LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : JURNAL ILMIAH

Judul Jurnal Ilmiah (Artikel)	:	A Discrimination Index Based on Jain's Fairness Index to Differentiate Researchers with Identical H-index Values		
Jumlah Penulis	:	3 orang (**Adian Fatchur Rochim,** Abdul Muis, Riri Fitri Sari)		
Status Pengusul	:	penulis ke-1		
Identitas Jurnal Ilmiah	:	a. Nama Jurnal	:	Journal of Data and Information Science
		b. Nomor ISSN	:	2543-683X
		c. Vol, No., Bln Thn	:	Vol. 5 No. 4, Juli 2020
		d. Penerbit	:	Sciendo, De Gruyter Open Ltd. Poland
		e. DOI artikel (jika ada)	:	https://doi.org/10.2478/jdis-2020-0026
		f. Alamat web jurnal	:	https://content.sciendo.com/view/journals/jdis/jdis-overview.xml
		Alamat Artikel	:	https://content.sciendo.com/view/journals/jdis/5/4/article-p5.xml
		g. Terindex	:	Scopus, Q1, SJR 0,57

Kategori Publikasi Jurnal Ilmiah (beri ✓pada kategori yang tepat) :

- [√] Jurnal Ilmiah Internasional
- [ ] Jurnal Ilmiah Nasional Terakreditasi
- [ ] Jurnal Ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi jurnal (10%)	3,60	3,50	36,55
b. Ruang lingkup dan kedalaman pembahasan (30%)	11,50	10,80	11,15
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	11,70	11,10	11,40
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	11,50	10,70	11,10
Total = (100%)	**38,3**	**36,1**	**37,2**
Nilai Pengusul = (60% x 37,2) = 22,32			

Semarang, 10 Januari 2021

Reviewer 2

Dr. Iwan Setiawan, S.T., M.T.
NIP. 197309262000121001
Unit : Dept. Teknik Elektro FT UNDIP

Reviewer 1

Dr. Ir. R. Rizal Isnanto, S.T., M.M., M.T., IPM
NIP. 197007272000121001
Unit : Dept. Teknik Komputer FT UNDIP

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Kategori Publikasi Jurnal Ilmiah (beri ✓pada kategori yang tepat) :
- [√] Jurnal Ilmiah Internasional
- [ ] Jurnal Ilmiah Nasional Terakreditasi
- [ ] Jurnal Ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir Yang Diperoleh
	Internasional [40]	Nasional Terakreditasi [ ]	Nasional Tidak Terakreditasi [ ]	
a. Kelengkapan unsur isi jurnal (10%)	4,00			3,60
b. Ruang lingkup dan kedalaman pembahasan (30%)	12,00			11,50
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12,00			11,70
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12,00			11,50
Total = (100%)	**40,00**			**38,30**
Nilai Pengusul = (60% x 38,30) = 22,98				

Catatan Penilaian artikel oleh Reviewer :

1. **Kesesuaian dan kelengkapan unsur isi jurnal:**
   Journal of Data and Information Science memiliki kelengkapan yang cukup. Makalah yang dipublikan di jurnal ini sesuai dengan cakupan topik dari Journal of Data and Information Science
2. **Ruang lingkup dan kedalaman pembahasan:**
   Topik dari makalah adalah "A Discrimination Index Based on Jain's Fairness Index to Differentiate Researchers with Identical H-index Values". Pembahasan sudah dilakukan secara mendalam, dilengkapi dengan flowchart, gambar, grafik, dan rumus yang cukup lengkap
3. **Kecukupan dan kemutakhiran data/informasi dan metodologi:**
   Indeks diskriminasi yang digunakan sebagai objek penelitian berbasis pada indeks fairness Jain untuk membedakan para peneliti dengan nilai H-index uang sama sudah mencukupi untuk digunakan dalam pengambilan kesimpulan penelitian. Kesimpulan yang diambil sudah sesuai dengan metodologi yang dipakai.
4. **Kelengkapan unsur dan kualitas terbitan:**
   Terbitan dari Journal of Data and Information Science sudah cukup lengkap dalam aspek pemenuhan persyaratan sebagai jurnal ilmiah internasional bereputasi Q1, serta kualitas terbitan online sudah bagus.

