

Institute for Media
and Communications Management



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Academic Impact: New vs. Old



Usage-based Metrics



Bibliometrics from Peer-reviewed Journals

Current Studies



- **Altmetrics** is a very current and rapidly evolving field of research
- **Altmetrics manifesto** (Priem et al., 2010)
- **Thelwall et al. (2013)**: Comparing 11 webometric indicators with WOS citations; correlations found for Twitter, Facebook wall posts, research highlights, blogs, mainstream media and forums. Not enough evidence for Google+, LinkedIn, Pinterest, Q&A sites and Reddit. Twitter most covered.
- **Haustein et al. (2014), Mohammadi & Thelwall (2014)**: Mendeley readers a relatively good – and representative – almetrics indicator for citations later on
- **Thelwall & Kousha (2014)**: One of very few studies about ResearchGate

Topics

Subscribe



altmetrics

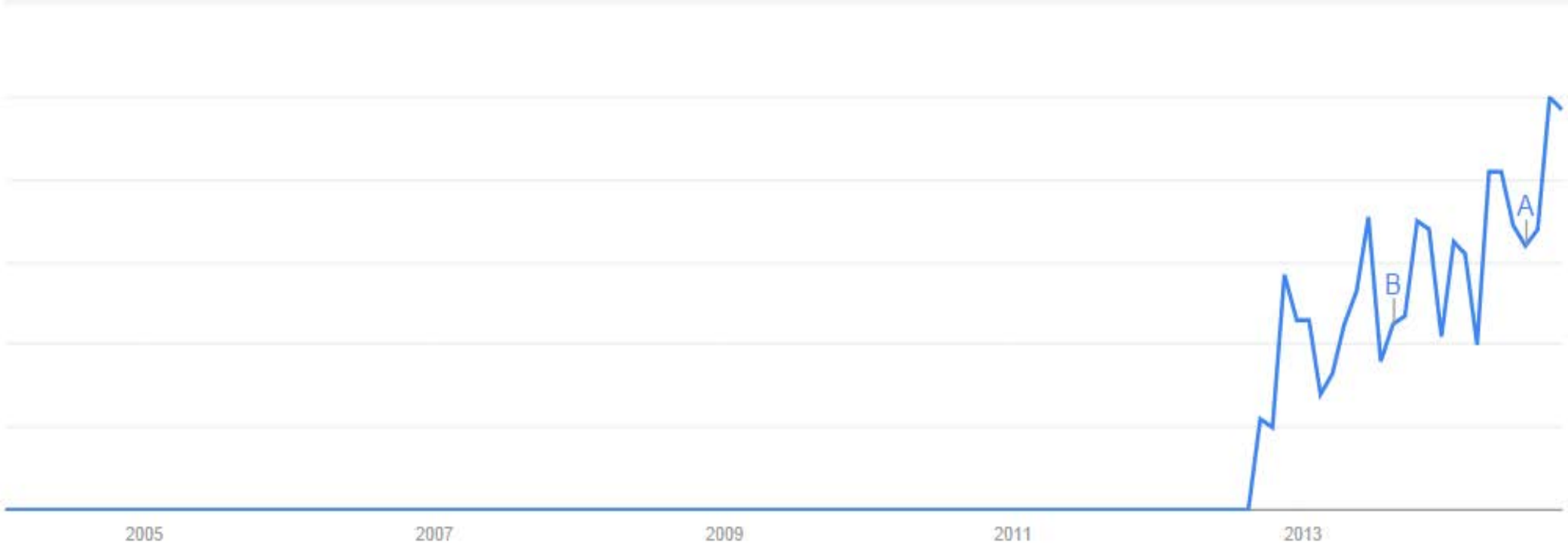
Search term

+ Add term

Interest over time ?

News headlines

Forecast ?



What about Social Capital and Relations?



