

RI²A – Towards a Responsible Institute Impact Assessment

Gustaf Nelhans¹, Evgenios Vlachos², Maéva Vignes²

¹University of Borås; ²University of Southern Denmark

Liber, Dublin

28 June, 2019



Outline

- Reflection about the ***performativity of the 'citation culture'*** and the role of metrics in research evaluation and funding
- Going back to the drawing-board to suggest bibliometric impact analytics ***focuesing on relational (who, where and how) aspects of citation analysis*** rather than on the actual numbers.
- Incentives: to create analytics that are ***long term reliable***, useful for ***different stakeholders*** (policy, leadership, researchers), and at the same time ***easy to collect*** using available resources and ***adaptable*** to users' needs.
- Future: ***Societal impact***: Patents, companies, social media, and policy documents (e.g. clinical guidelines, gov'ment white papers).

Citations as performativity - “being cited”

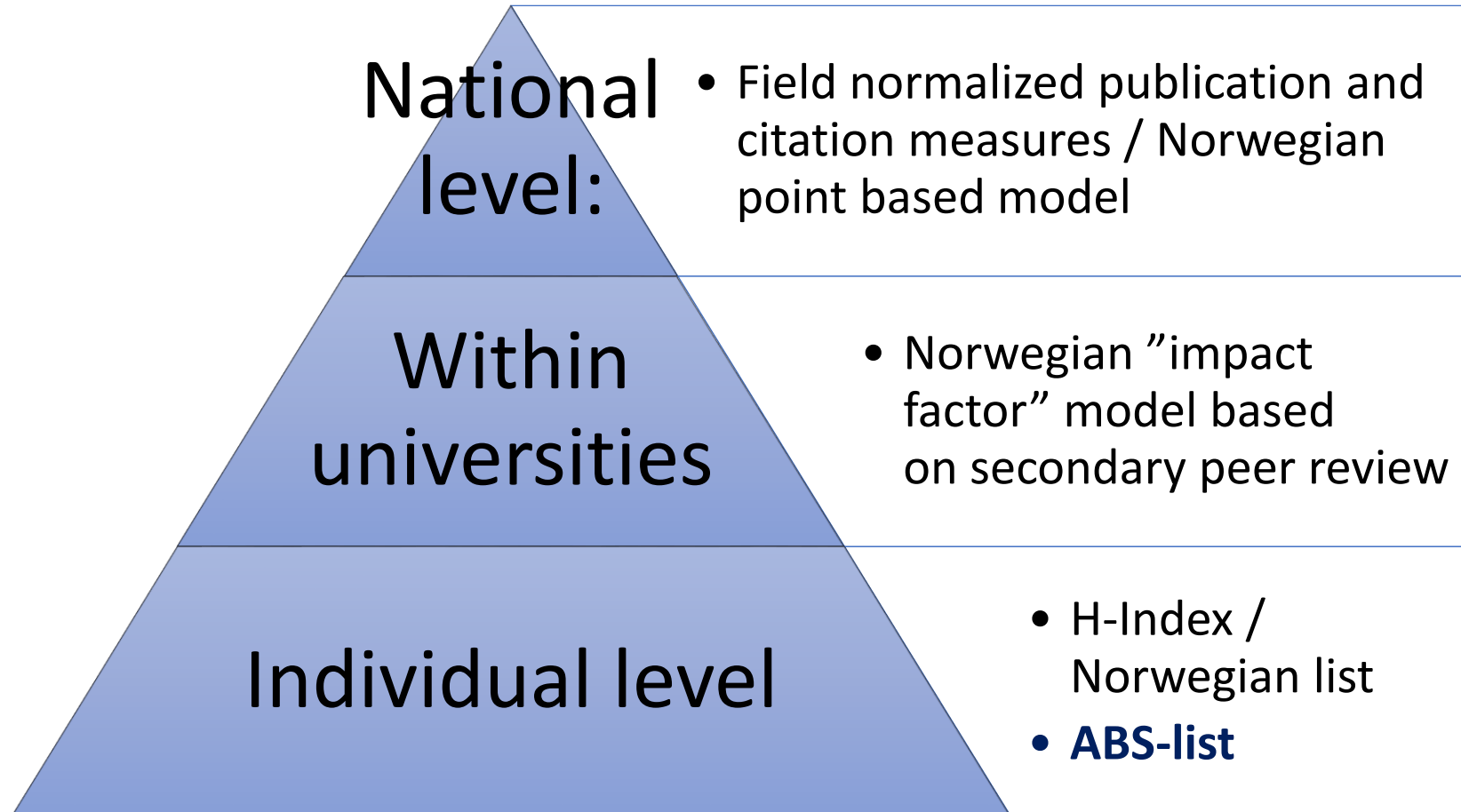
1. The **normative system** and the **citation debate**
 - The classic debate: Do citations indicate **quality** of research?
2. Contrast: The '**performative** perspective' on citations in practice
 - What research **work** do citations do?
 - The citation viewed as an outcome of active achievement or "**performance**"
 - The **reflexive actors** (researchers are active).
3. **Performance based funding/evaluation**
 - At **three levels** in the academic system
 - i. National,
 - ii. within universities,
 - iii. at the individual level.
4. More **meaningful** suggestion: '**Institute Impact Assessment**'
 - Instead of rankings, focuses on relationships research units

Why allocate resources based on indicator models?

