ADCS Reaches Adulthood

An Analysis of the Conference and its Community over the last Eighteen Years

Bevan Koopman, Guido Zuccon, Lance De Vine, Aneesha Bakharia,
Peter Bruza, Laurianne Sitbon, Andrew Gibson

– turns 18, legal drink, gold coast schoolies
– general view that although small, ADCS is a good conference, a stepping stone to bigger venues like SIGIR and might have a influence wider than just those who attend
– apply of of our areas of expertise: content analysis of free-text docs & network analysis

Overview

- How influential is ADCS?

- What are the main topics of ADCS articles?

- Who makes up the ADCS community?

- How connected is the community and how has it evolved?

Data Acquisition

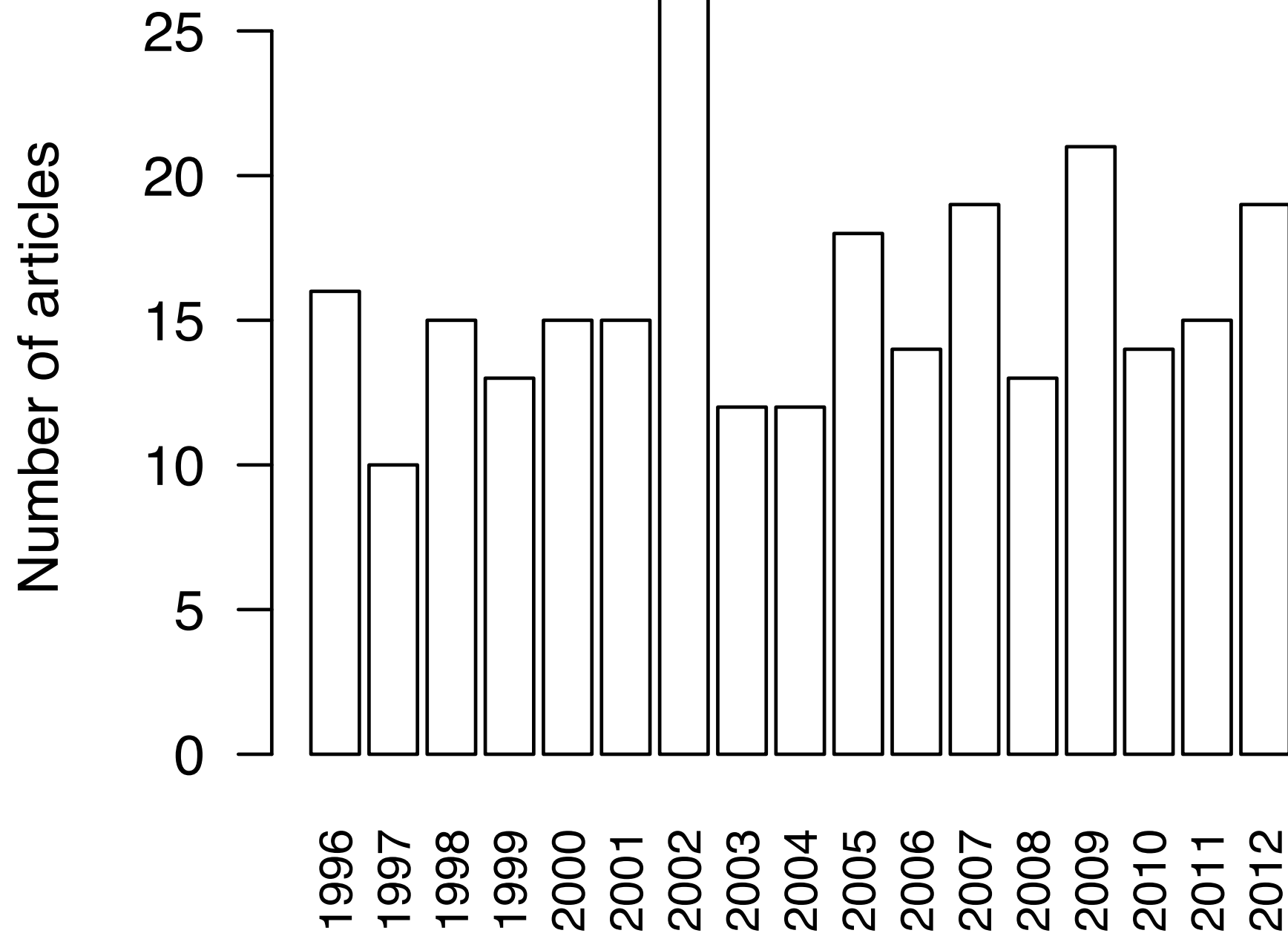Wednesday, 4 December 13
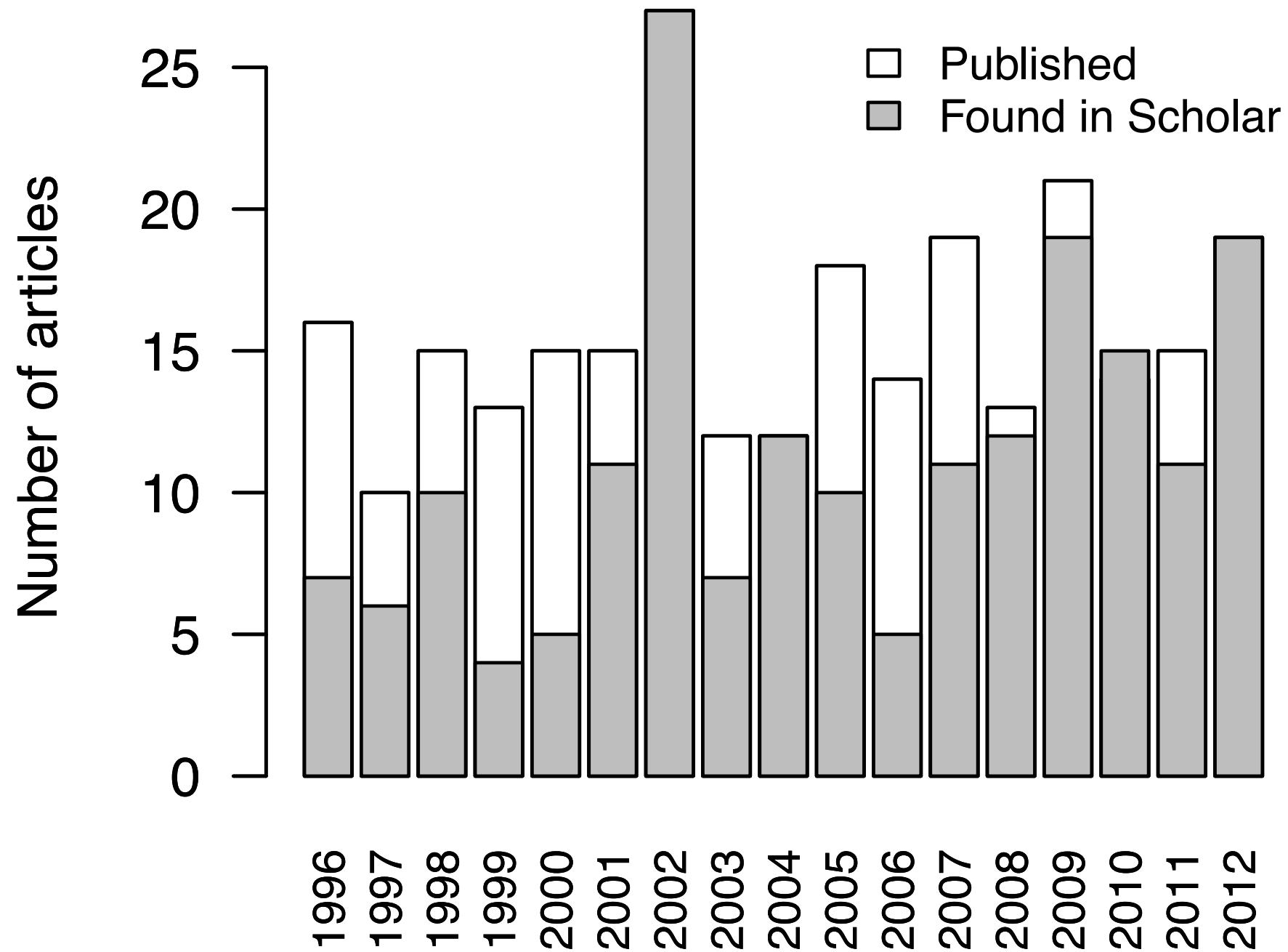
Data Collection