Semarang, 10 Januari 2021

Reviewer 1

Dr. Ir. R. Rizal Isnanto, S.T., M.M., M.T., IPM
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Unit : Dept. Teknik Komputer FT UNDIP

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		Alamat Artikel : https://content.sciendo.com/view/journals/jdis/5/4/article-p5.xml
		g. Terindex : Scopus, Q1, SJR 0,57

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- [ ] Jurnal Ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir Yang Diperoleh
	Internasional [40]	Nasional Terakreditasi [ ]	Nasional Tidak Terakreditasi [ ]	
a. Kelengkapan unsur isi jurnal (10%)	4,00			3,50
b. Ruang lingkup dan kedalaman pembahasan (30%)	12,00			10,80
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12,00			11,10
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12,00			10,70
Total = (100%)	**40,00**			**36,10**
Nilai Pengusul = (60% x 36,10) = 21,66				

Catatan Penilaian artikel oleh Reviewer :

1. **Kesesuaian dan kelengkapan unsur isi jurnal:** Jurnal cukup bereputasi dengan reviewer para pakar di bidangnya. Kelengkapan makalah lengkap dari mulai abstrak, metodologi, sumber data yang digunakan dan hasil serta kontribusi yang cukup penting bagi perkembangan ilmu pengetahuan.
2. **Ruang lingkup dan kedalaman pembahasan:**
   Makalah cukup lengkap membahas mengenai proposal usulan pentingnya pembedaan nilai h-index peneliti. Uraian contoh perhitungan perlu diberikan secara praktis.
3. **Kecukupan dan kemutakhiran data/informasi dan metodologi:**
   Literatur yang digunakan cukup signifikan dan baru. Topik yang diangkat sedang banyak diperbincangkan, melihat dari beberapa artikel lain sejenis pada jurnal tersebut.
4. **Kelengkapan unsur dan kualitas terbitan:**
   Unsur jurnal lengkap, kualitas baik dengan SJR cukup tinggi 0,5.

Semarang, 10 Januari 2021
Reviewer 2

Dr. Iwan Setiawan, S.T., M.T.
NIP. 197309262000121001

Document details

Journal of Data and Information Science Open Access
Volume 5, Issue 4, 1 November 2020, Pages 5-18

A Discrimination Index Based on Jain's Fairness Index to Differentiate Researchers with Identical H-index Values (Article) (Open Access)

Rochim, A.F.[a], Muis, A.[b], Sari, R.F.[b]

[a]Department of Computer Engineering, Diponegoro University, Tembalang Semarang, 50275, Indonesia
[b]Department of Electrical Engineering, Universitas Indonesia, Depok, 16424, Indonesia

Abstract

View references (24)

This paper proposes a discrimination index method based on the Jain's fairness index to distinguish researchers with the same H-index. A validity test is used to measure the correlation of D-offset with the parameters, i.e. H-index, the number of cited papers, the total number of citations, the number of indexed papers, and the number of uncited papers. The correlation test is based on the Saphiro-Wilk method and Pearson's product-moment correlation. The result from the discrimination index calculation is a two-digit decimal value called the discrimination-offset (D-offset), with a range of D-offset from 0.00 to 0.99. The result of the correlation value between the D-offset and the number of uncited papers is 0.35, D-offset with the number of indexed papers is 0.24, and the number of cited papers is 0.27. The test provides the result that it is very unlikely that there exists no relationship between the parameters. For this reason, D-offset is proposed as an additional parameter for H-index to differentiate researchers with the same H-index. The H-index for researchers can be written with the format of "H-index: D-offset". D-offset is worthy to be considered as a complement value to add the H-index value. If the D-offset is added in the H-index value, the H-index will have more discrimination power to differentiate the rank of the researchers who have the same H-index. © 2020 2020 Adian Fatchur Rochim et al., published by Sciendo.

SciVal Topic Prominence

Topic: Hirsch Index | Self-Citation | Journal Impact Factor

Prominence percentile: 99.016

Author keywords

D-offset | Discrimination index | Jain's fairness index | Validity

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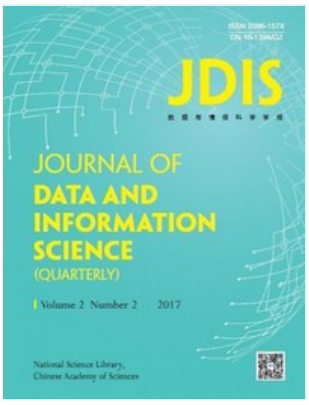

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JDIS devotes itself to the study and application of the theories, methods, techniques, services, and infrastructural facilities using big data to support knowledge discovery for decision and policy making. The basic emphasis is research that focuses on big data, analytics, and knowledge discovery, and supports decision making. Special attention is given to knowledge discovery to detect and predict structures, trends, behaviors, relations, and evolutions and disruptions in scientific research. This includes issues of innovation, business, politics, security, media and communications, and social development. The big data topics may include metadata or full content data, text or non-textural data, structured or non-structural data, domain specific or cross-domain data, and dynamic or interactive data.