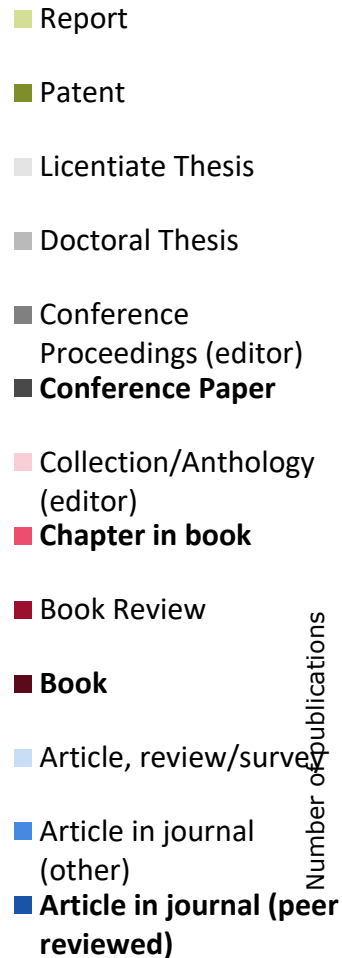
- Research policy needs tools to allocate funds without steering research **directly**.
 - *Though, there is also a tradition of directly funding sector research (not treated here).*
- Evaluation based on notions of "**quality**"
- Based on the Mertonian **CUDOS** norms
- Prerequisites:
 - "**objective** measure"
 - "**unobtrusive** measures"
 - Quantitative models are (quite) easy to **operationalize**.

Communalism
Universalism
Disinterestedness
Organized Scepticism

Performance based research allocation models at 3 levels



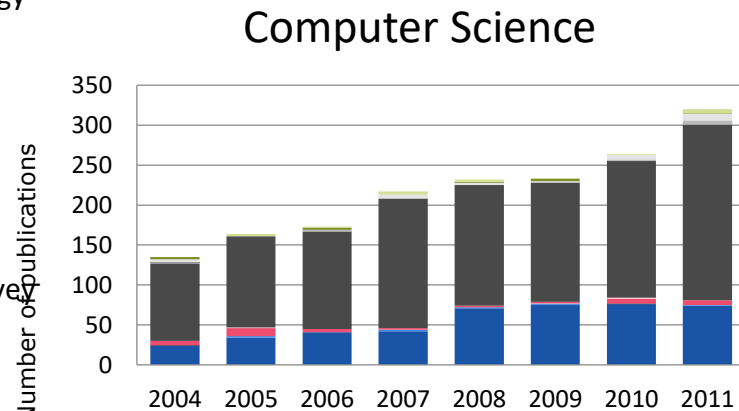
Publication output



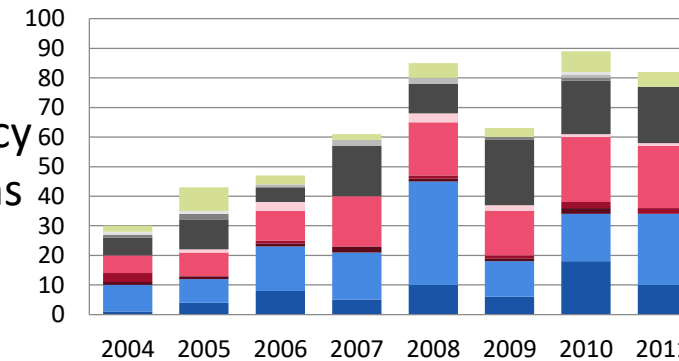
Publications in DiVA 2004-2011

Three different departments

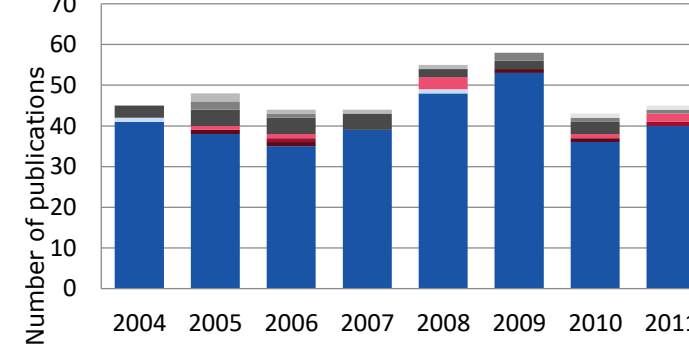
- Different publication frequency
- Different publication traditions



Humanities



Natural Science



Downside of the performative idiom

Google 'curriculum vitae AND h-index'

Allt Bilder Kartor Nyheter Shopping Fler Inställningar Verktyg

Ungefär 309 000 resultat (0,58 sekunder)

Tips: Sök efter enbart svenska resultat. Du kan ange önskat språk för sökningarna i Inställningar

job search - Should I put my h-index on my CV? - Academia Stack ...
<https://academia.stackexchange.com/.../should-i-put-my-h-inde...>
10 mars 2014 - I have read only few dozens of CV of PhD, but none of them really put down their h-index. Probably, a better way is to highlight the most ...

[PDF] Highlighting Your Track Record: Using Metrics In Your CV
<https://www.ucd.ie/t4cms/Guide4.pdf>
h-index. The h index is based on the highest number of papers included that have had at least the same number of citations. Source: Wikipedia. A scientist has.

[PDF] Curriculum Vitae (short overview) Patrick COUVREUR-Short CV H ...
<cmab.es/images/pages/organisation/sab/couvreur.pdf>
Patrick COUVREUR-Short CV H index: 81 and over 26,000 citations. Carreer. 1972 : Pharmacist, Université Catholique de Louvain (UCL), Belgium. 1975 : PhD ...