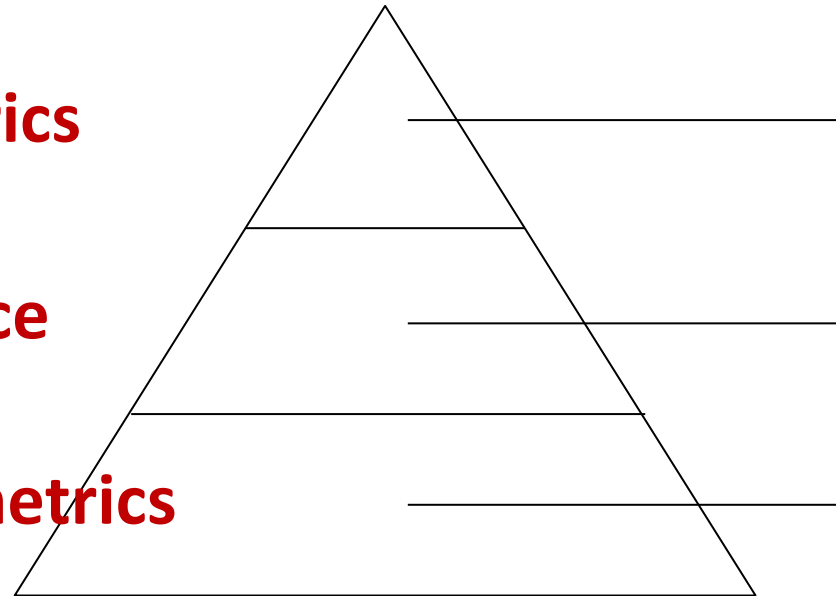
- Relations with other researchers are important resources
 - *Promotion*
 - *Publication*
 - *Invitation*
 - *Collaboration...*
 - Social capital matters
- ⇒ **Bringing in the relational aspect in impact measurement... beyond citations**

