The blogosphere as a network: an empirical laboratory

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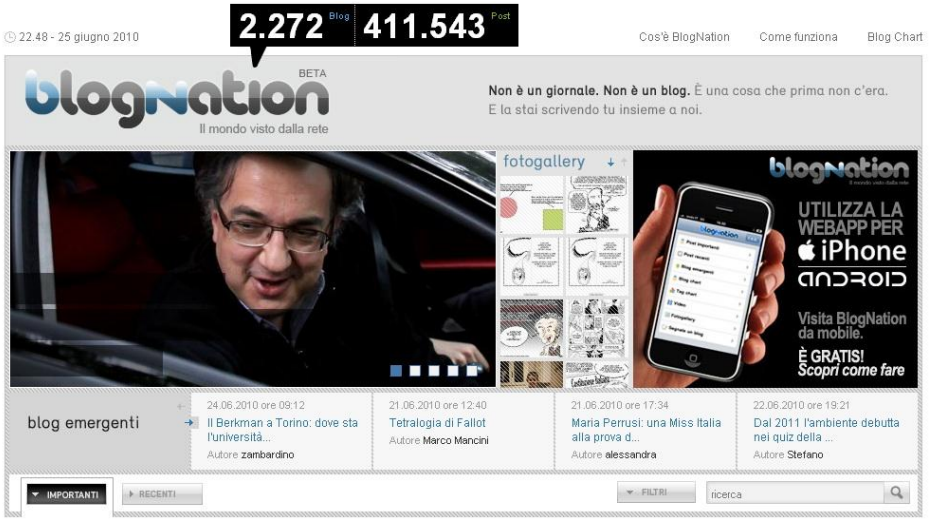
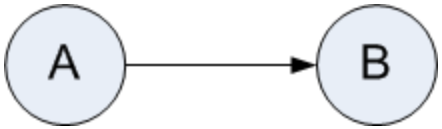
Introduction

- The dataset
  - Blognation
    - An Italian blogosphere
  - RSS feeds
  - Web crawling
- Basic statistics
  - 2,000+ authors/bloggers
  - 370,354 blog posts.
  - Topic classification:
    - News, cars, culture, entertainment, food, sports, tech



Post-Post Citation Network

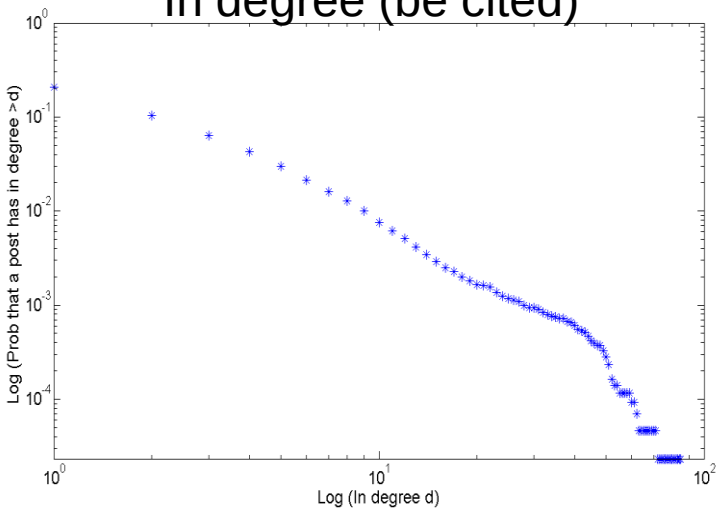
- Nodes-- blog posts
- Edges -- citations between posts
  - E.g. post A contains a link that points to post B



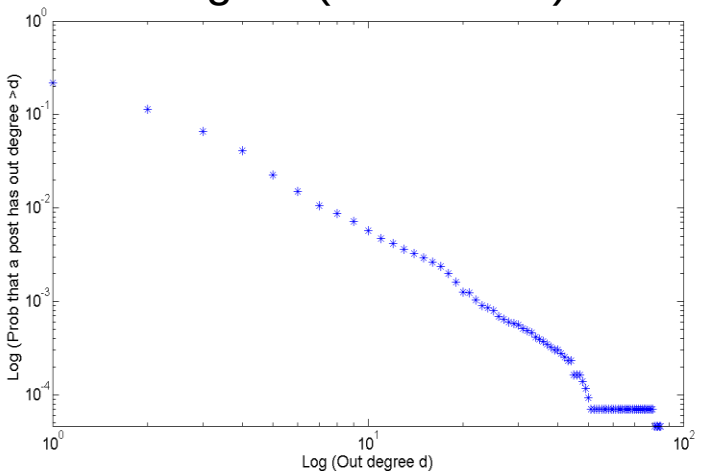
- Citation network statistics
  - 43,047 nodes.
  - 50,434 edges.
  - 906 authors