[PDF] Curriculum Vitae: George Em Karniadakis, Professor, (h-index: 52 ...
https://www.tuc.gr/.../KAPNIAΔAKHΣ-PR_Karniadakis.pdf
4 dec. 2012 - Curriculum Vitae: George Em Karniadakis, Professor, (h-index: 52). Division of Applied Mathematics. Tel no: (401) 863-1217. Brown University.

[PDF] Curriculum Vitae - DTU
<web-files.ait.dtu.dk/.../cv%20morten%20bache%20-%20summa...>
4 sep. 2017 - o h-index: h papers cited over h times. m-index: h-index/years of scientific activity o 100
ISI indexed publications: 61 journal papers, ...

[PDF] Curriculum Vitae: George Em Karniadakis, Professor, (h-index: 77 ...
https://www.brown.edu/research/.../Karniadakis_2017.pdf
23 jan. 2017 - Curriculum Vitae: George Em Karniadakis, Professor, (h-index: 77; citations: > 31, 000). Division of Applied Mathematics, Brown University, ...

[PDF] Citations for refereed papers: 17481 (h-index: 60) - INAF – Brera
<www.brera.inaf.it/utenti/campana/cv.pdf>
12 sep. 2016 - Curriculum Vitae Dr. Sergio Campana. September 2016. Page 1. INAF – OA Brera. Via E. Bianchi 46. I-23807, Merate (LC), Italy. Tel. +39 02 ...

'Gaming the system'

Techniques

- self (colleague) citing of references
- editor coercion
- citation cartels

Research policy advice:

Division of Analysis and Evaluation, GU In response to university rankings:

- *"another way of advancing on the list would be to appoint highly cited researchers, since they 'bring with them' their earlier citations..."*

False!

- "publish review articles"
- "methodological papers are more well cited than "programmatic papers"

Not adhering to DORA:

Gift authorships: only admitted when research is under scrutiny:

– "Oh, *that* paper, no my name was only added after the research was done – no responsibility..."

Post doc position at ETH Zürich:

"Applicant needs at least one authorship in a high impact (JIF >10 e.g. *Nature*) journal"



Source: <https://wonderopolis.org/wonder/do-ostriches-really-bury-their-heads-in-the-sand/>

'Institute Impact Assessment'

OBJECTIVES

- Discover the institutes and research groups that are using your work.
- Find the researchers from around the world that are citing you.
- Explore the journals where your work is being cited.
- Discover the main keywords used.
- Retrieve the highest cited articles that reference your work.

PILOT STUDY:

Dept. of Marketing and Management at SDU

Time Span: 2012-2017

*Database is **PURE:***

- 448 registered publications
- 352 were peer-reviewed
- 26 non-peer-reviewed
- 70 without a status

Research Units:

- Consumption, Culture and Commerce
- Strategic Organisation Design
- Centre for Integrative Innovation Management
- Management of People
- International Business & Entrepreneurship

PURE output:

Filter content

Organisational unit

1 organisational units selected.

117 underlying organisational unit(s) included

Type

With selected classifications (8)

- Types of research output
 - Contribution to journal
 - Journal article
 - Comment/debate
 - Conference abstract in journal
 - Conference article
 - Editorial
 - Letter
 - Literature review
 - Review

[close...](#)

Journal > Journal > Type

With selected classifications (1)

- Types of journals
 - Series types
 - Journal

Current publication status > D...

Calendar year(s) (1 Jan 2012 – 31 Dec 2017)

Workflow > Step: Selected wor...

Value is one of

- Validated

Origin

With internal affiliation

TABLE: Research outputs Ordering: ↑ Publication year [Preview](#)

Groupings	Columns															
<p>LIJID </p> <p>Click + to add custom columns</p>	<table border="1"> <thead> <tr> <th>Title</th> <th>Type</th> <th>Issue</th> <th>Publication date</th> <th>...</th> </tr> </thead> <tbody> <tr> <td>Management and HR</td> <td>Peer-reviewed</td> <td>Vol. 1</td> <td>2012</td> <td>...</td> </tr> <tr> <td>Management and HR</td> <td>Peer-reviewed</td> <td>Vol. 1</td> <td>2012</td> <td>...</td> </tr> </tbody> </table> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 15%;"> <p>ID</p> <p>Click + to change default output</p> </div> <div style="width: 15%;"> <p>Managing organisational unit</p> <p>Click + to change default output</p> </div> <div style="width: 15%;"> <p>Journal > Journal</p> <p>Publisher: x</p> </div> <div style="width: 15%;"> <p>Journal > Journal</p> <p>Click + to change default output</p> </div> <div style="width: 15%;"> <p>Journal > ISSN > ISSN</p> <p>Click + to change default output</p> </div> <div style="width: 15%;"> <p>Peer-reviewed</p> </div> <div style="width: 15%;"> <p>Electronic version(s) of this work > DOI (Digital Object Identifier)</p> <p>Click + to change default output</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 15%;"> <p>Number of authors</p> </div> <div style="width: 15%;"> <p>Number of internal authors</p> </div> <div style="width: 15%;"> <p>Number of external authors</p> </div> <div style="width: 15%;"> <p>Publication category</p> </div> <div style="width: 15%;"> <p>Type</p> </div> <div style="width: 15%;"> <p>Source</p> <p>Click + to change default output</p> </div> <div style="width: 15%;"> <p>Source-ID</p> <p>Click + to change default output</p> </div> <div style="width: 15%;"> <p>Additional source IDs > Source</p> <p>Click + to change default output</p> </div> </div> <div style="display: flex; justify-content: center; margin-top: 10px;"> <div style="width: 30%;"> <p>Additional source IDs > Source-ID</p> <p>Click + to change default output</p> </div> </div>	Title	Type	Issue	Publication date	...	Management and HR	Peer-reviewed	Vol. 1	2012	...	Management and HR	Peer-reviewed	Vol. 1	2012	...
Title	Type	Issue	Publication date	...												
Management and HR	Peer-reviewed	Vol. 1	2012	...												
Management and HR	Peer-reviewed	Vol. 1	2012	...												