- ADCS proceedings (full text)

    - PDFs from past ADCS websites

    - Wayback Machine

    - Scan & OCR

- ADCS references in Google Scholar

    - Crawl Scholar for ADCS and save BibTeX

part a: for content analysis
part b: for citation and co-authorship networks

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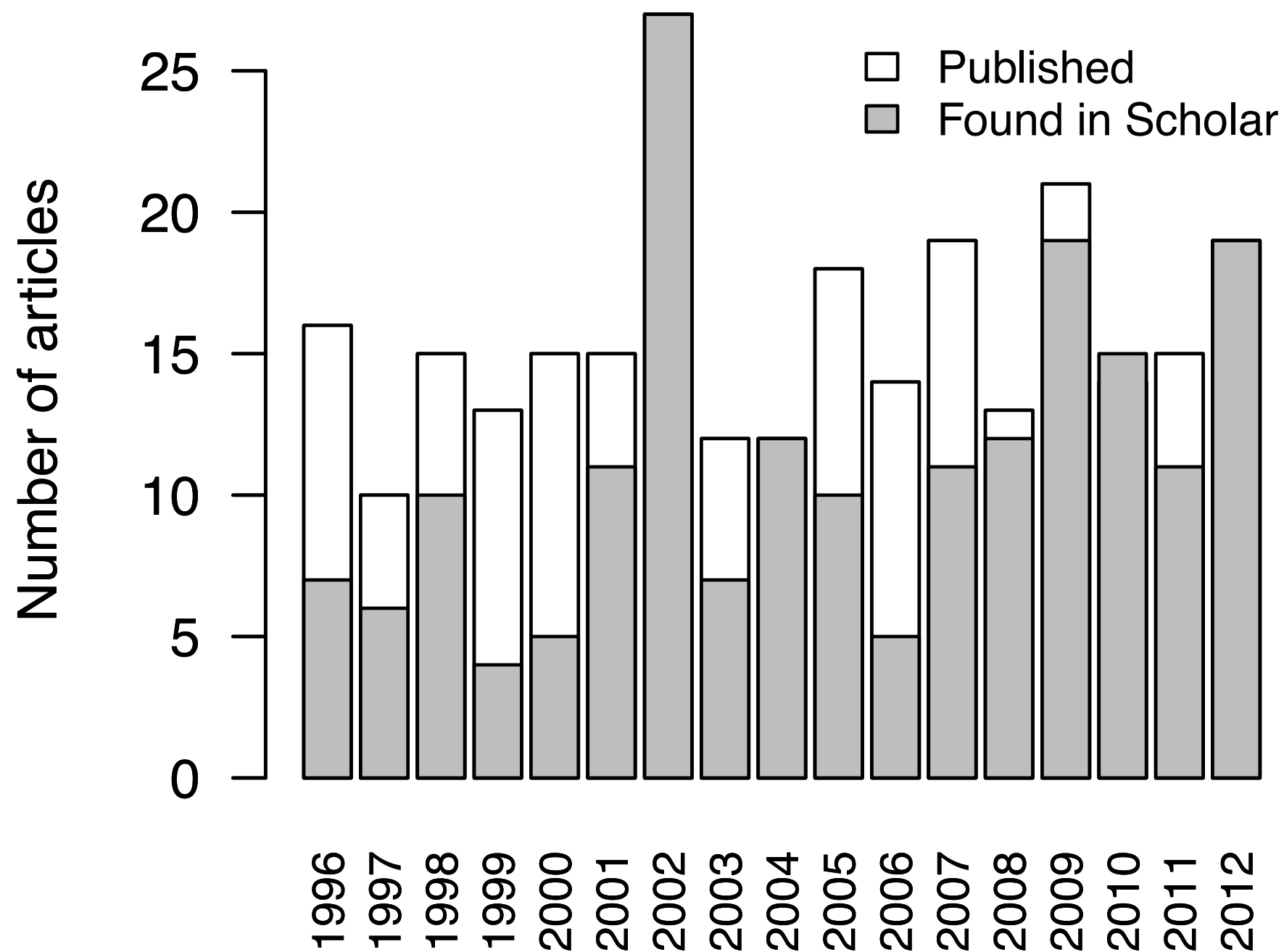 - Crawl Scholar for ADCS and save BibTeX

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Coverage

– number of articles published according to the progam

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Coverage

191 / 268 (72%) of articles found in Scholar

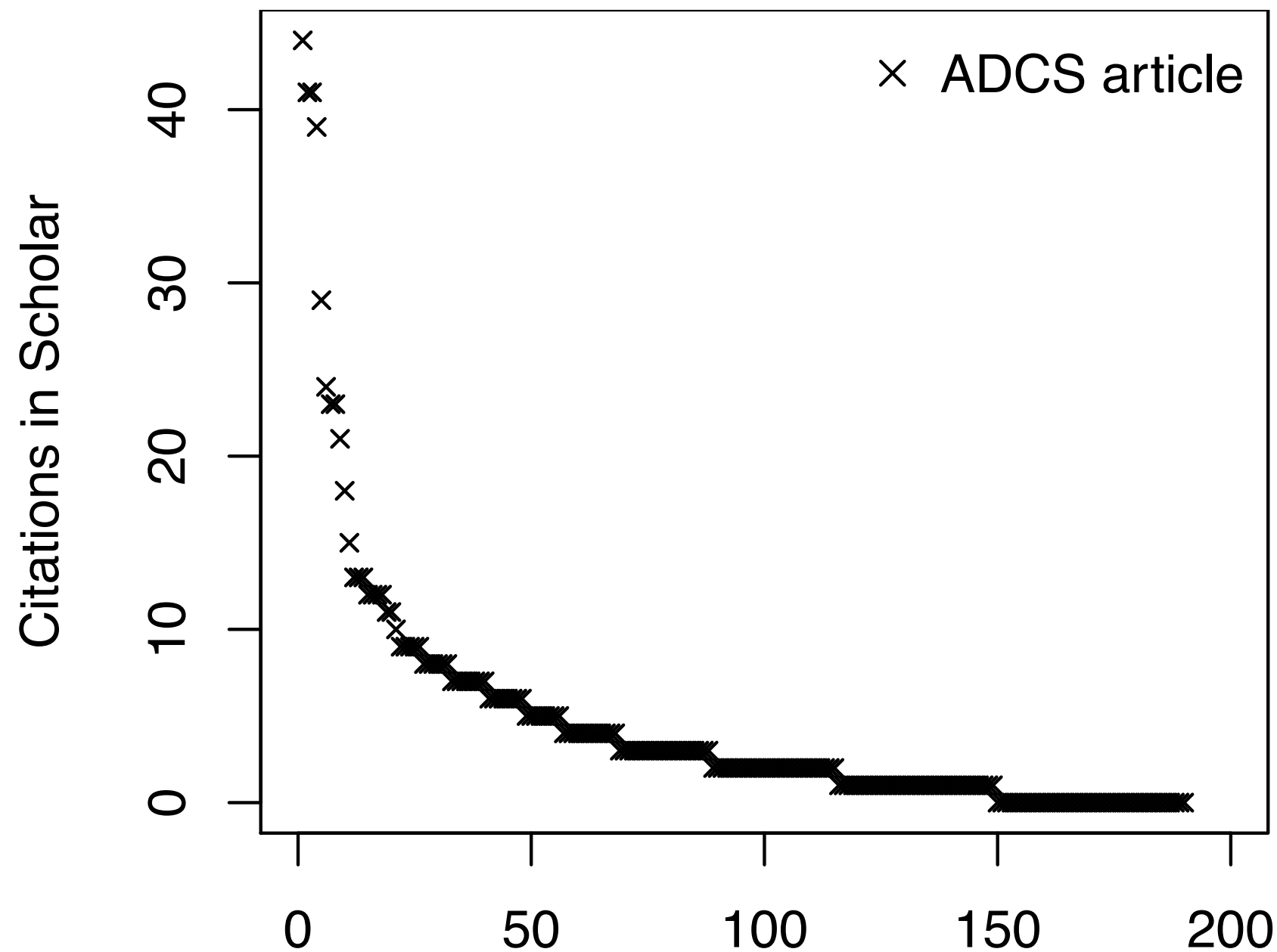– number of articles published according to the progam

