

Webometrics: The Evolution of a Digital Social Science Research Field

Mike Thelwall
Statistical Cybermetrics Research Group
University of Wolverhampton, UK

What is Webometrics?

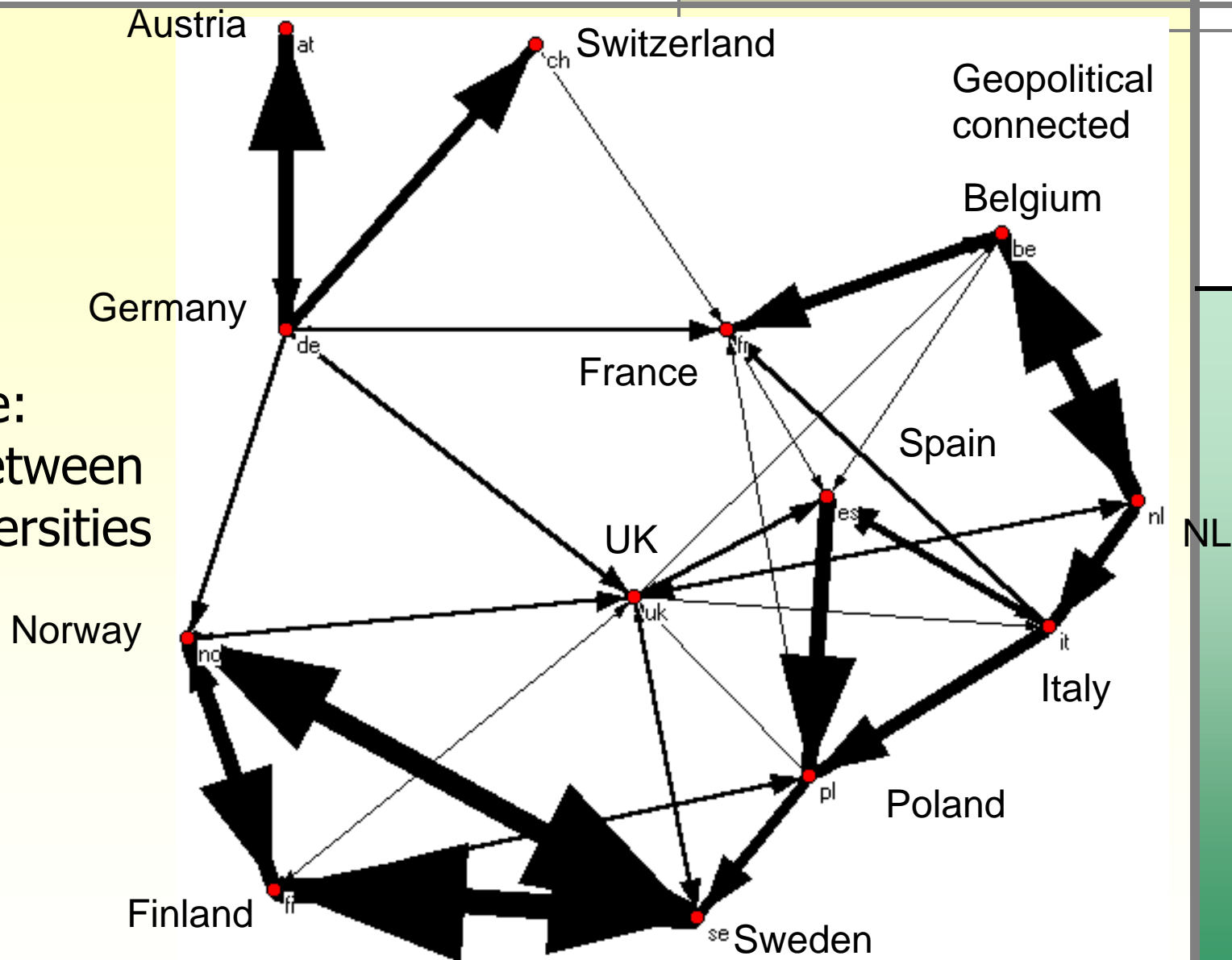
- Webometrics is concerned with gathering data on and measuring aspects of the Web
 - web sites/pages
 - Hyperlinks
 - Search engines
 - YouTube video commenter networks
 - Social network sites
 - Tweets
- ...for varied information/social science purposes