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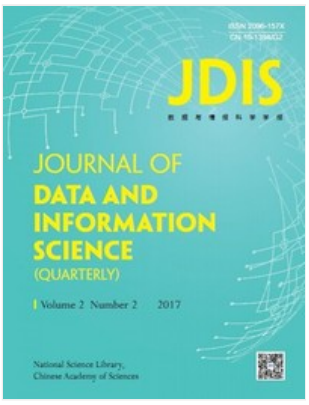

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in Journal of Data and Information Science

Novel Approaches to the Development and Application of Informetric and Scientometric Tools

Giuseppe Catalano, Cinzia Daraio, Jacqueline Leta, Henk F. Moed, Giancarlo Ruocco, and Xiaolin Zhang

Article Category: Editorial | Page Range: 1–4 | Published online: 21 Nov 2020

PDF

A Discrimination Index Based on Jain's Fairness Index to Differentiate Researchers with Identical H-index Values

Adian Fatchur Rochim, Abdul Muis, and Riri Fitri Sari

Article Category: Research Article | Page Range: 5–18 | Published online: 24 Jul 2020

ABSTRACT

Purpose

This paper proposes a discrimination index method based on the Jain's fairness index to distinguish researchers with the same H-index.

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A Micro Perspective of Research Dynamics Through "Citations of Citations" Topic Analysis

Xiaoli Chen and Tao Han

Article Category: Research Article | Page Range: 19–34 | Published online: 28 Jul 2020

ABSTRACT

Purpose

Research dynamics have long been a research interest. It is a macro perspective tool for discovering temporal research trends of a certain

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PDF

Can Crossref Citations Replace Web of Science for Research Evaluation? The Share of Open Citations

Tomáš Chudlarský and Jan Dvořák

Article Category: Research Article | Page Range: 35–42 | Published online: 02 Sep 2020

ABSTRACT

Purpose

We study the proportion of Web of Science (WoS) citation links that are represented in the Crossref Open Citation Index (COCI), with the po

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Exploring the Potentialities of Automatic Extraction of University Webometric Information

Gianpiero Bianchi, Renato Bruni, Cinzia Daraio, Antonio Laureti Palma, Giulio Perani, and Francesco Scalfati

Article Category: Research Article | Page Range: 43–55 | Published online: 21 Nov 2020

ABSTRACT

Purpose

The main objective of this work is to show the potentialities of recently developed approaches for automatic knowledge extraction directly

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PDF

The Association between Researchers' Conceptions of Research and Their Strategic Research Agendas

João M. Santos and Hugo Horta

Article Category: Research Article | Page Range: 56–74 | Published online: 21 Nov 2020

ABSTRACT

Purpose

In studies of the research process, the association between how researchers conceptualize research and their strategic research agendas has

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PDF

Current Status and Enhancement of Collaborative Research in the World: A Case Study

of Osaka University

Shino Iwami, Toshihiko Shimizu, Melvin John F. Empizo, Jacque Lynn F. Gabayno, Nobuhiko Sarukura, Shota Fujii, and Yoshinari Sumimura

Article Category: Research Article | Page Range: 75–85 | Published online: 22 Sep 2020

ABSTRACT

Purpose

The purpose of this research is to provide evidence for decision-makers to realize the potentials of collaborations between countries/regio

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Global Collaboration in Artificial Intelligence: Bibliometrics and Network Analysis from 1985 to 2019

Haotian Hu, Dongbo Wang, and Sanhong Deng

Article Category: Research Article | Page Range: 86–115 | Published online: 07 Sep 2020

ABSTRACT

Purpose

This study aims to explore the trend and status of international collaboration in the field of artificial intelligence (AI) and to understa

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Priorities for Social and Humanities Projects Based on Text Analysis

Ülle Must

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ABSTRACT

Purpose

Changes in the world show that the role, importance, and coherence of SSH (social sciences and the humanities) will increase significantly

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Topic Evolution and Emerging Topic Analysis Based on Open Source Software

Xiang Shen and Li Wang

Article Category: Research Article | Page Range: 126–136 | Published online: 07 Sep 2020

ABSTRACT

Purpose

We present an analytical, open source and flexible natural language processing and text mining method for topic evolution, emerging topic d

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Scientometric Analysis of Research Output from Brazil in Response to the Zika Crisis Using e-Lattes

Ricardo Barros Sampaio, Antônio de Abreu Batista Jr, Bruno Santos Ferreira, Mauricio L. Barreto, and Jesús P. Mena-Chalco

Article Category: Research Article | Page Range: 137–146 | Published online: 02 Sep 2020

ABSTRACT

Purpose

This paper aims to test the use of e-Lattes to map the Brazilian scientific output in a recent research health subject: Zika Virus.