Analysis of the Conference
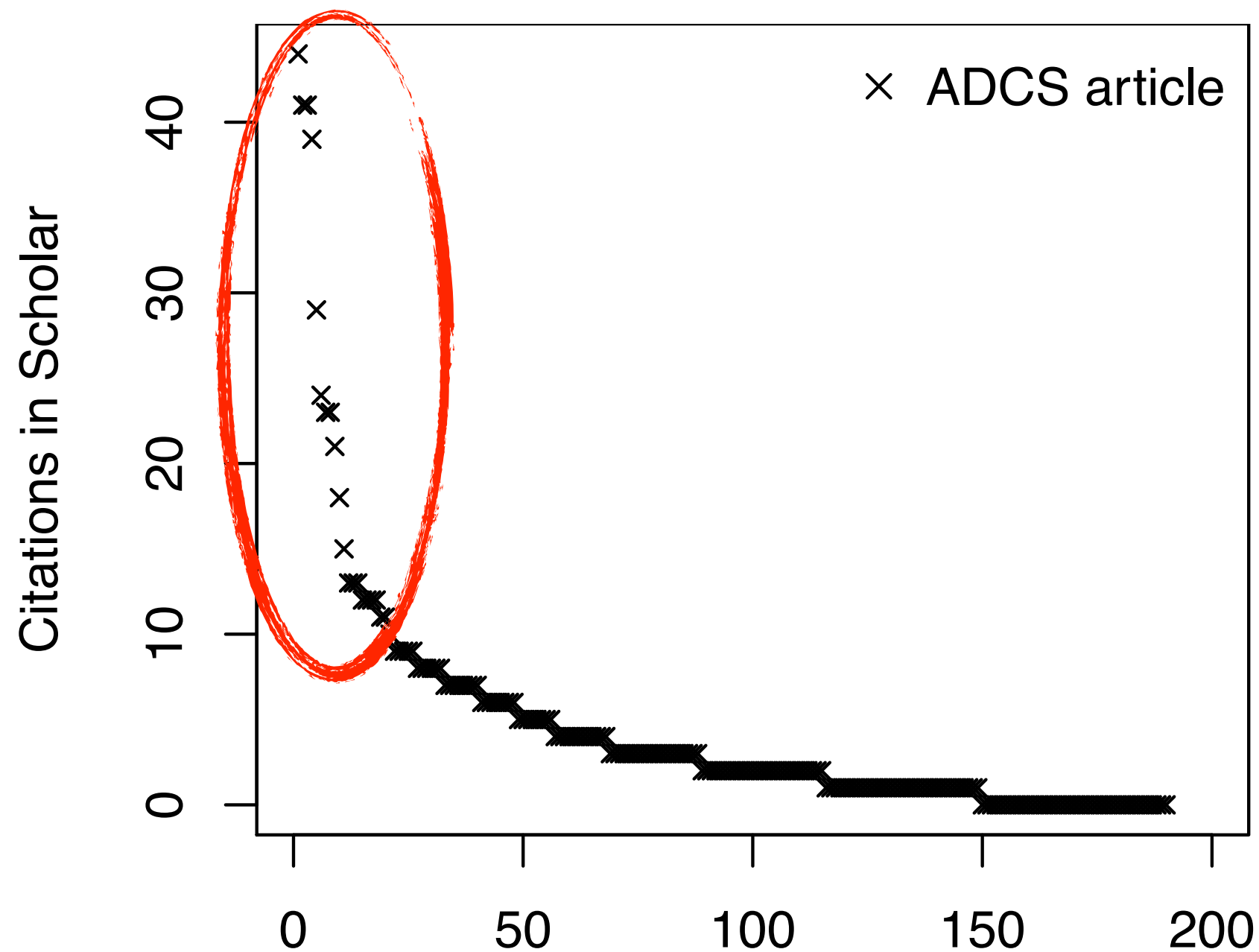
Wednesday, 4 December 13

How influential is ADCS?

- Number of citations to ADCS articles.

- Which venues cite the 20 most cited ADCS articles?

Citations to Articles

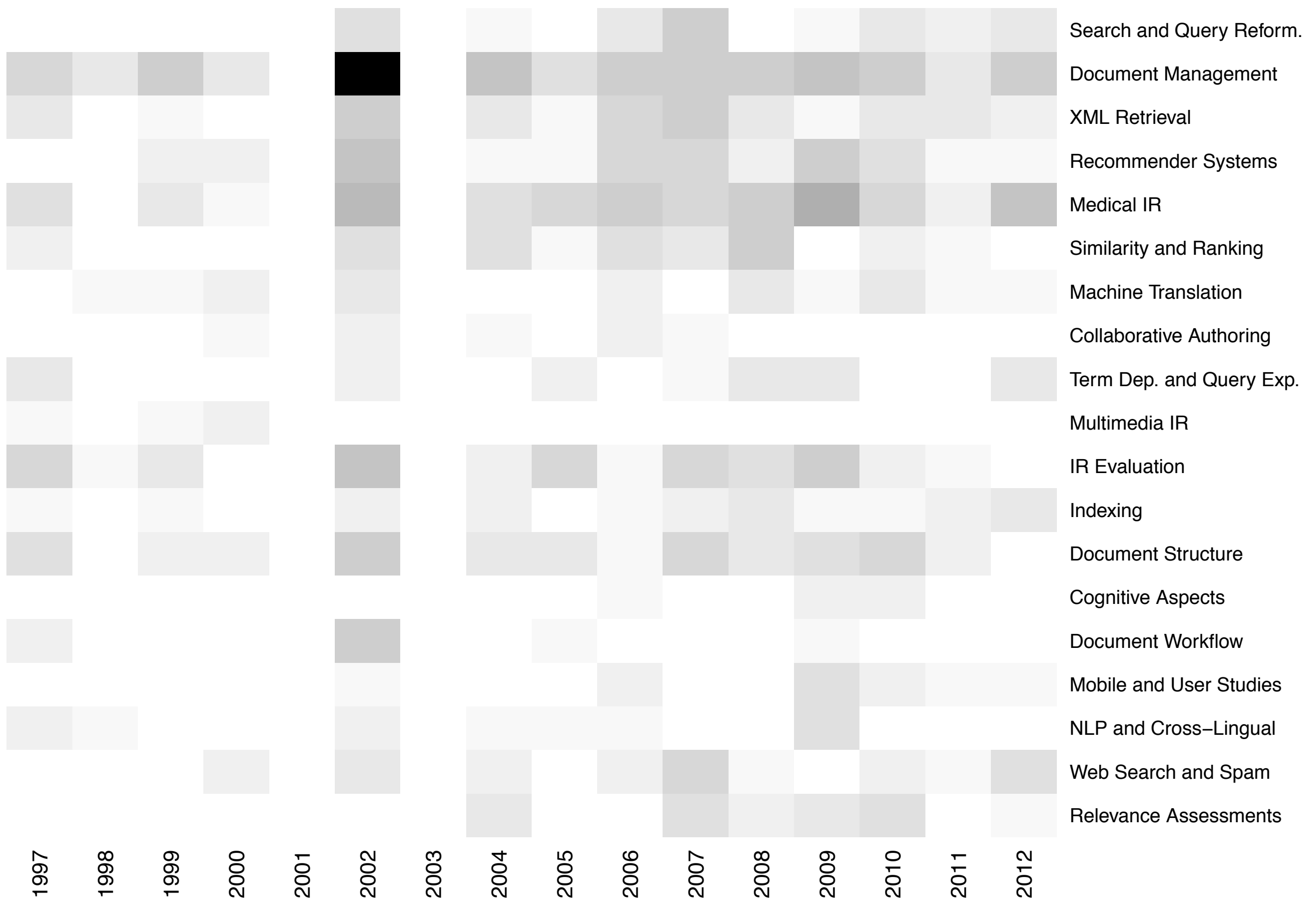Mean: 4.6
Median: 2

Citations to Articles

Citing Venues

Venue	#Citations
SIGIR	9
CIKM	7
IR Journal	7
ADCS	6
JASIST	5
WWW Conference	5
ECIR	5
TOIS	4
Modern IR Book [Baeza-Yates, 1999]	4
Journal of Human Computer Studies	4