History



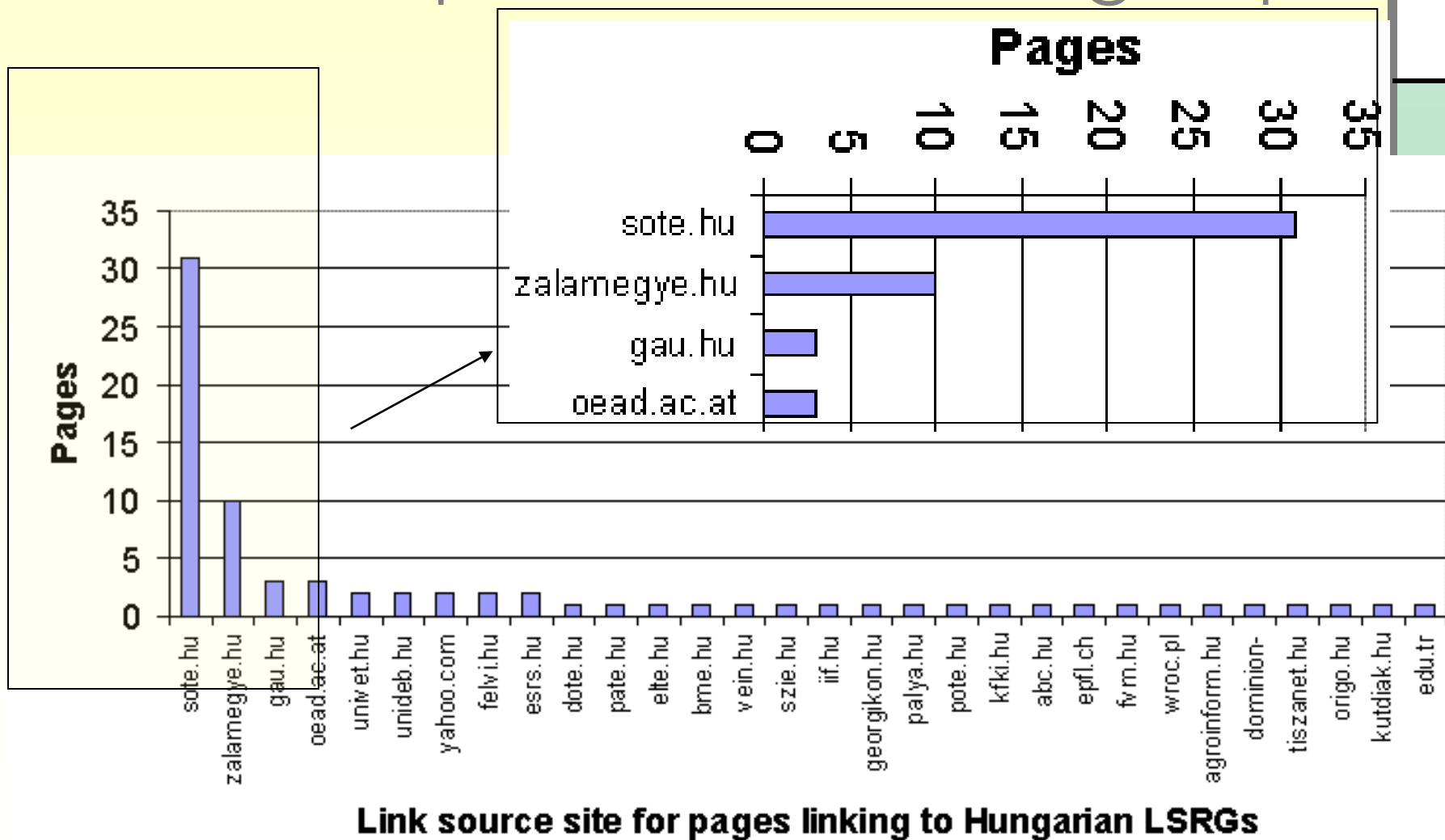
- “webometrics” coined in print by an article by Tomas Almind and Peter Ingwersen in 1997
- Used as a synonym with Cybermetrics
- But Cybermetrics includes non-Web internet measurements (Björneborn)
- Grew from attempts to exploit the power of commercial search engines for research