Framework of Research Project

Altmetrics

Influence

Webometrics



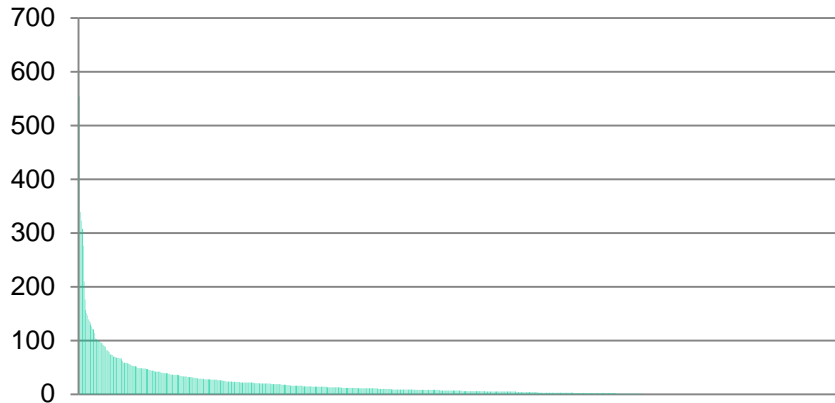
- Resonance of Publications

- Resonance of the Person

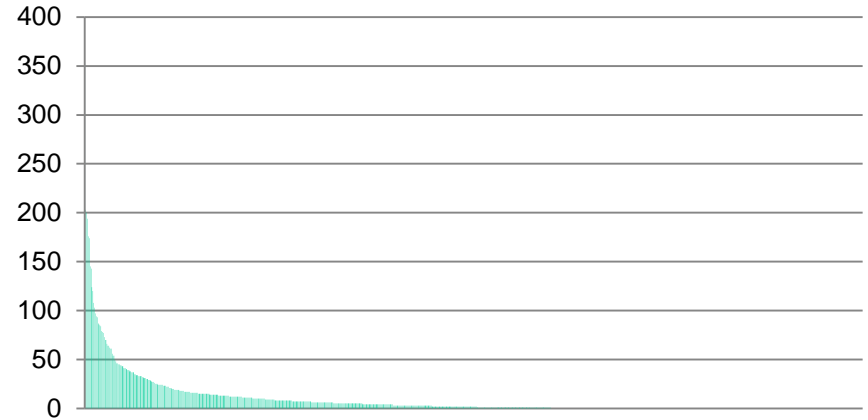
- Public Perception

1. Altmetrics

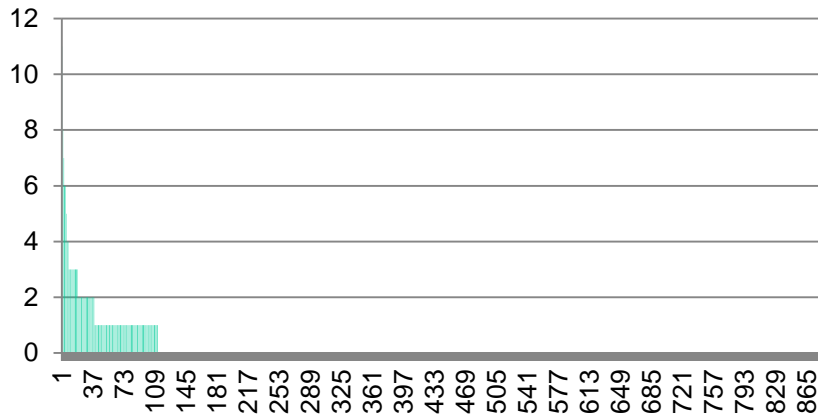
Mendeley Readers



Scopus Citations



citeulike Bookmarks



Altmetrics Champions

Mendeley Readers (& Total Index)

1. Oliver Gassmann (3531)
2. Rolf Wüstenhagen (1198)
3. Elgar Fleisch (754)



2. Influence: ResearchGate Network Metrics



Person:

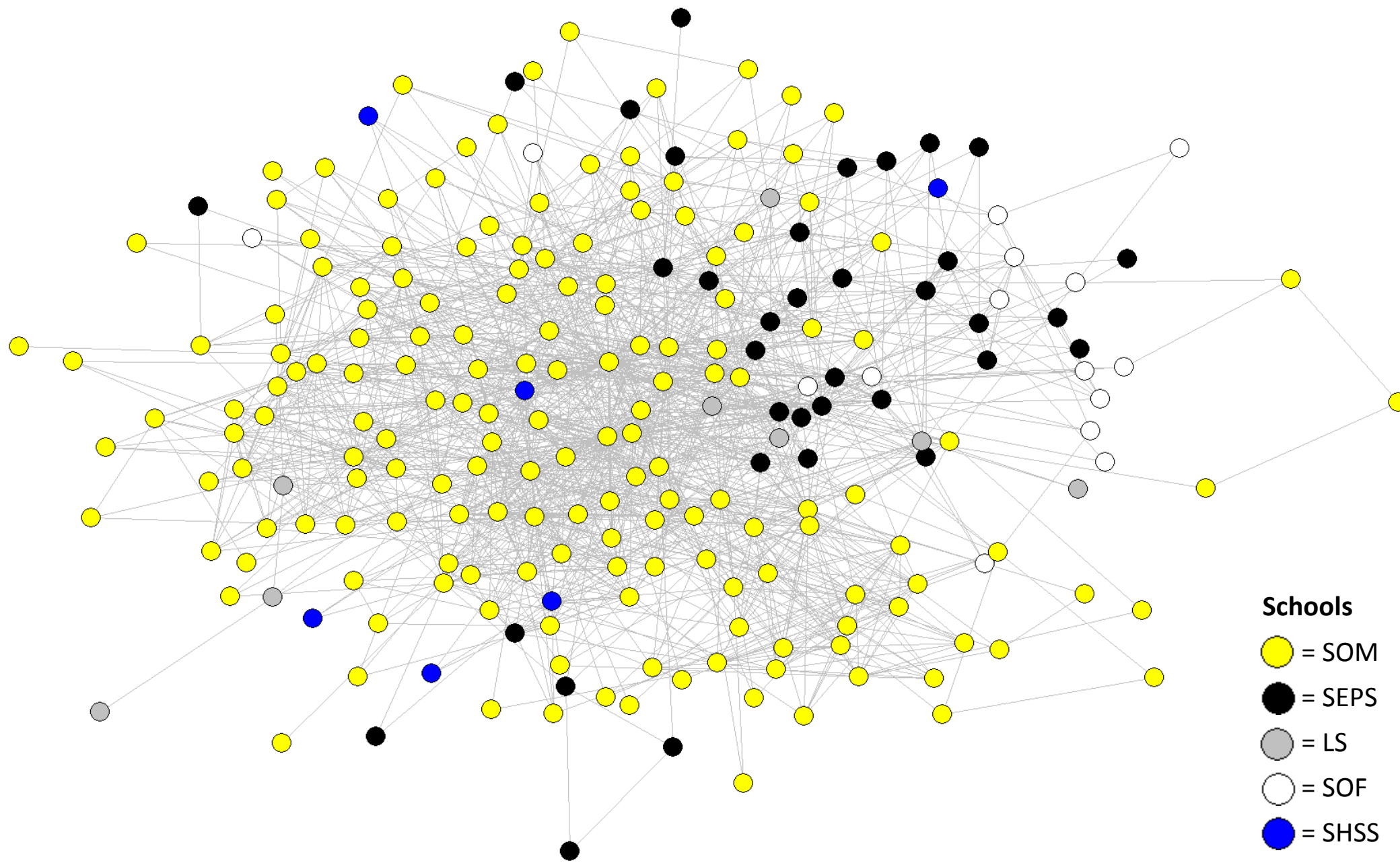
#Followers, #Followees, #Q&A,
#Profile Views, #Impact Points/
RG Score