Foundations and Trends; ACM Computing Surveys

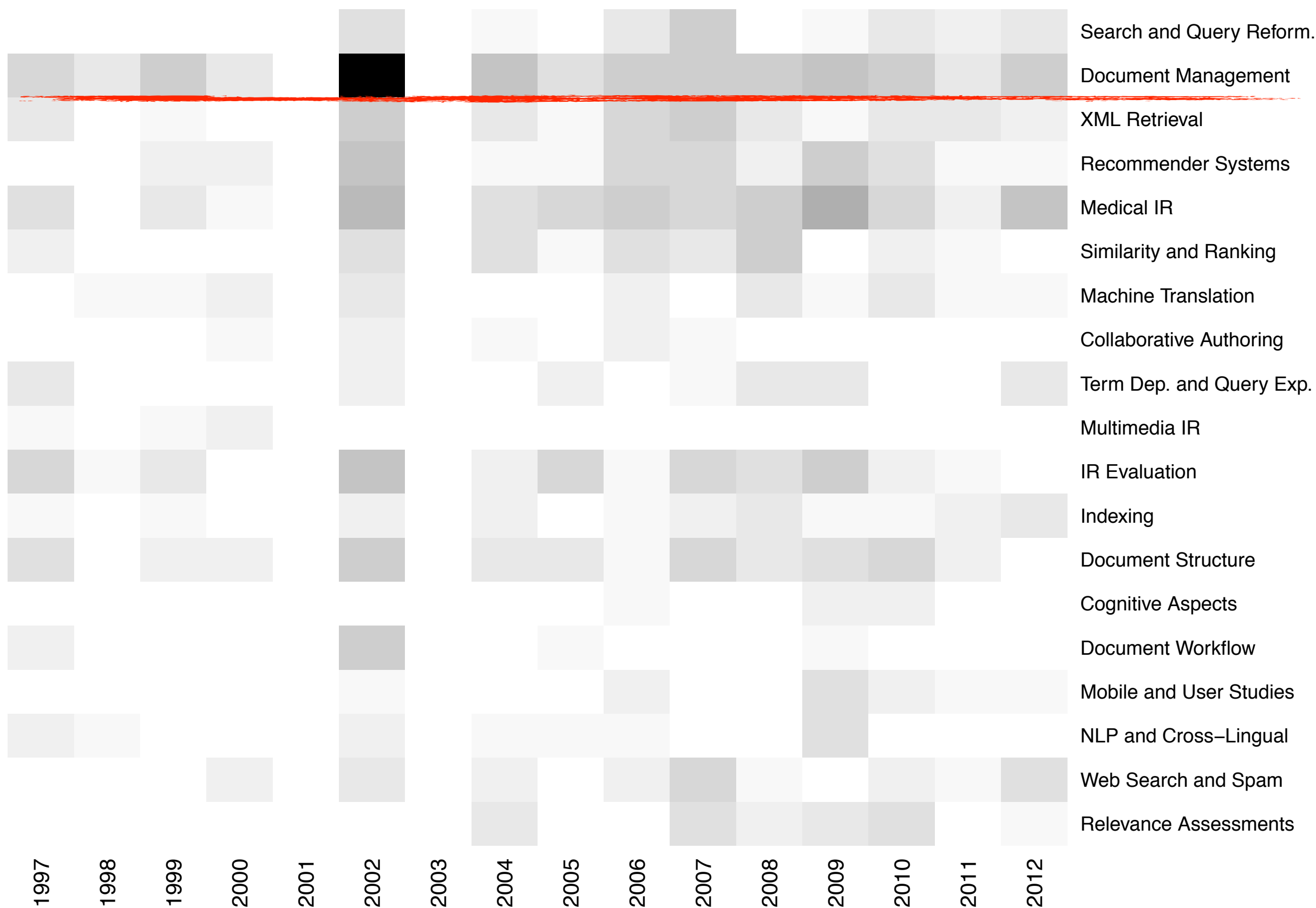| Field	Example Venue
HCI	Advances in Human Computer Interaction
Bioinformatics	PloS ONE
Cognitive Science	Behaviour Research Methods
AI	Journal of Artificial Intelligence Research
Machine Learning & Pattern Recognition	Pattern Recognition (ICPR);
Data & Knowledge Engineering	SIGKDD, SIGMOD
NLP?	

More at: http://www.github.com/ielab

– Diversity of interests

What are the topics of ADCS?

- Analyse free-text content of ADCS articles

- Topic analysis based on Non-Negative Matrix Factorisation

- We manually assigned labels to each latent topic, e.g.:

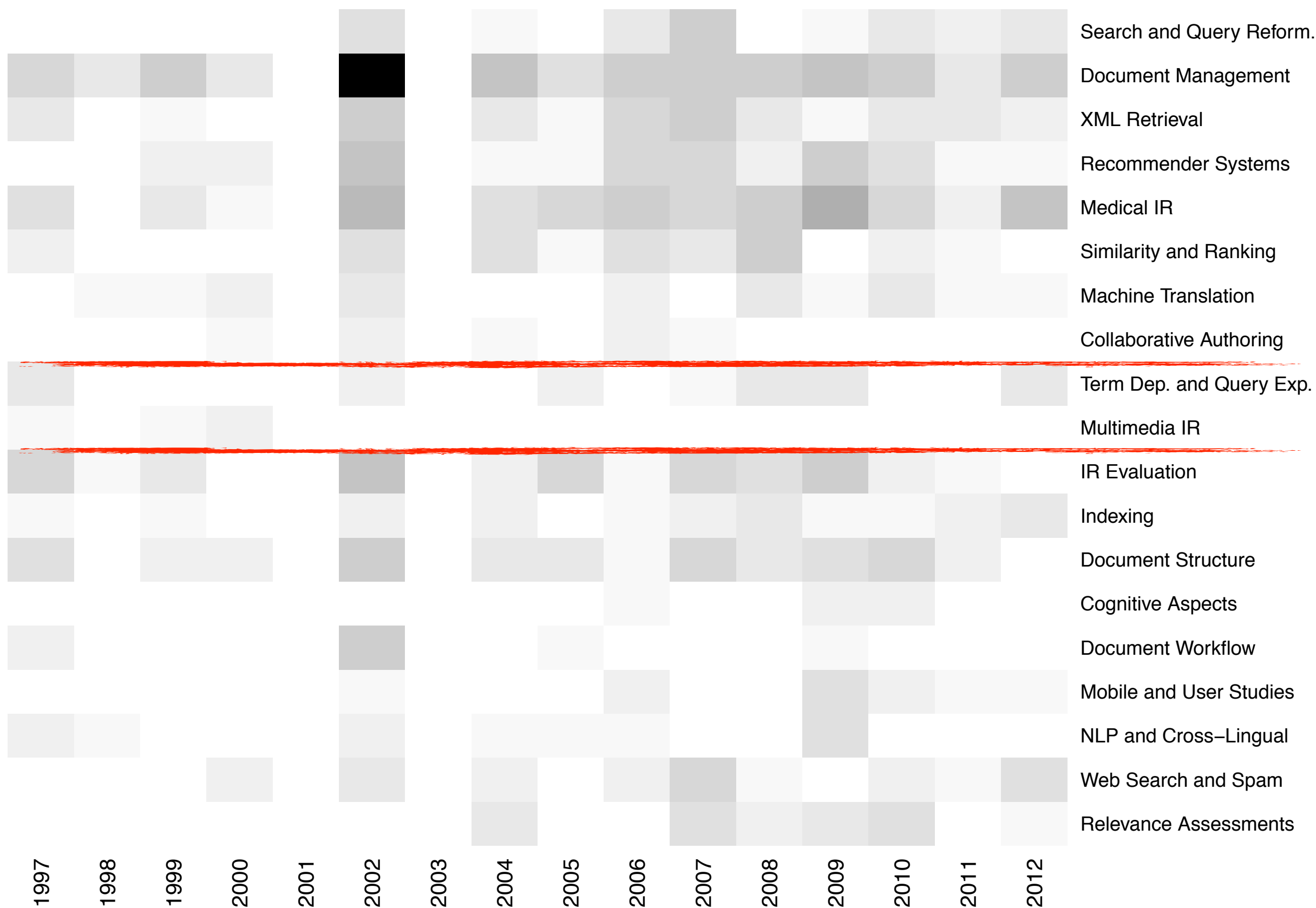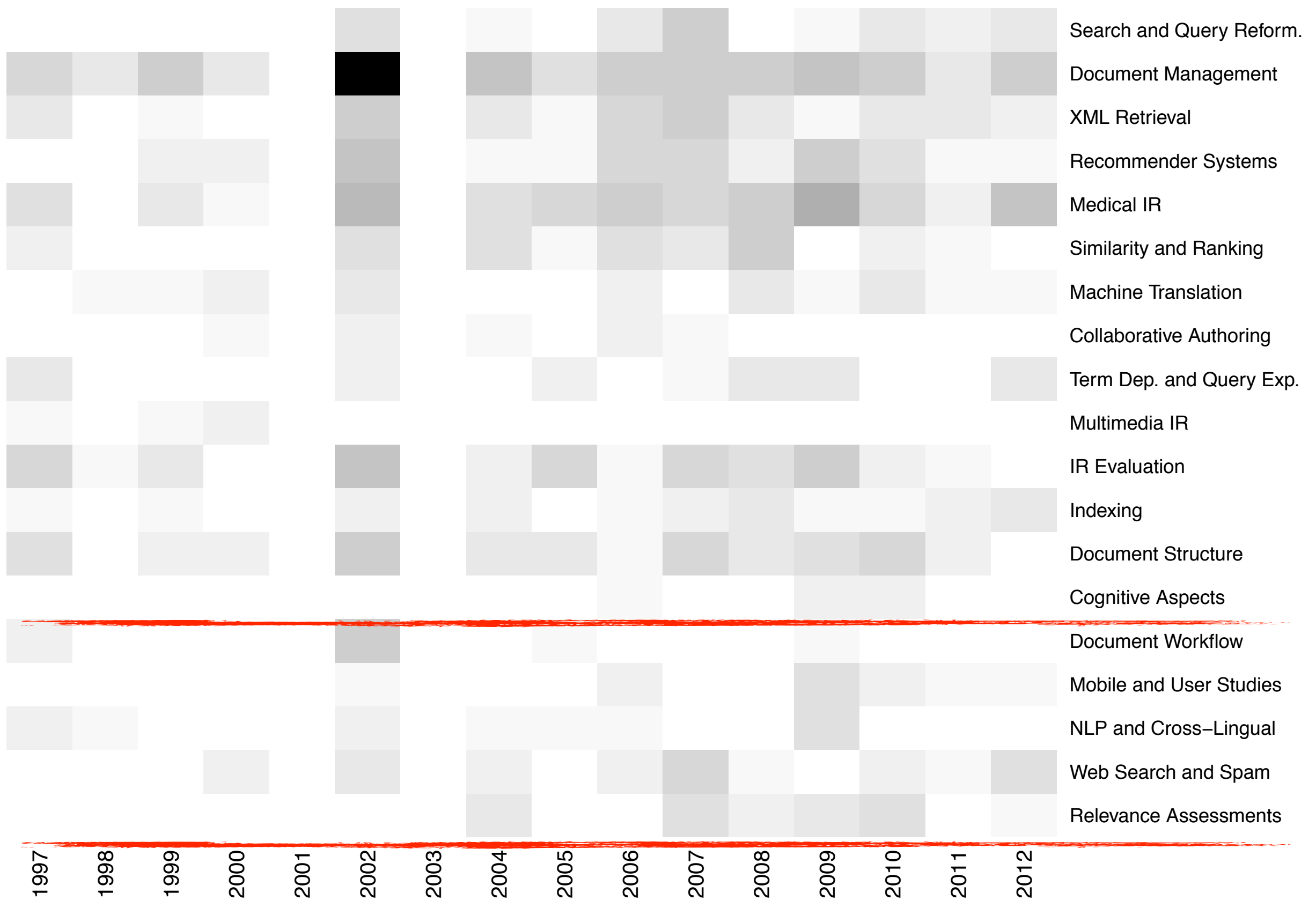 - *retriev, passag, element, xml, relev, inex* = XML Retrieval

Search and Query Reform.
Document Management
XML Retrieval
Recommender Systems
Medical IR
Similarity and Ranking
Machine Translation
Collaborative Authoring
Term Dep. and Query Exp.
Multimedia IR
IR Evaluation
Indexing
Document Structure
Cognitive Aspects
Document Workflow
Mobile and User Studies
NLP and Cross–Lingual
Web Search and Spam
Relevance Assessments

1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

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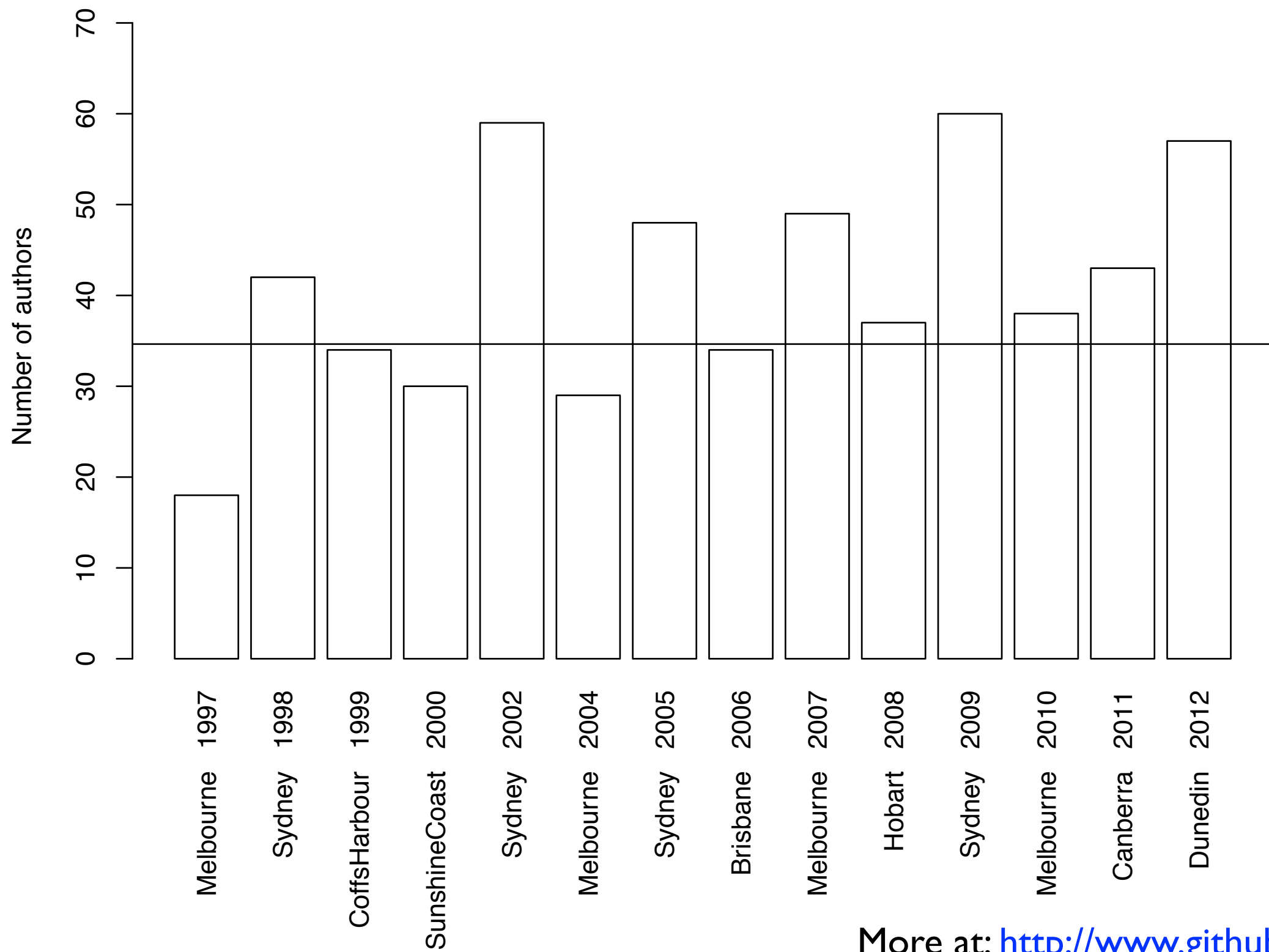
The Authors

- Number of authors per year.