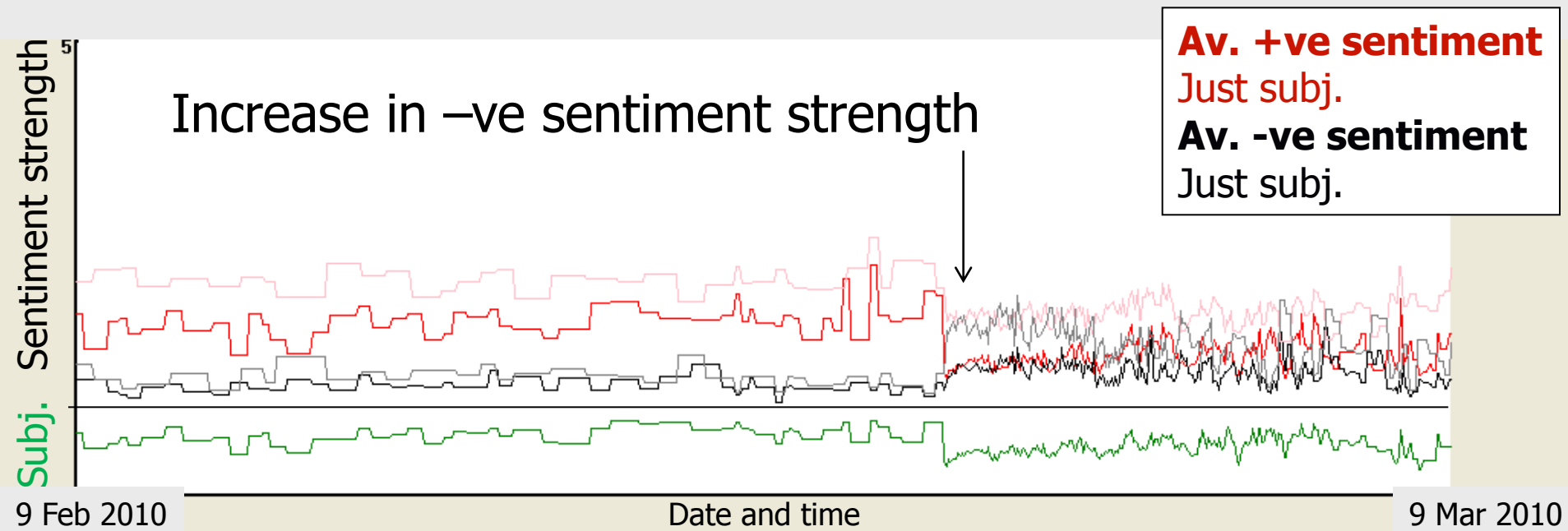
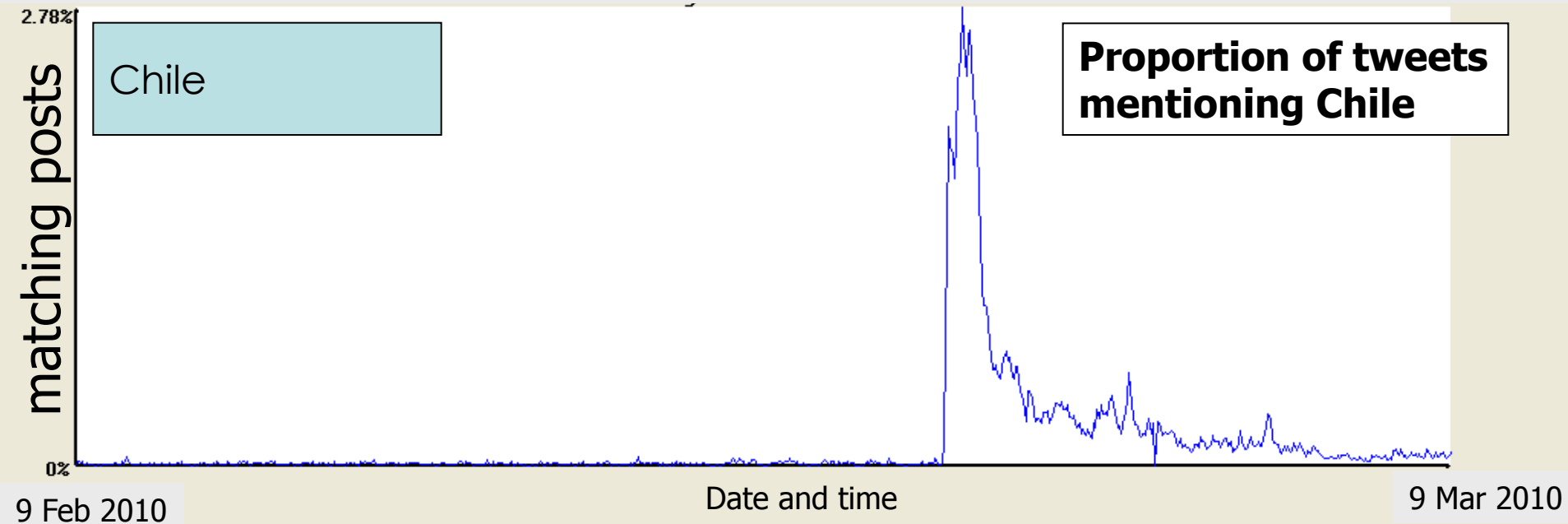
Example:
Links between
EU universities