PURE: create Excel report

Grab DOI's, make a search script in WoS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1	Contributors > Person > Organisations > O-T	L	U	V	W	X	Y	Electronic version(s) of t	N	N	P	T	S	S	Additional sou	Additional sou	e IDs
52966	Department of Marketing & Management	304829629	Wo	144	Pe				4	2	Res	Contribution	Scopus		84887880995		
52967	Department of Marketing & Management	517116785	Tra	1903-7:					6	1	Con	Contribution to journal - Journal article					
52968	Department of Marketing & Management	619124253	Inte	194	Pe	10.4018/IJSKD.2016100104			4	1	Res	Con	RIS 461 Scopus	85012260270			
52969	Department of Marketing & Management	038102719	Jou	224	Pe				5	1	Res	Contribution to journal - Journal article					
52970	Department of Marketing & Management	066102719	Jou	106	Pe	10.1080/1062726X.2013.795865			2	1	Res	Contribution	Scopus	84894814798			
52971	Department of Marketing & Management	74b115107	Mai	089	Pe	10.1177/0893318915601161			2	1	Res	Contribution	Scopus	84954427747			
52972	Department of Marketing & Management	080122954	Jou	093	Pe	10.1007/s00191-016-0462-8			3	1	Res	Contribution	Scopus	84990855043			
52973	Department of Marketing & Management	f9b102646	Jou	157	Pe	10.1007/s10843-014-0133-5			1	1	Res	Contribution	Scopus	85027921936			
52974	Department of Marketing & Management	851121040	Inn	181	Pe	10.21511/im.12(2).2016.01			2	2	Res	Contribution to journal - Journal article					

DO=(	10.4018/IJSKD.2016100104	) OR
DO=(	10.1080/1062726X.2013.795865	) OR
DO=(	10.1177/0893318915601161	) OR
DO=(	10.1007/s00191-016-0462-8	) OR
DO=(	10.1007/s10843-014-0133-5	) OR
DO=(	10.21511/im.12(2).2016.01	) OR
DO=(	10.1177/1470593113500384	) OR
DO=(	10.1177/2051570714540559	) OR
DO=(	10.1177/1470593115572669	) OR
DO=(	10.1177/0170840615580012	) OR
DO=(	10.1177/0767370114527677	) OR
DO=(	10.1080/0267257X.2014.925958	) OR
DO=(	10.1007/s10588-016-9214-4	) OR
DO=(	10.1177/1470593114545424	) OR
DO=(	10.1016/j.jbusres.2016.11.014)

Filtering - Priorities for data selection:

- With a DOI: 252
- Searchable: 252 publications
- Identified in **WoS: 170** publications (all publications are not covered in WoS)
- 1332 citing articles
- **1195** citing articles excluding self-citations


Who's using our work?

- 1. Sensemaking in Organizations: Taking Stock and Moving Forward**

By: Maitlis, Sally; Christianson, Marlys K.
ACADEMY OF MANAGEMENT ANNALS Volume: 8 Issue: 1 Pages: 57-125 Published: 2014

[LINK](#) [Full Text from Publisher](#) [View Abstract](#) ▼

Times Cited: 193
(from Web of Science Core Collection)


 **Highly Cited Paper**

Usage Count ▼
- 2. Progress on information and communication technologies in hospitality and tourism**

By: Law, Rob; Buhalis, Dimitrios; Cobanoglu, Cihan
INTERNATIONAL JOURNAL OF CONTEMPORARY HOSPITALITY MANAGEMENT Volume: 26 Issue: 5 Pages: 727-750 Published: 2014

[LINK](#) [Full Text from Publisher](#) [View Abstract](#) ▼

Times Cited: 117
(from Web of Science Core Collection)


 **Highly Cited Paper**

Usage Count ▼
- 3. Systematic review on what works, what does not work and why of implementation of mobile health (mHealth) projects in Africa**

By: Aranda-Jan, Clara B.; Mohutsiwa-Dibe, Neo; Loukanova, Svetla
BMC PUBLIC HEALTH Volume: 14 Article Number: 188 Published: FEB 21 2014

[LINK](#) [Free Full Text from Publisher](#) [View Abstract](#) ▼

Times Cited: 112
(from Web of Science Core Collection)


 **Highly Cited Paper**

Usage Count ▼
- 4. ORGANIZING THOUGHTS AND CONNECTING BRAINS: MATERIAL PRACTICES AND THE TRANSITION FROM INDIVIDUAL TO GROUP-LEVEL PROSPECTIVE SENSEMAKING**

By: Stigliani, Ileana; Ravasi, Davide
ACADEMY OF MANAGEMENT JOURNAL Volume: 55 Issue: 5 Pages: 1232-1259 Published: OCT 2012

[LINK](#) [View Abstract](#) ▼

Times Cited: 108
(from Web of Science Core Collection)