- Where do ADCS authors come from?

  - Count authors by region

Authors per Year

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Authors per Year

Number of authors

Melbourne 1997
Sydney 1998
CoffsHarbour 1999
SunshineCoast 2000
Sydney 2002
Melbourne 2004
Sydney 2005
Brisbane 2006
Melbourne 2007
Hobart 2008
Sydney 2009
Melbourne 2010
Canberra 2011
Dunedin 2012

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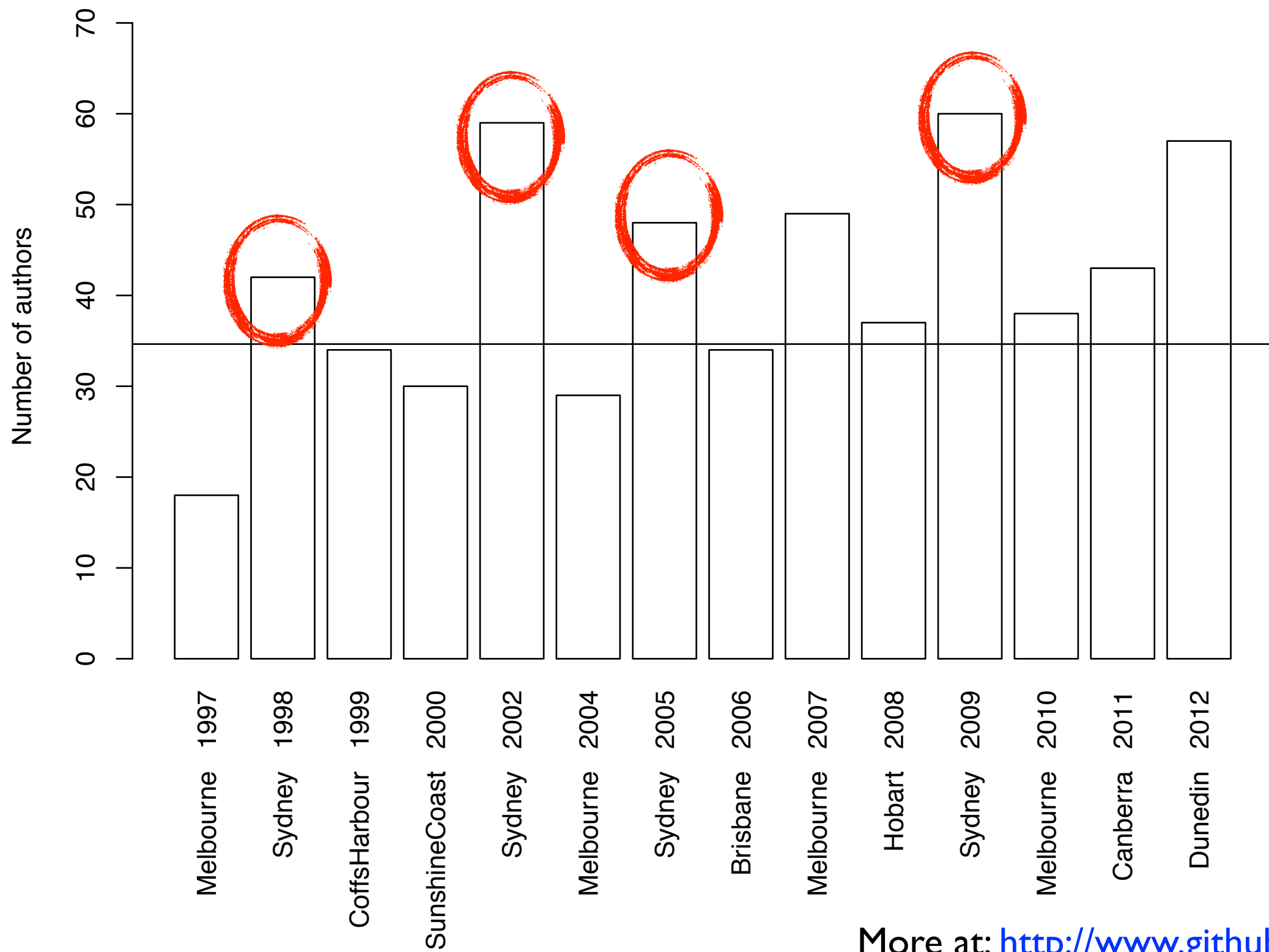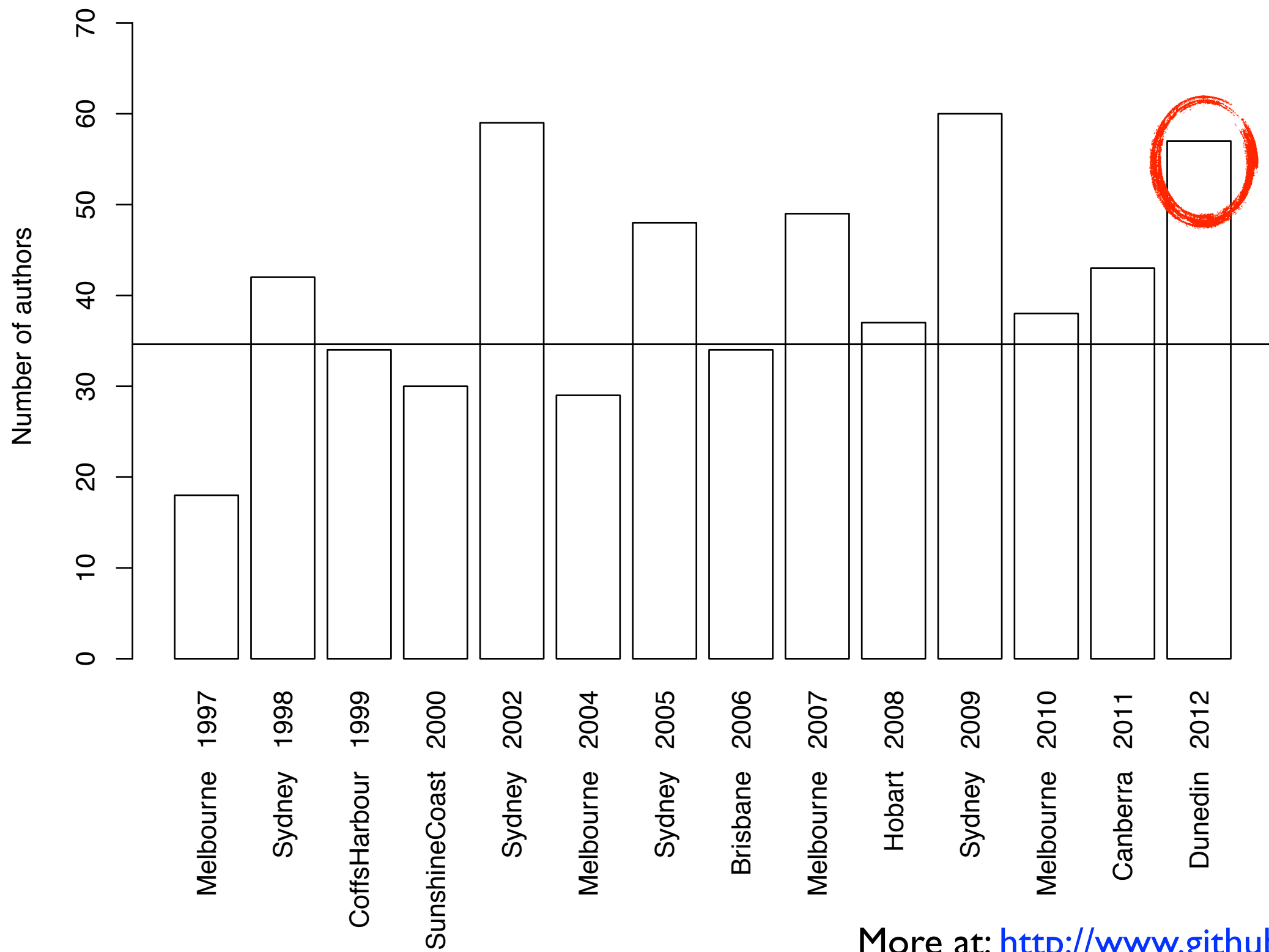
Contributions by Region
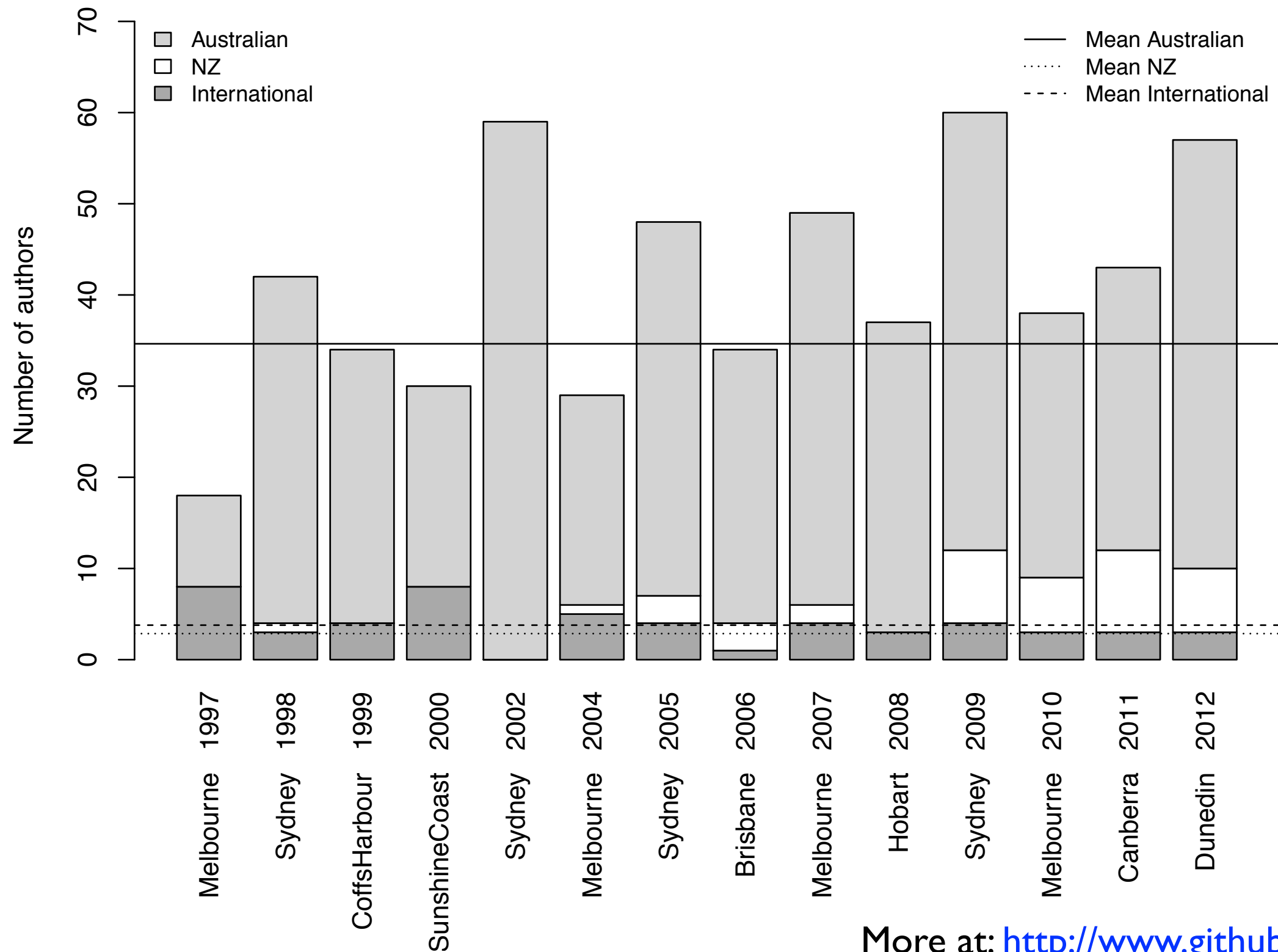
The Community