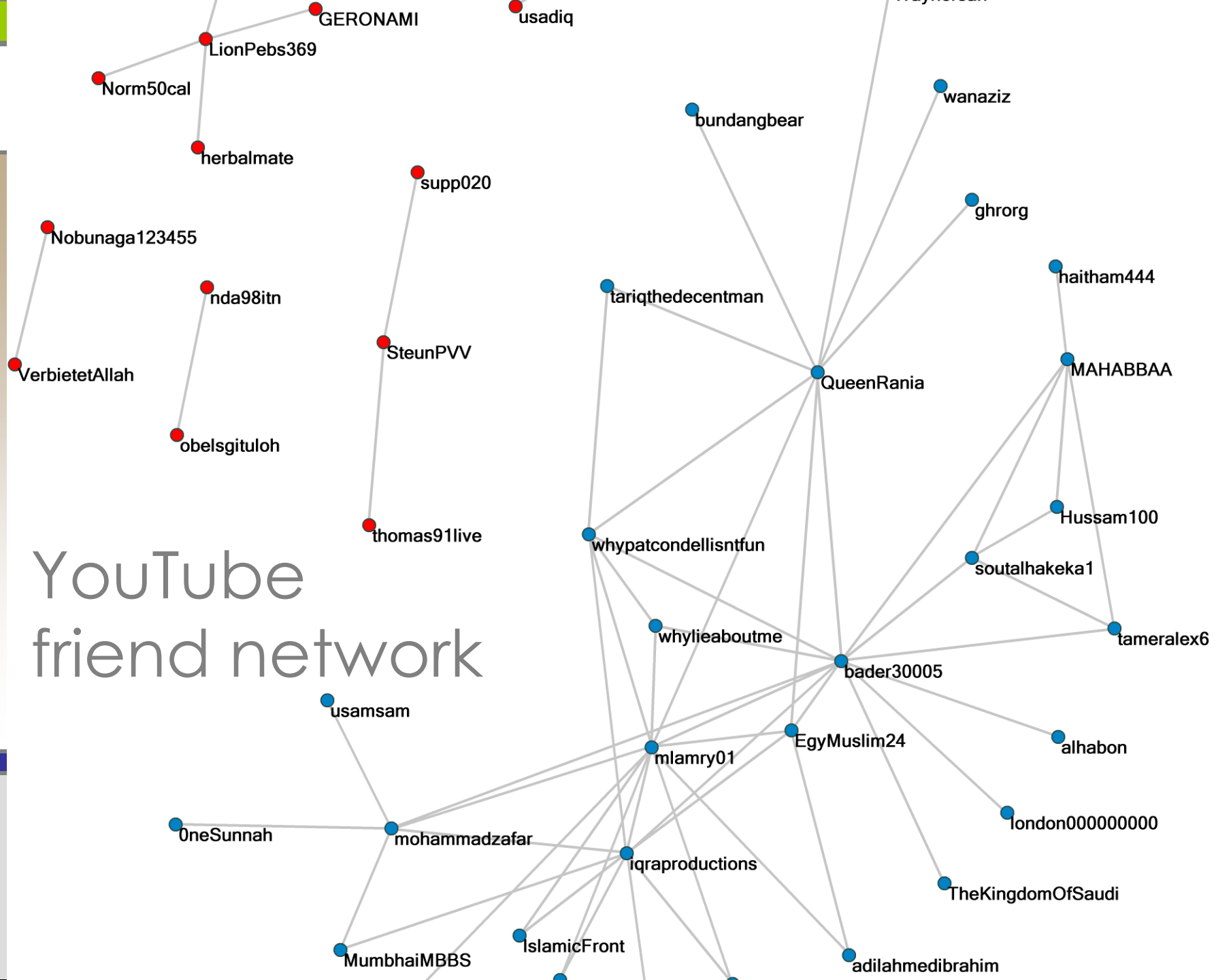
Normalised linking, smallest countries removed