 **Highly Cited Paper**

Usage Count ▼
- 5. Geometry of Meaning: Semantics Based on Conceptual Spaces**

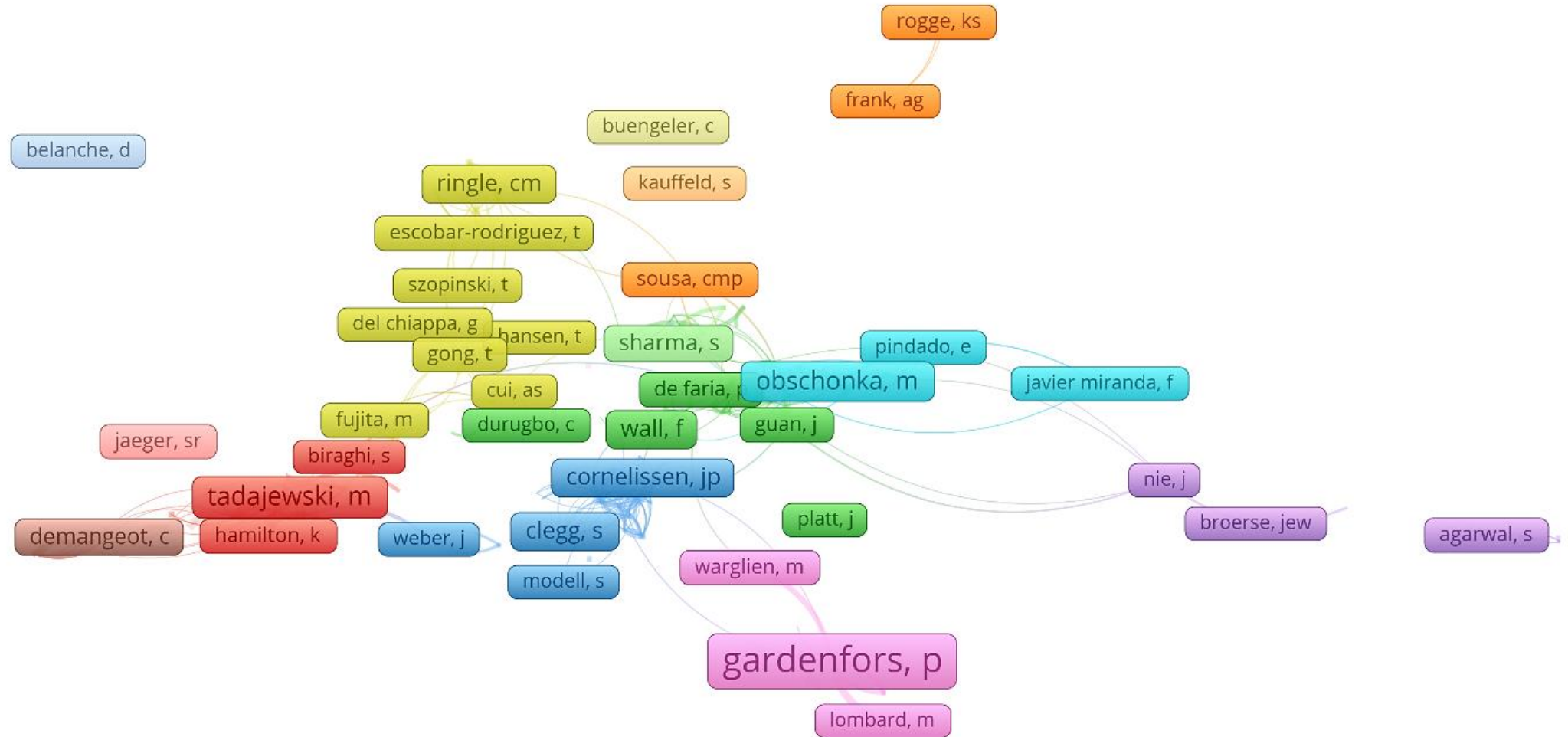
By: Gardenfors, P
GEOMETRY OF MEANING: SEMANTICS BASED ON CONCEPTUAL SPACES Pages: 1-343 Published: 2014
Publisher: MIT PRESS, FIVE CAMBRIDGE CENTER, CAMBRIDGE, MA 02142 USA

[LINK](#)