Publications:

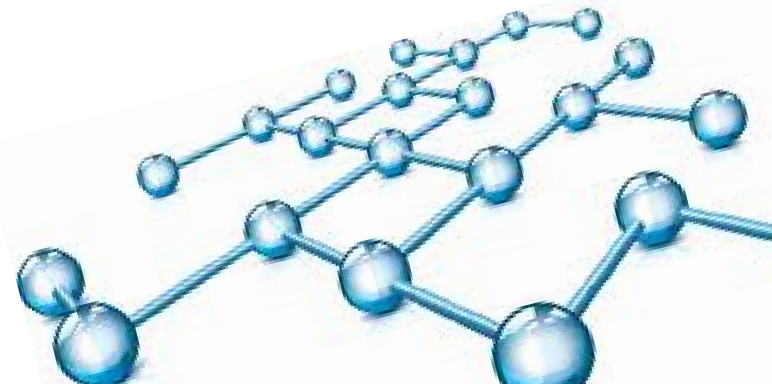
#Papers, #Uploads, #Views,
#Citations, #Requests,
#Downloads

Activity and **Network** of the
researchers, produced **Attention**,
Resonance of individual publications.



The UniSG Network: Network Statistics

- Density: Only about **3 percent** of all possible connections are realized.
- It is a relatively small community. **Average distance**= 3.12. On average, the profiles are 3 steps away from each other. The **maximum distance** (Diameter) is 9 steps.
- Internal networking most prevalent : On average, members of the UniSG have **16 followers**, 50 percent of which are UniSG colleagues. There are a couple of outliers and members without followers («Isolates»).
- High **homophily** along institutes.



Influence Measures from Social Network Analysis



- **Indegree:** Number of followers, «Prominence»
- **Betweenness:** Bridge function / Connection of different clusters, «Cooperation»
- **Closeness:** Being close to other members, «Centrality»
- **Eigenvector:** First and second order connections, «Influence»

Network Champions

Follower Overall Network (Outreach)