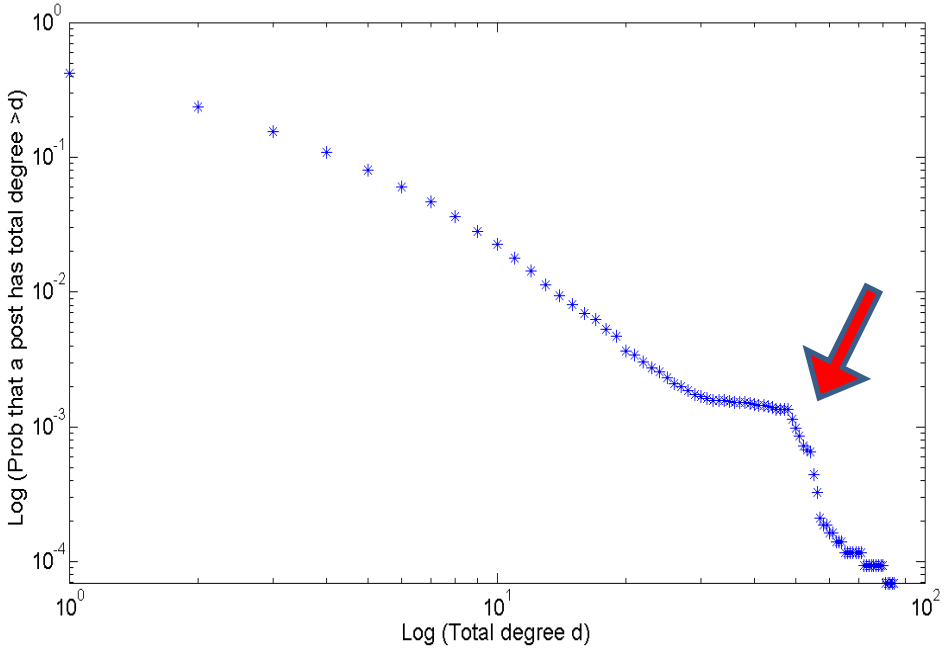
Degree distribution

In degree (be cited)



Out degree (cite others)