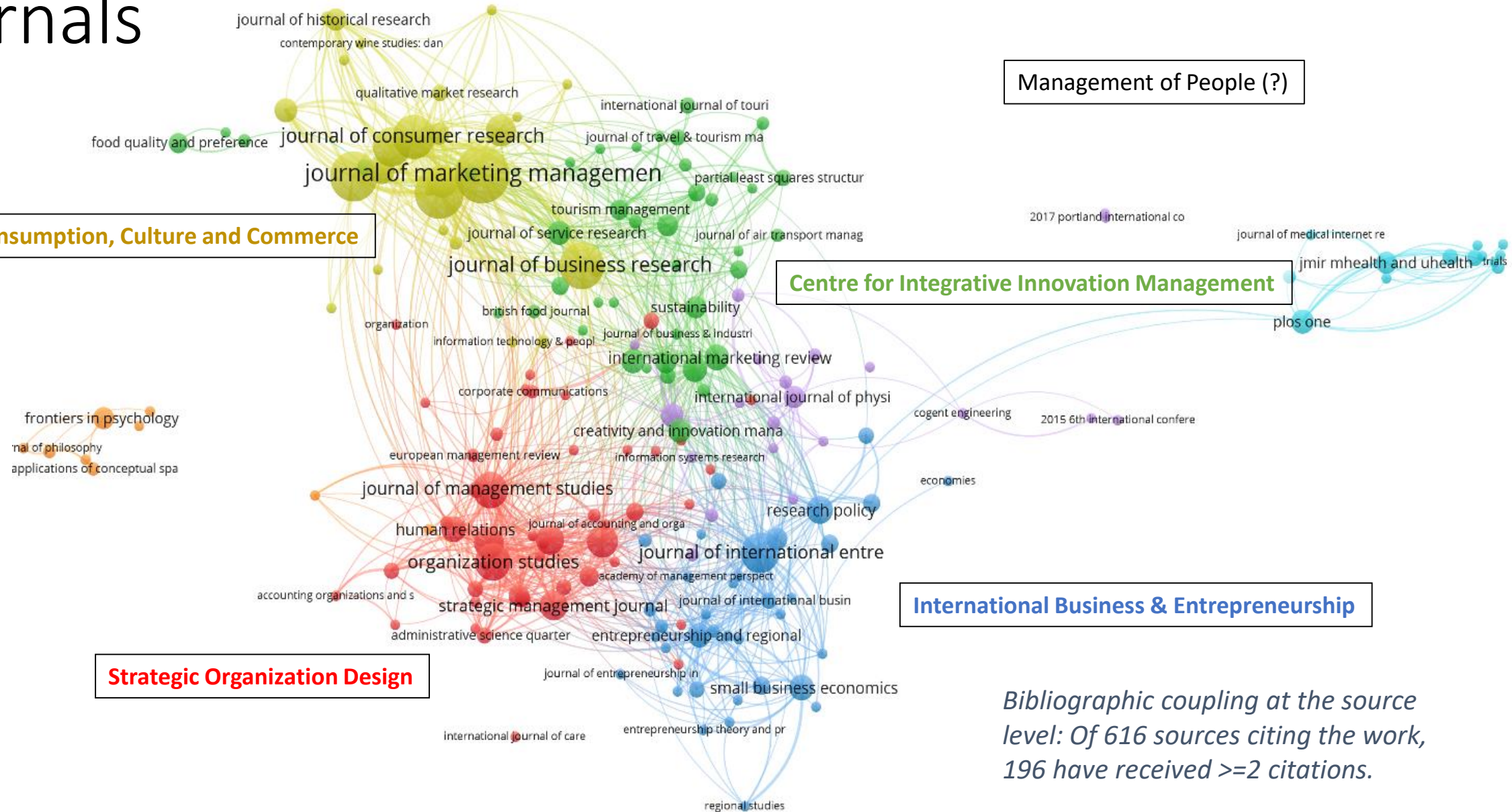
Times Cited: 104
(from Web of Science Core Collection)

Usage Count ▼

Authors



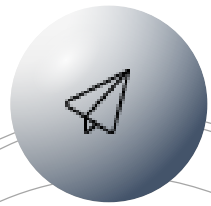
Journals



Bibliographic coupling at the source level: Of 616 sources citing the work, 196 have received ≥ 2 citations.

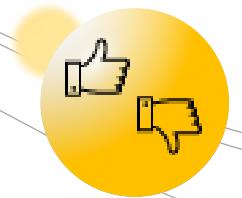
Undergoing case-study at SDU – Stepping Stones

Invitation by email



One department from each faculty at SDU is invited to participate in our case-study

Leadership decision



Department heads can decide to accept or decline our invitation by June 12th.

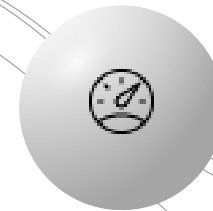
We collect publication data and create your draft Institute Impact Footprint (IIF)



Your draft institute/department impact footprint is a series of thematic maps representing the

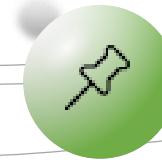
- keywords,
- journals,
- Institutions,
- and authors of all articles citing your publications.

You evaluate the IIF and give us feedback



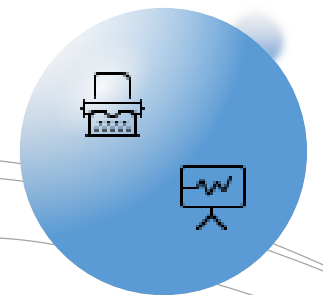
Brief review of your institute's PURE data.
Selection of the thematic map that represent the research at your institute in the best way.

Co-selection of a benchmark



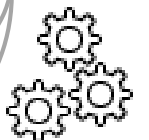
Together with you we will select a department/institute that could be a benchmark for your IIF.

We finalize your Institute Impact Footprint



Final IIF detailed report.
Presentation of the results to you, and/or your group leaders and/or the all department/institute.

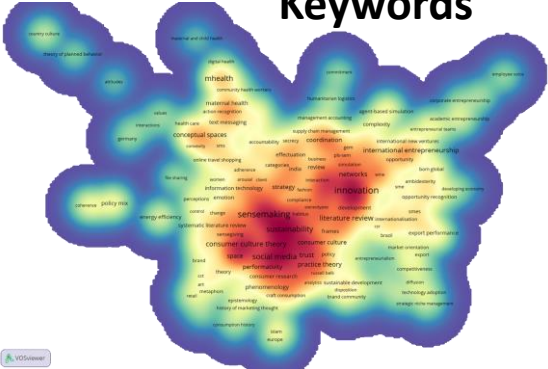
Partnering strategy
Funding opportunities identification
Branding & more...