- Co-authorship network built from BibTeX

- How large is the community?

- How is it connected?

- Who collaborates with who?

- How has the community grown?

1996 - 2000

1996 - 2003
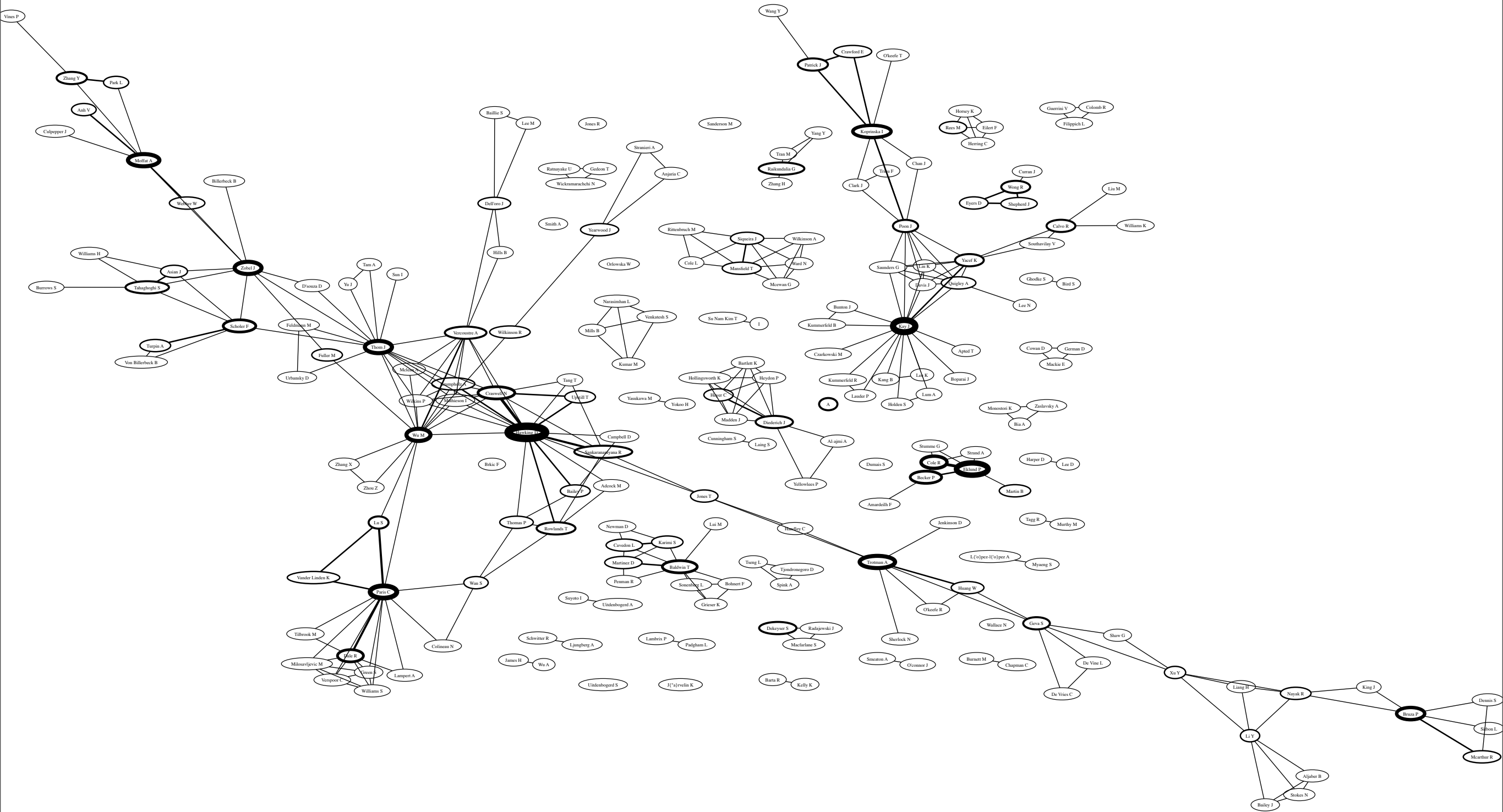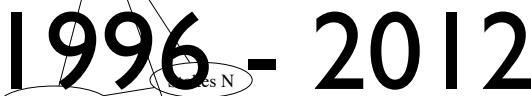
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1996 - 2006