Design/m

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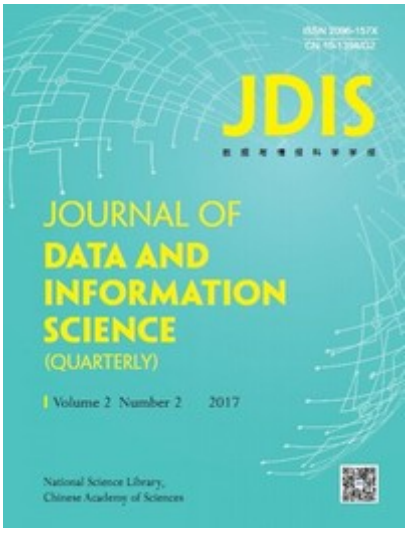
Correction: Corrigendum: The Gender Patenting Gap: A Study on the Iberoamerican Countries

Danilo S. Carvalho, Lydia Bares, and Kelyane Silva

Article Category: Corrigenda | Page Range: 147–150 | Published online: 22 Sep 2020

PDF

JOURNAL + ISSUES



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Research Paper

A Discrimination Index Based on Jain's Fairness Index to Differentiate Researchers with Identical H-index Values

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Abstract

Purpose: This paper proposes a discrimination index method based on the Jain's fairness index to distinguish researchers with the same H-index.

Design/methodology/approach: A validity test is used to measure the correlation of D-offset with the parameters, i.e. H-index, the number of cited papers, the total number of citations, the number of indexed papers, and the number of uncited papers. The correlation test is based on the Saphiro-Wilk method and Pearson's product-moment correlation.

Findings: The result from the discrimination index calculation is a two-digit decimal value called the discrimination-offset (D-offset), with a range of D-offset from 0.00 to 0.99. The result of the correlation value between the D-offset and the number of uncited papers is 0.35, D-offset with the number of indexed papers is 0.24, and the number of cited papers is 0.27. The test provides the result that it is very unlikely that there exists no relationship between the parameters.

Practical implications: For this reason, D-offset is proposed as an additional parameter for H-index to differentiate researchers with the same H-index. The H-index for researchers can be written with the format of "H-index: D-offset".

Originality/value: D-offset is worthy to be considered as a complement value to add the H-index value. If the D-offset is added in the H-index value, the H-index will have more discrimination power to differentiate the rank of the researchers who have the same H-index.

Keywords Discrimination index; D-offset; Validity; Jain's fairness index

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Research Paper

A Micro Perspective of Research Dynamics Through "Citations of Citations" Topic Analysis

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Abstract

Purpose: Research dynamics have long been a research interest. It is a macro perspective tool for discovering temporal research trends of a certain discipline or subject. A micro perspective of research dynamics, however, concerning a single researcher or a highly cited paper in terms of their citations and "citations of citations" (forward chaining) remains unexplored.

Design/methodology/approach: In this paper, we use a cross-collection topic model to reveal the research dynamics of topic disappearance topic inheritance, and topic innovation in each generation of forward chaining.

Findings: For highly cited work, scientific influence exists in indirect citations. Topic modeling can reveal how long this influence exists in forward chaining, as well as its influence.

Research limitations: This paper measures scientific influence and indirect scientific influence only if the relevant words or phrases are borrowed or used in direct or indirect citations. Paraphrasing or semantically similar concept may be neglected in this research.

Practical implications: This paper demonstrates that a scientific influence exists in indirect citations through its analysis of forward chaining. This can serve as an inspiration on how to adequately evaluate research influence.

Originality: The main contributions of this paper are the following three aspects. First, besides research dynamics of topic inheritance and topic innovation, we model topic disappearance by using a cross-collection topic model. Second, we explore the length and character of the research impact through "citations of citations" content analysis. Finally, we analyze the research dynamics of artificial intelligence researcher Geoffrey Hinton's publications and the topic dynamics of forward chaining.

Keywords Research dynamics; Forward chaining; Topic model; Scientific influence; Citations content analysis

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Editorial

Novel Approaches to the Development and Application of Informetric and Scientometric Tools

Special Issue of Journal of Data and Information Science on ISSI2019 Conference-Part II

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This is the second part of the *Journal of Data and Information Science* (JDIS) Special Issue on ISSI 2019, the *17th International Conference on Scientometrics and Informetrics* (ISSI2019) held in Rome, on 2–5 September 2019 and includes additional 10 selected posters presented during the conference largely expanded by the authors afterwards.

The papers included in this volume have been grouped in three broad themes:

- Indicators & Databases (4 papers);
- Social context, Innovation, and Policy (3 papers);
- Application domains (3 papers).

Below we report a summary of the contents of the papers inviting JDIS readers to read the full versions available on the journal's website.

Indicators & Databases

The papers included in this topic range from new indicators' proposal to investigation of research dynamics at micro-level, from the citation links in the Crossref Open Citation Index to automatic extraction of information from universities' website.

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