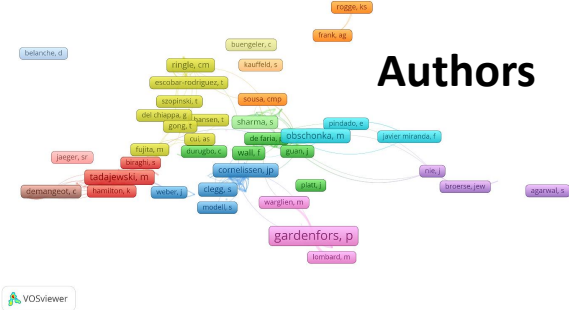
Pilot IIF: maps independant of each other

Final IIF: maps mirrored behind the most representative map, resembling a GIS

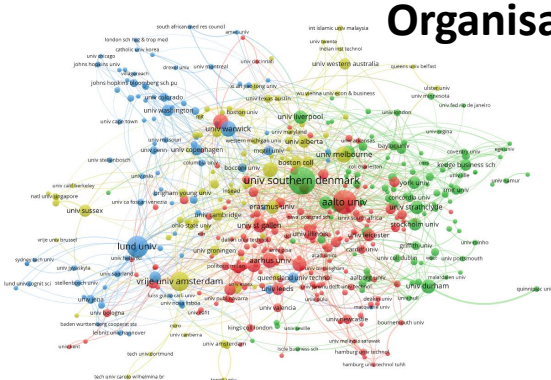
Keywords



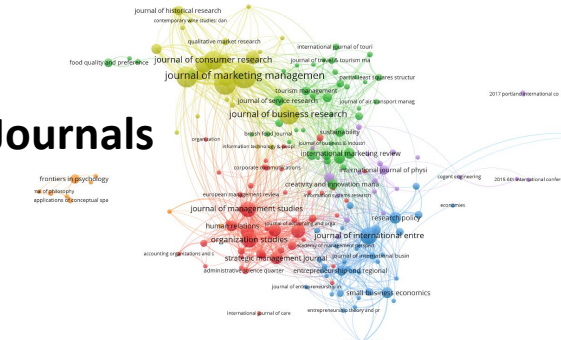
Authors



Organisation



Journals



Keywords

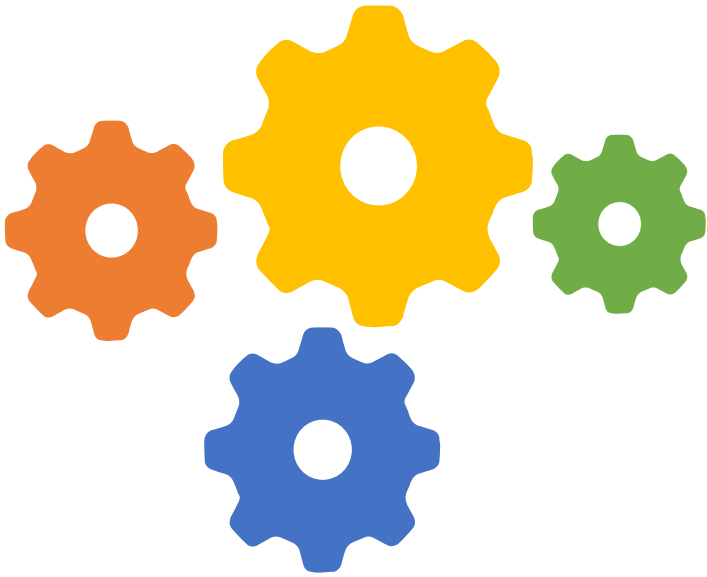
Authors

Organisation

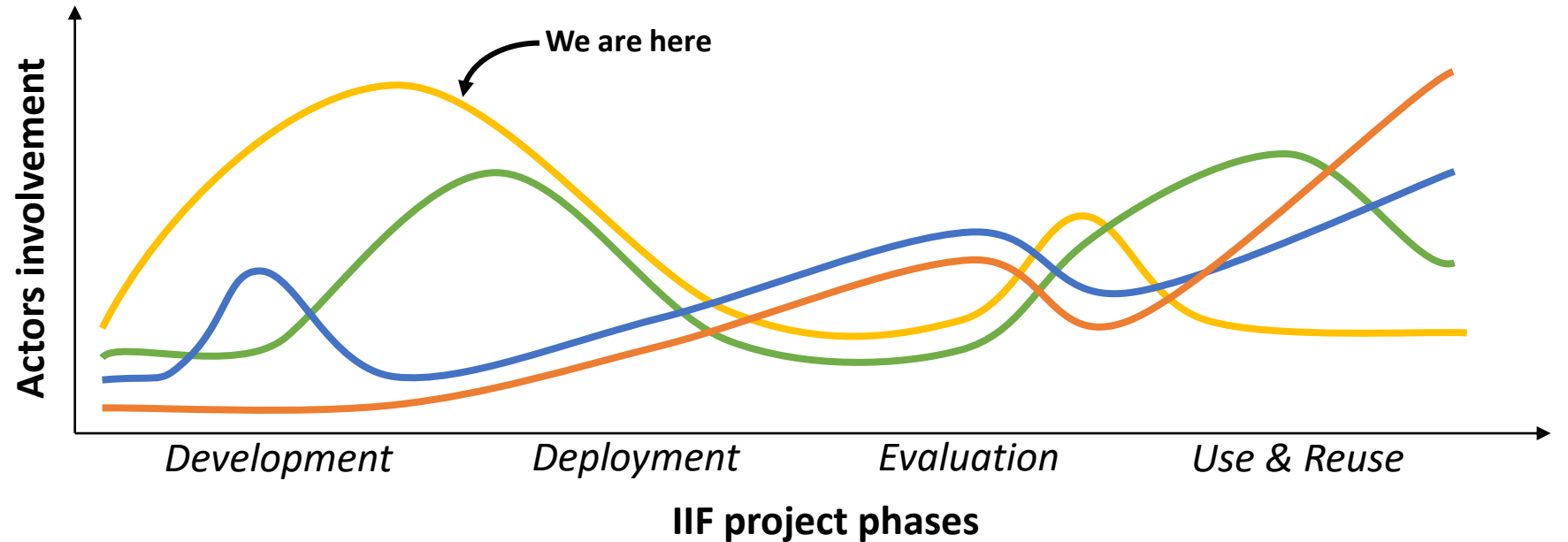
Journals



Actors involved in the co-creation of the IIF



-  **SDU Library**
-  **SDU Head of Departments**
-  **SDU Researchers**
-  **SDU Research & Innovation Office**