1. Michael Lechner
2. Oliver Gassmann
3. Erik Hofmann

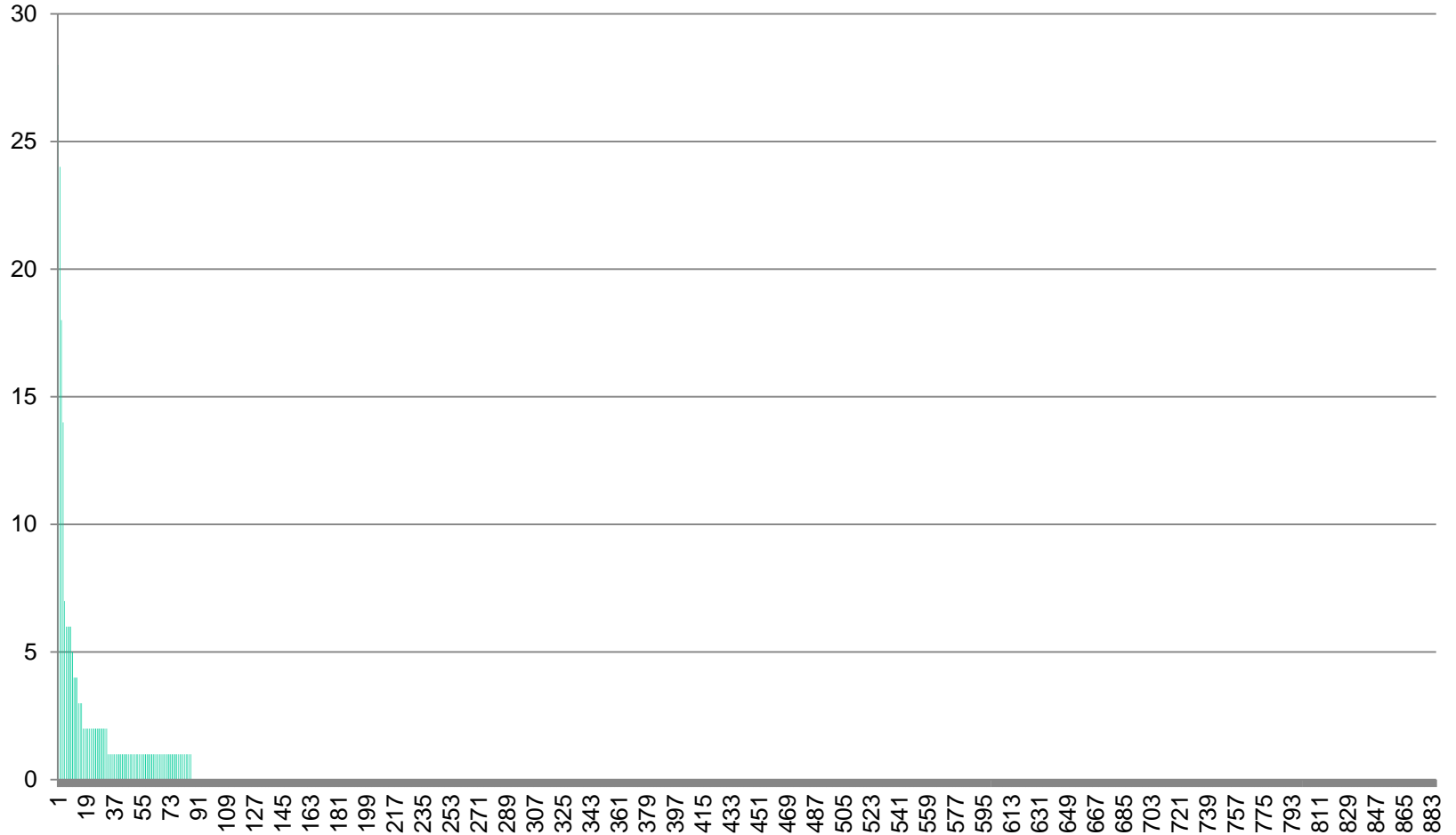


3. Webometrics

- We analyzed mentions of publications on:
 - **Wikipedia** (3 Quotes)
 - **Blogs** (6 Quotes)
 - **Facebook** (Comments on public pages with reference to 4 articles)
 - **Twitter** (227 Tweets)
 - **Delicious** (100 Bookmarks)