Information science example: The online impact of research groups





YouTube friend network



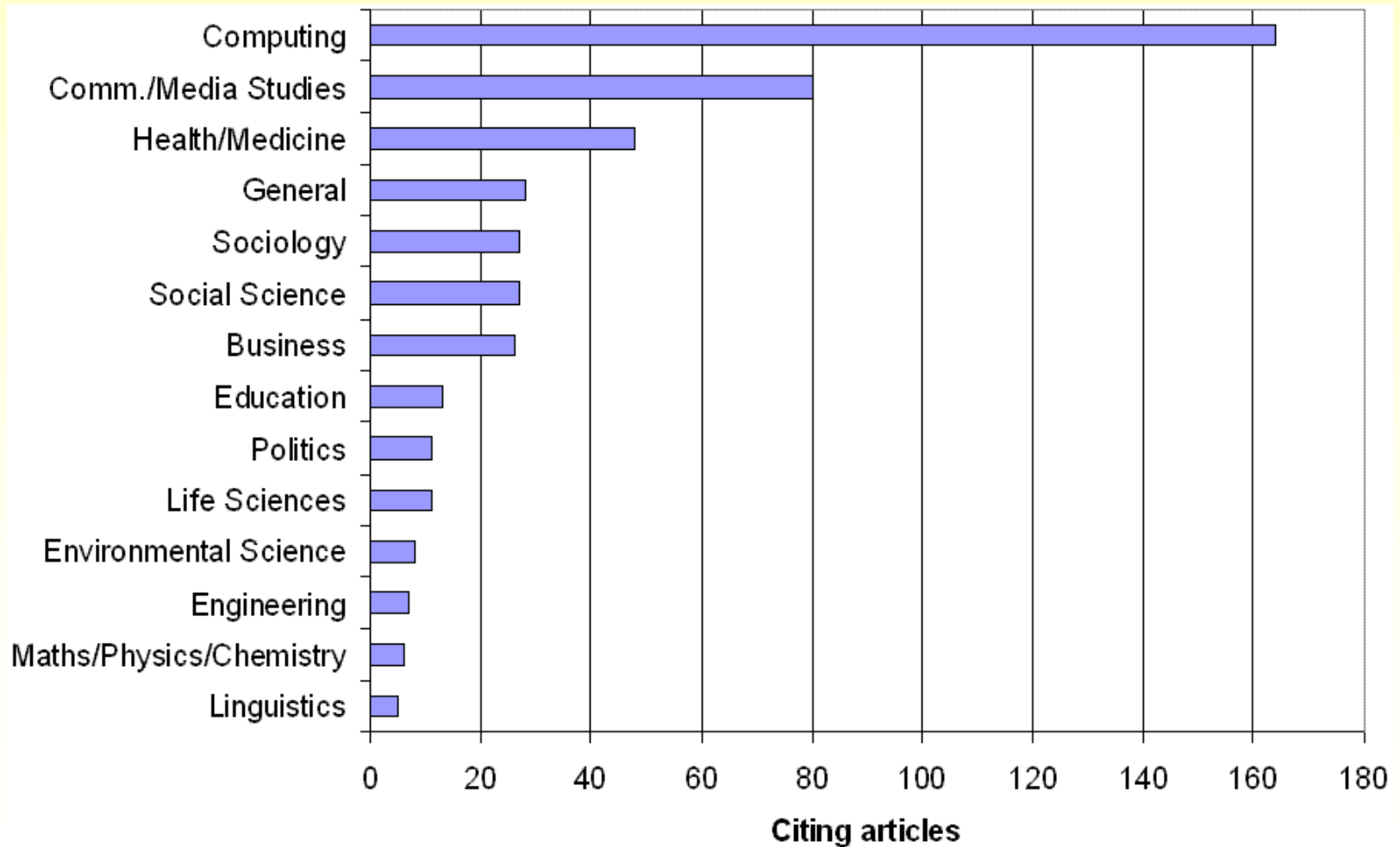
Potted History

- Research area over 15 years old
- Within information science has many practitioners and is prominent in maps of the discipline
 - Some funded and commissioned webometrics projects, particularly within EU
- Many methods aimed at a social science audience
 - Some efforts to disseminate them
- Outside of information science little uptake of its methods

Webometrics Ranking of World Universities

- World Universities' ranking on the Web (www.webometrics.info) (Aguillo, Granadino, Ortega, Prieto)
- → The most well-known webometric application

Evidence: Citations to webometric research from outside LIS



non-LIS articles citing webometrics, classified by source journal/conference

Research areas bypassing webometrics 1



- Computer science
 - Link analysis research – algorithm construction but also some scholarly communication (e.g., “Semantic web link analysis to discover social relationships in academic communities”)
- Sociology
 - Richard Rogers’ issue networks & IssueCrawler software
 - Little published in journals – humanities research?

Research areas bypassing webometrics 2



- Physics and complexity science
 - Abstract link analysis research
 - Relatively context-free
 - But not inspired by webometrics research

Conclusions

- Interest in webometrics applications but almost no intrinsic interest
- Evidence of a foothold in the EC for research communication
- A foothold in the UK for digital resource evaluation
- Some scholarly impact in related fields
- Some scholarly ignoring/irrelevance in Comp. Sci., sociology, physics