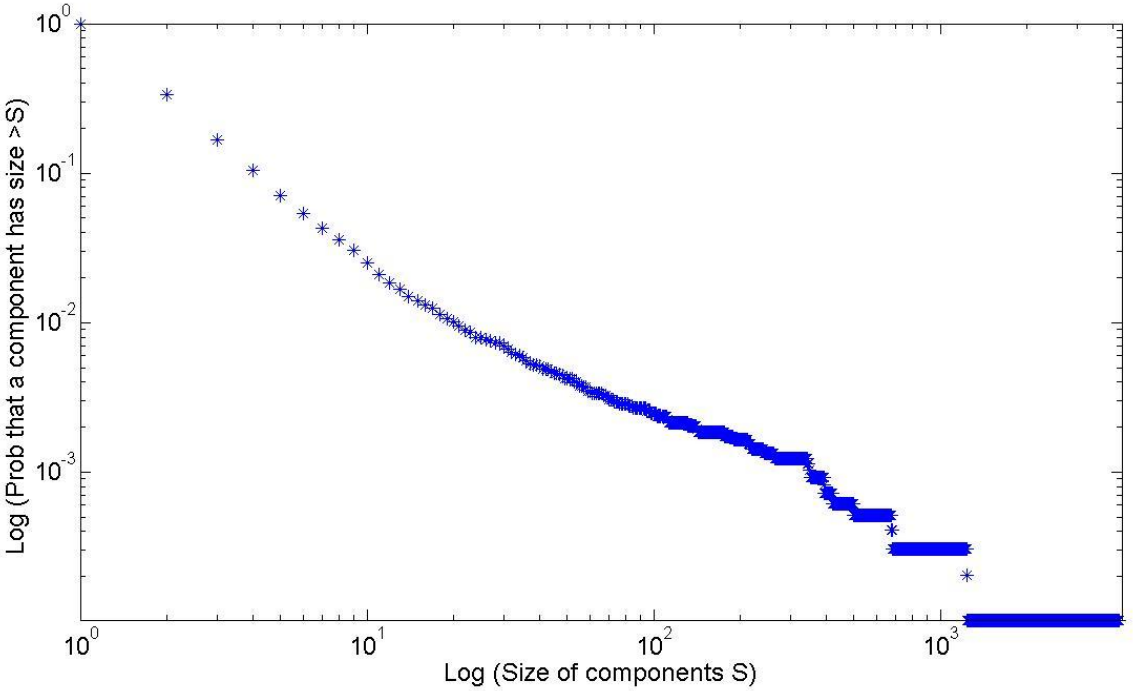




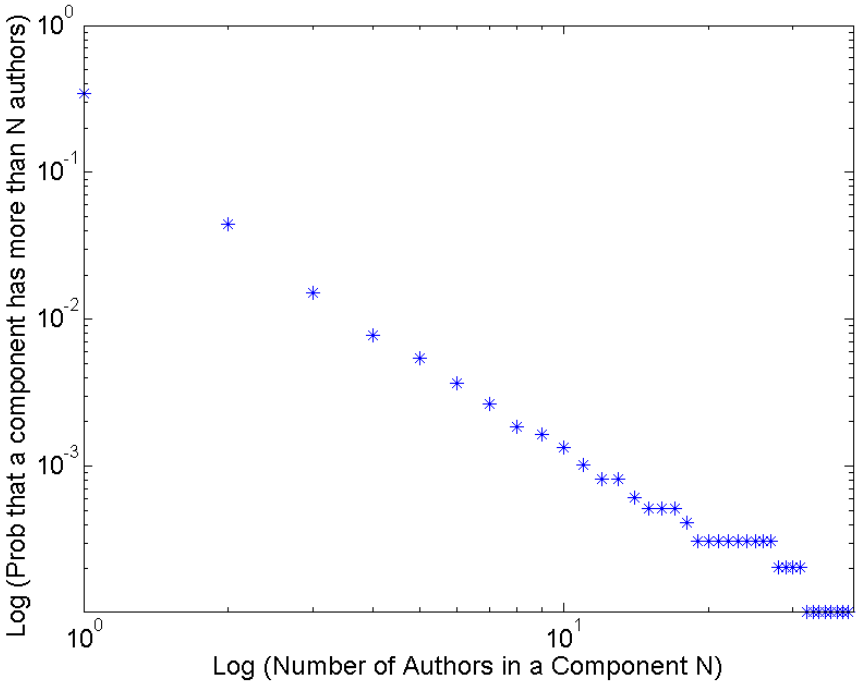
Total degree

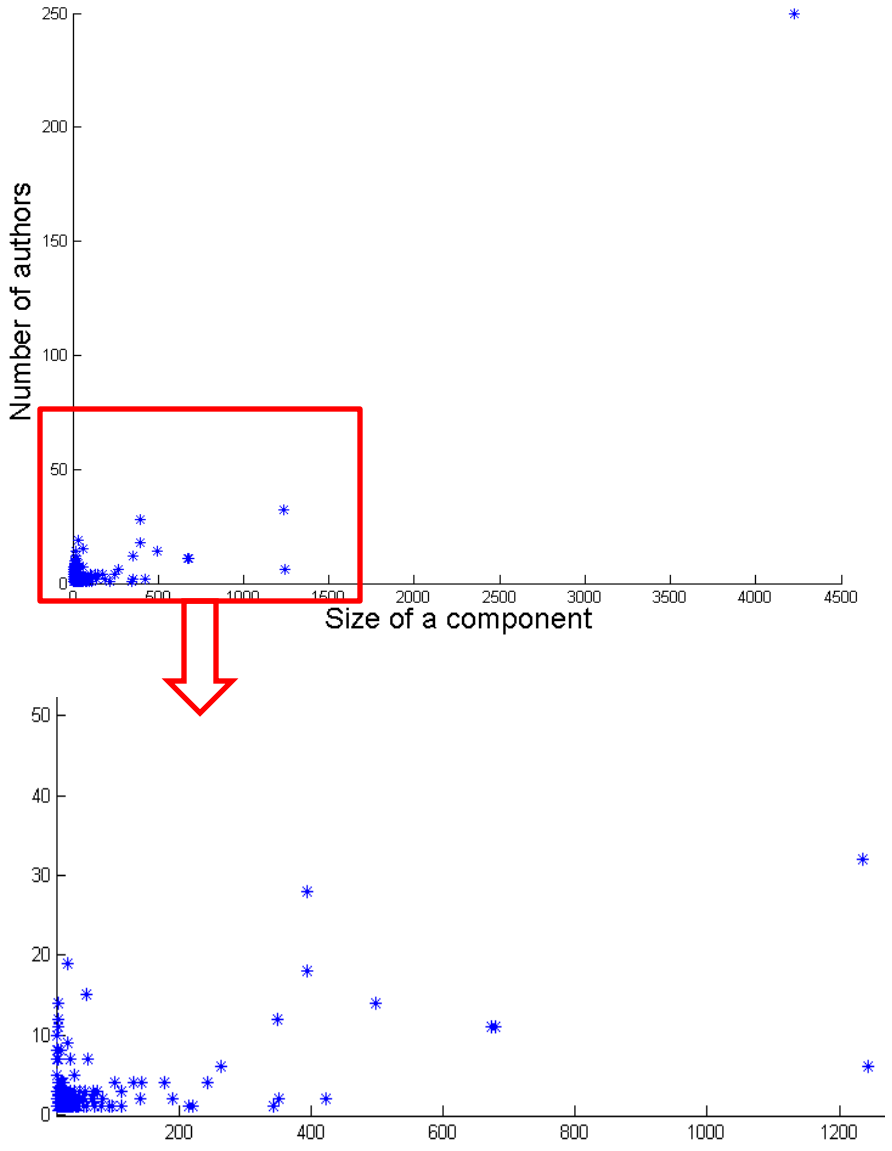
Connected components

- No giant component
- 9754 components that don't connect to each other
- The largest connected components have 4228 nodes
- Component size distribution