Distribution of Number of Tweets for Articles



Webometrics Champions

Index

1. Johannes Christian Bauer (1.00)
2. Thomas Rudolph (0.93)
3. Michael Bechtel (0.37)

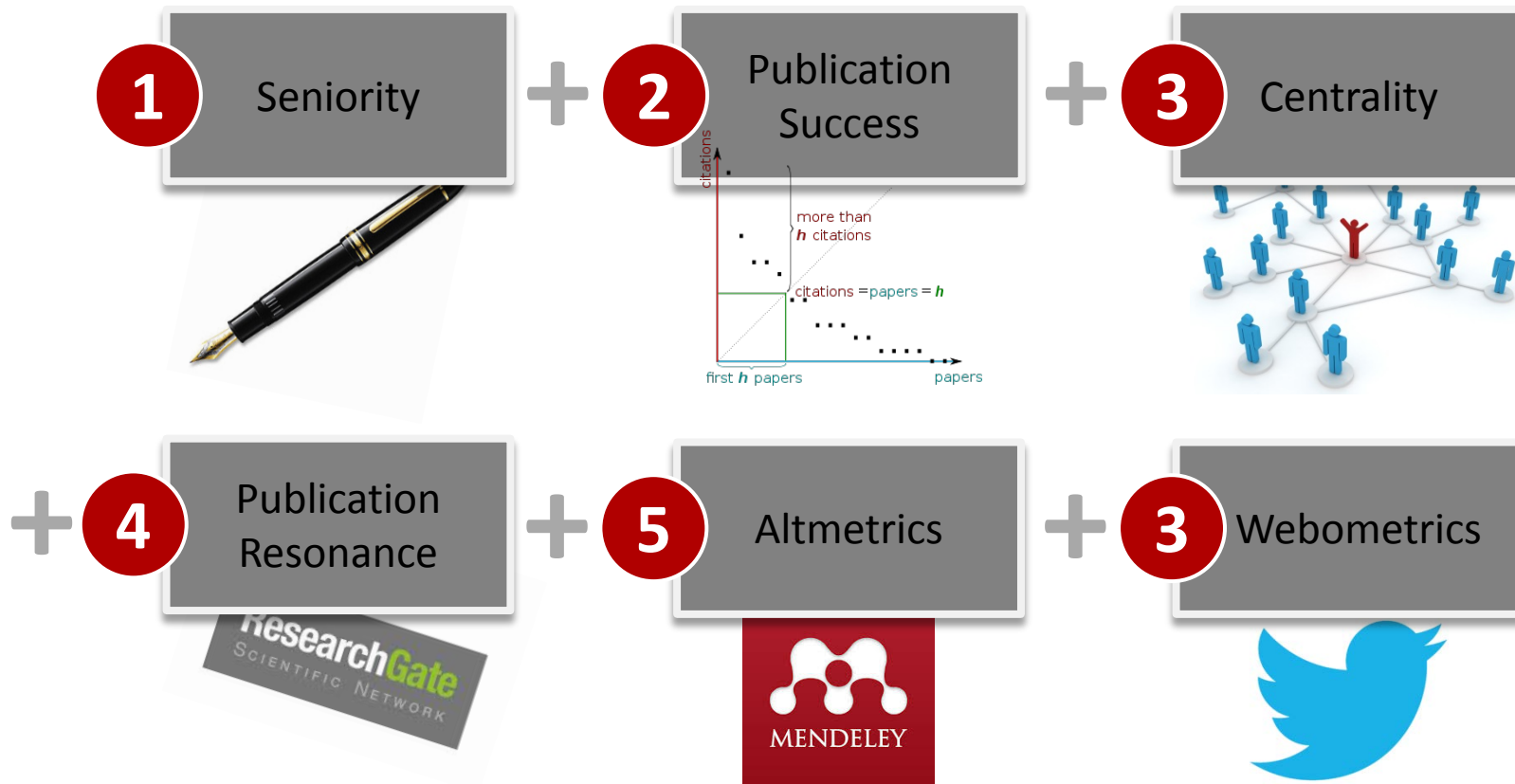


Tweets

1. Guido Cozzi (29)
2. Angelo Ranaldo (24)
3. Oliver Gassmann (22)



Correlations between Indicators



Summary

	Activity	Centrality	Publication Success (h-Index)	Publication Resonance (RG)	Seniority	Altmetrics
Centrality	✓ 0.3					
Publication Success	✓ 0.2	✓ 0.15				
Publication Resonance	✓ 0.3	✓ 0.35	✓ 0.7			
Seniority	✗	✓ 0.2	✓ 0.5	✓ 0.45		
Altmetrics	✗	✓ 0.15	✓ 0.65	✓ 0.6	✓ 0.35	
Webometrics	✗	✗	✓ 0.35	✓ 0.2	✓ 0.15	✓ 0.25

Conclusion

- **Altmetrics** have a strong correlation with traditional measures of impact. (The publication resonance on ResearchGate can be seen as a part of Altmetrics).
 - The correlation of **centrality** measures with traditional measures of scientific impact is weaker. A dynamic perspective might be necessary here.
 - Impact can barely be «forced» via communication efforts. It has to emerge from the recognition and reaction of other users.
 - **Webometrics** only have a weak correlation with traditional impact measures (in line with current bibliometric studies, e.g., Costas et al., 2014).
- More or less narrow **understandings** of scientific impact are revealed.
- Altmetrics and Webometrics allow a more **differentiated view** of individual impact.





References

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