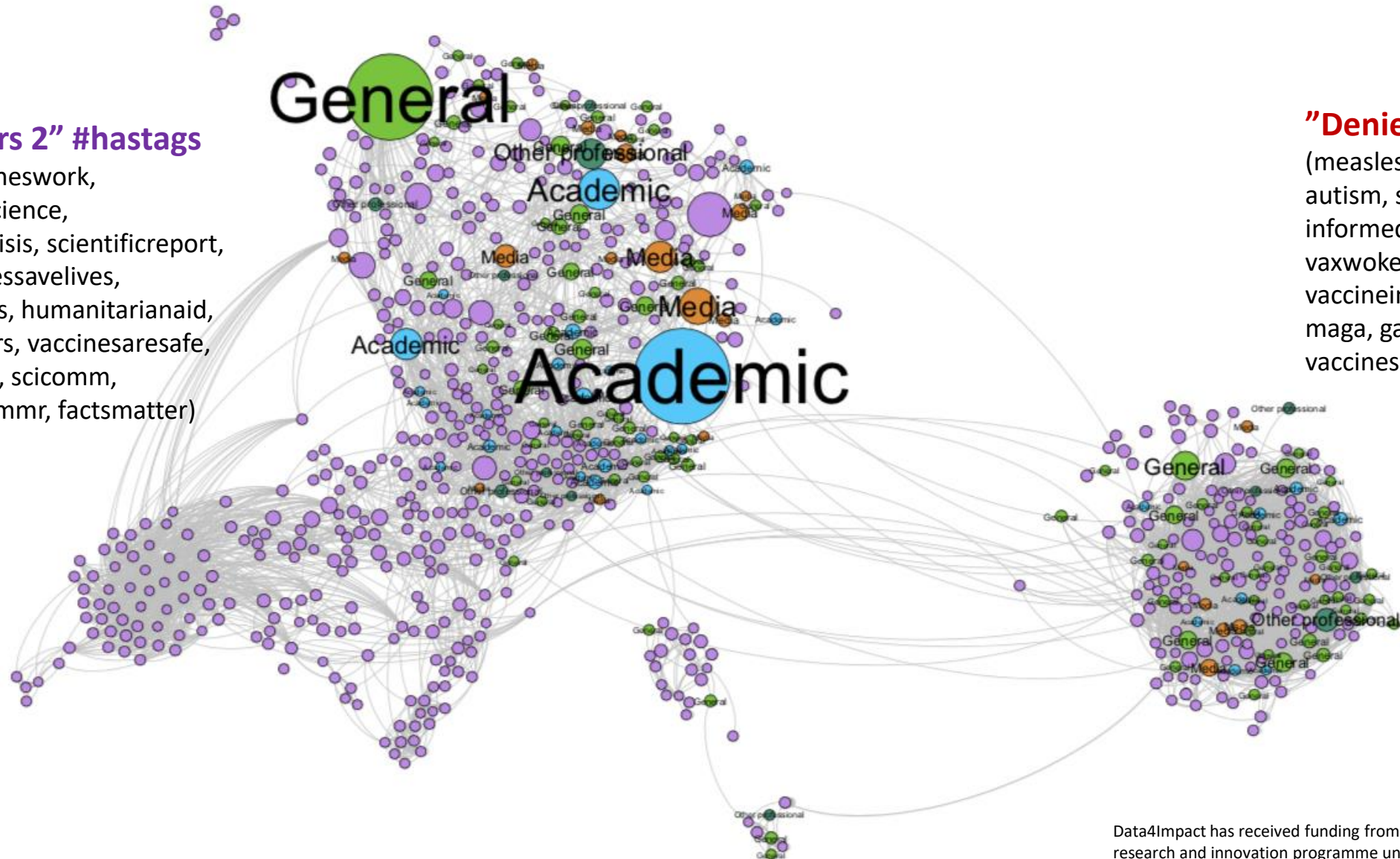
Future extensions: tracking *societal impact*

Here: twitter retweets about 'vaccination'



"Non-deniers 2" #hashtags

(measles, vaccineswork, publichealth, science, humanitarian crisis, scientificreport, antivax, vaccinesavelives, venezuela, crisis, humanitarianaid, help, antivaxxers, vaccinesaresafe, misinformation, scicomm, itrustvaccines, mmr, factsmatter)



"Deniers" #hashtags

(measles, vaxxed, mmr, autism, study, flu, hpv, informedconsent, vaxwoke, cdc, vaccineinjury, learntherisk, maga, gardasil, vaccineskill)