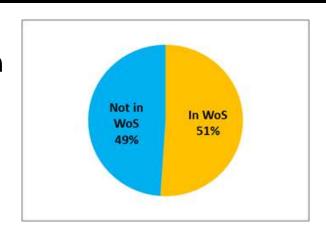
Word cloud of the keywords used by the researchers with a public Google Scholar Citations profile analysed in this product. Size indicates frequency of use in our sample

Why Google Scholar?

- Best overall coverage: no country, language, or document type restrictions, which is necessary for good coverage of A&H and SS
- Most densely populated citation graph in existence
- If we only consider documents covered by WoS, Google Scholar data for those documents tell the same story
- Free (as in free beer)

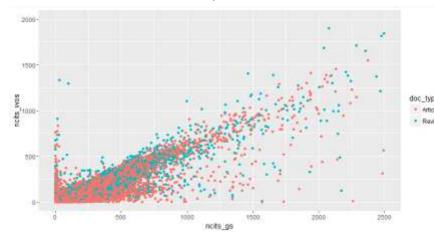
Why Google Scholar?

 Sample of 64,000 highly cited documents in Google Scholar: half are covered by WoS, half aren't (among which we can find many books)



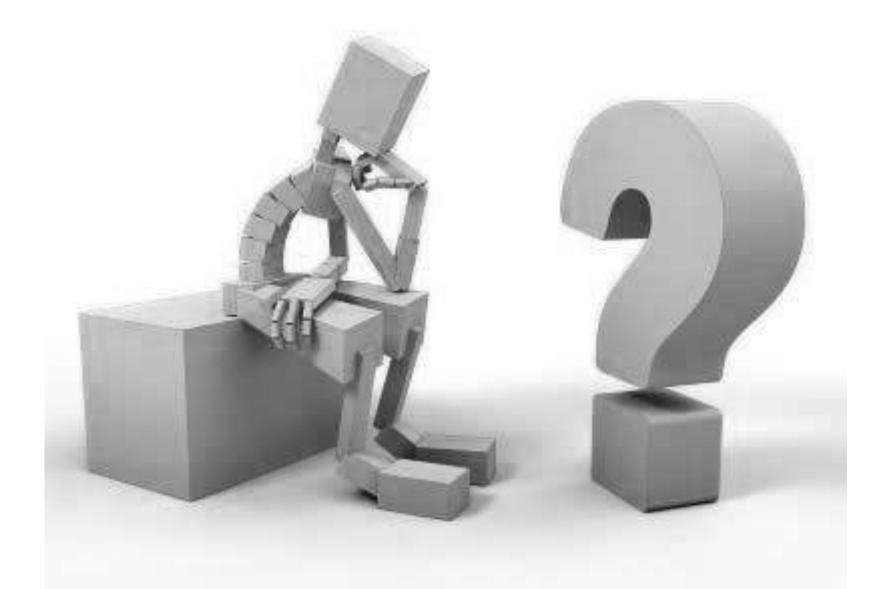
 PRELIMINARY RESULTS: Analysis of most articles and reviews published in 2009 covered by Web of Science (~1 million

documents):



Citation Index	N	spearman.cor	p.value	prop.cited.gs	prop.cited.wos	ratio of gs_cit to wos_cit (avg)
Sciences	863801	0,94	0,00	0,97	0,95	1,68
Social Sciences	109232	0,90	0,00	0,97	0,94	2,58
Art & Humanities	13487	0,83	0,00	0,84	0,69	2,52

Drawbacks



Errors in the data Enough quality?



注 10%?

Large units of analysis: no problem

Individuals: check data first

Even with «dirty» data, it measures more and better



Biggest dange: manipulation



The Googledependency



Anterior

919293949596979899100

Siguiente

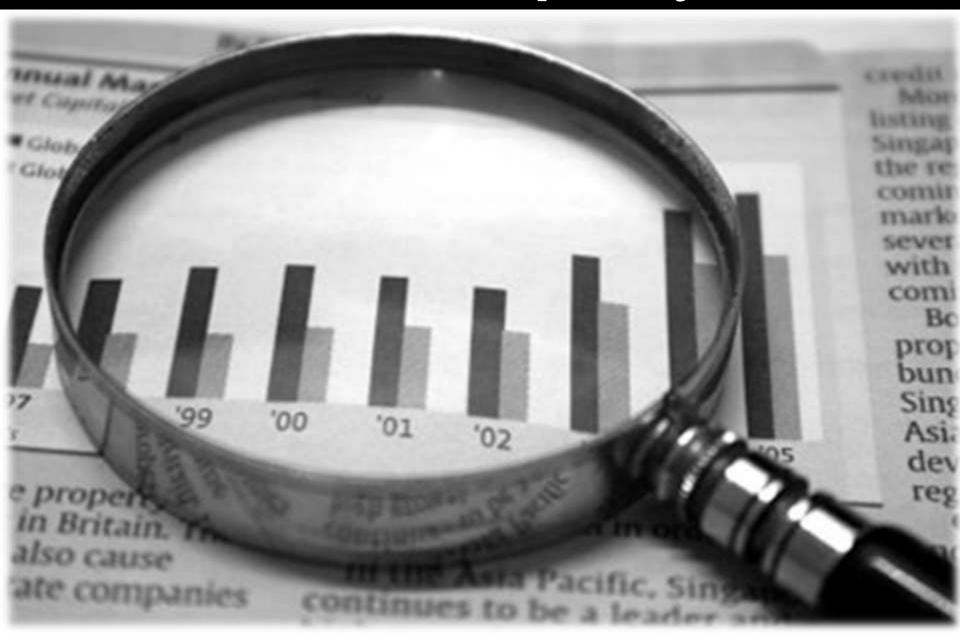
Académico

Página 100 de 24.700 resultados (0,22 s)





Lack of transparency



It sheds light where there was darkness



Thank you for your attention ©

Questions?

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