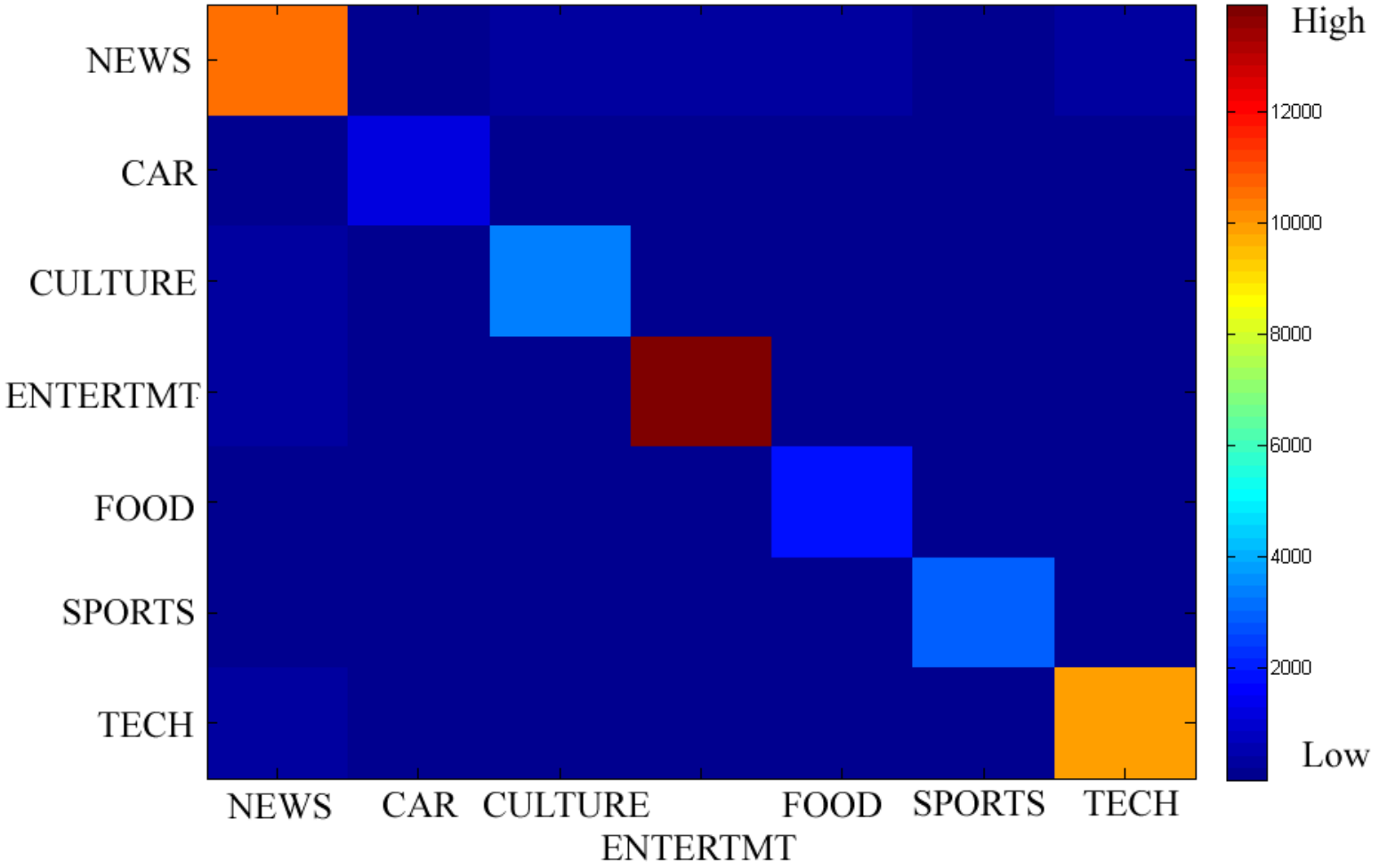


Number of authors in components





Citation count map

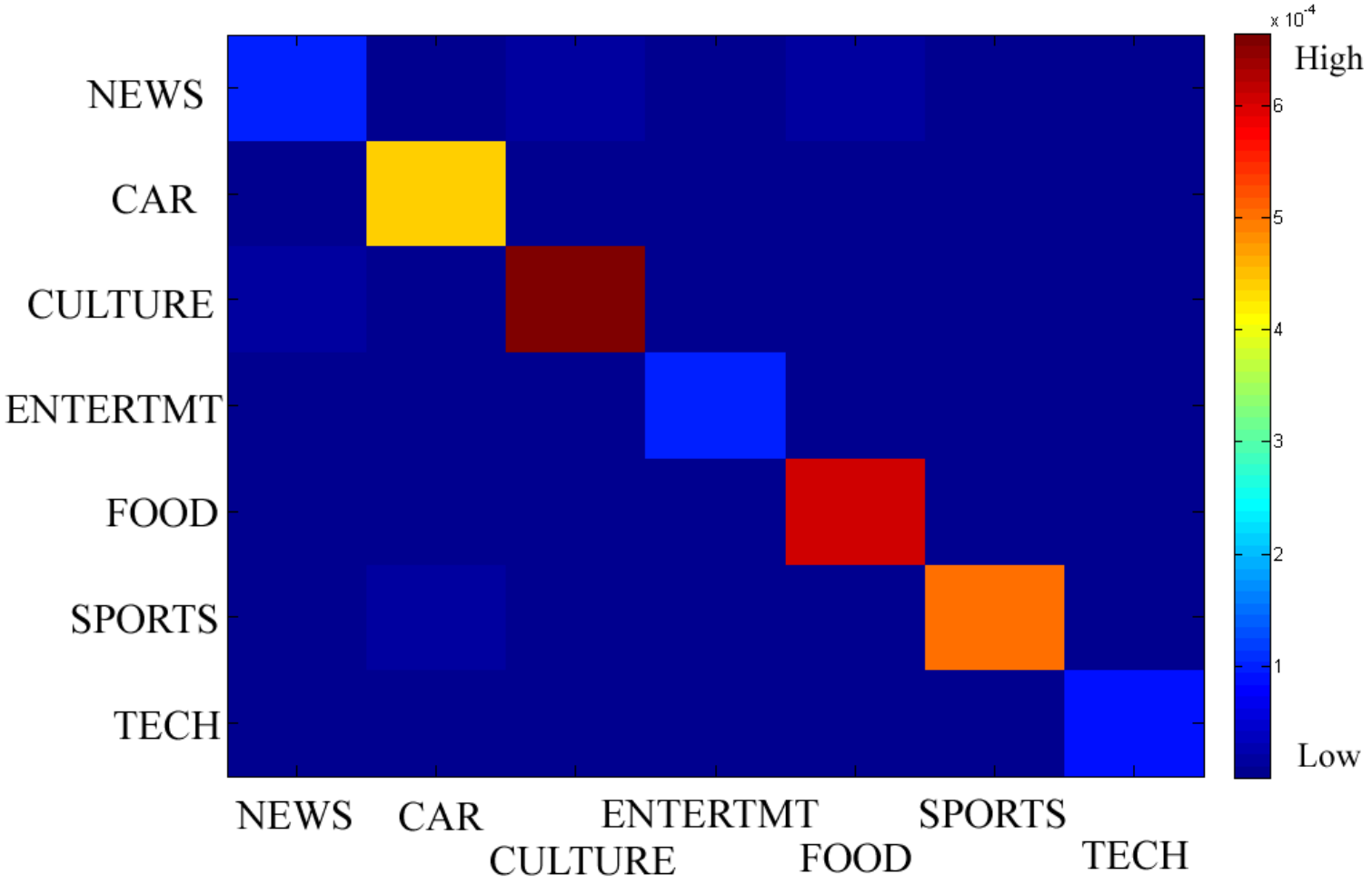


Highly assortative

The bias of citation count

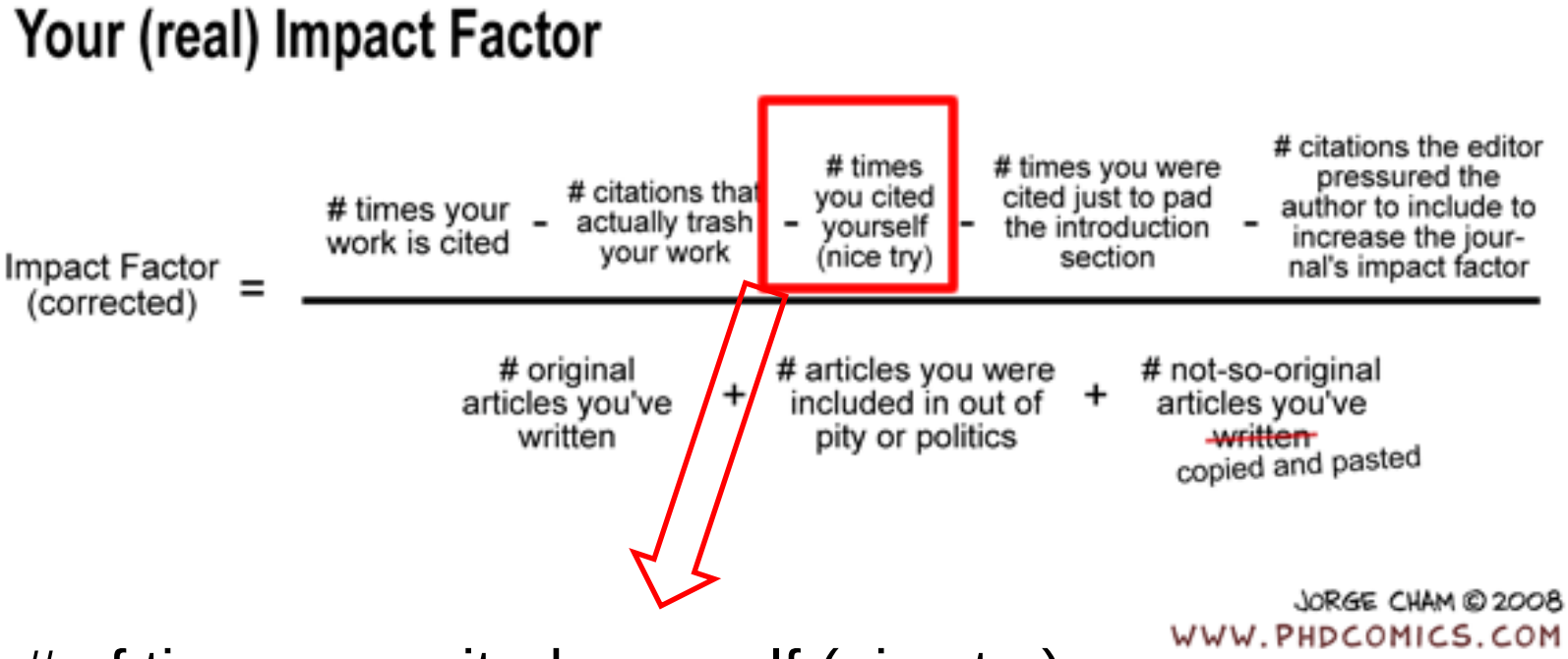
Tags/Topics	Number of posts
NEWS	10276
CAR	1683
CULTURE	2231
ENTERTAINMENT	12072
FOOD	1745
SPORT	2417
TECH	10652

Citation density map



Self-citation

- In academia, we often cite our own papers for good or bad reasons



# of times you cited yourself (nice try)

Well, we are not alone…

- Bloggers take self-citation to a new level
- 86% of the edges/citations are between posts from the same author!
- Why?
  - Boost their rankings?
  - Focus on one or two topics?
  - …

Future work

- More network properties
- More granularities of analysis
  - The level of connected components
  - The level of individuals: professional/amateur
- More networks
  - E.g. the author-author network
- More dynamics
- Identify influential bloggers and posts

Thank you!