1996 - 2009

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1996 - 2012

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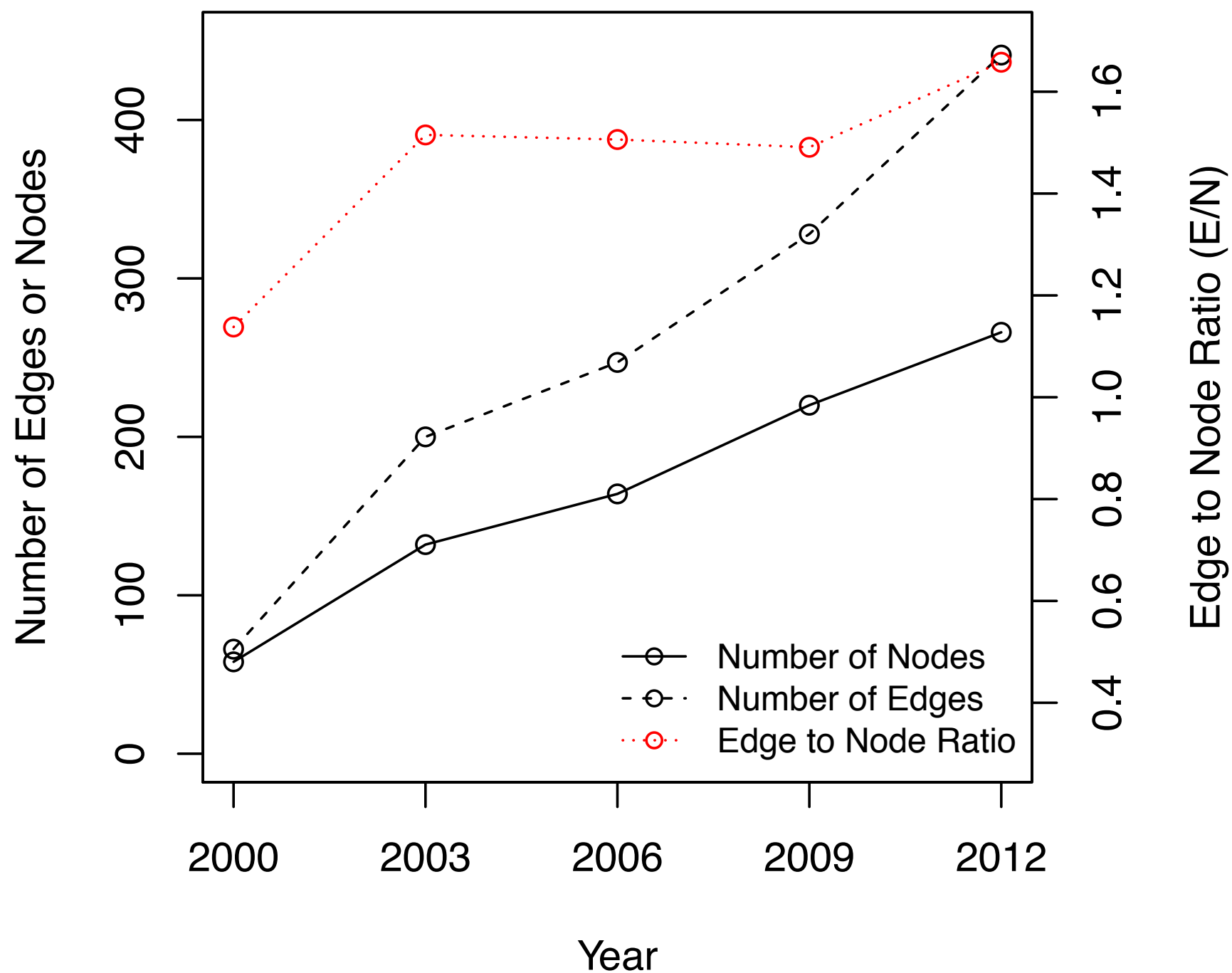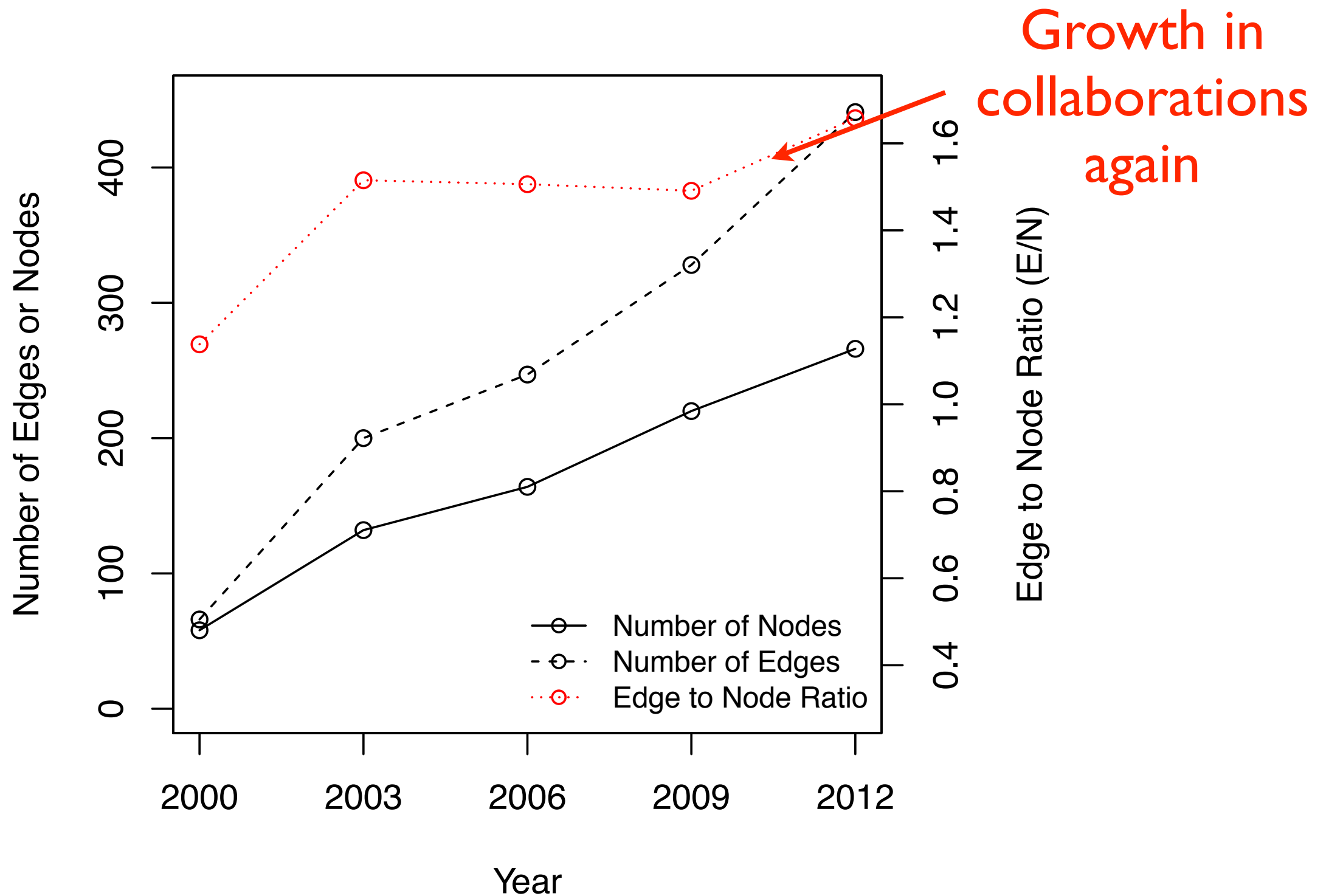
New Authors vs. New Collaborations

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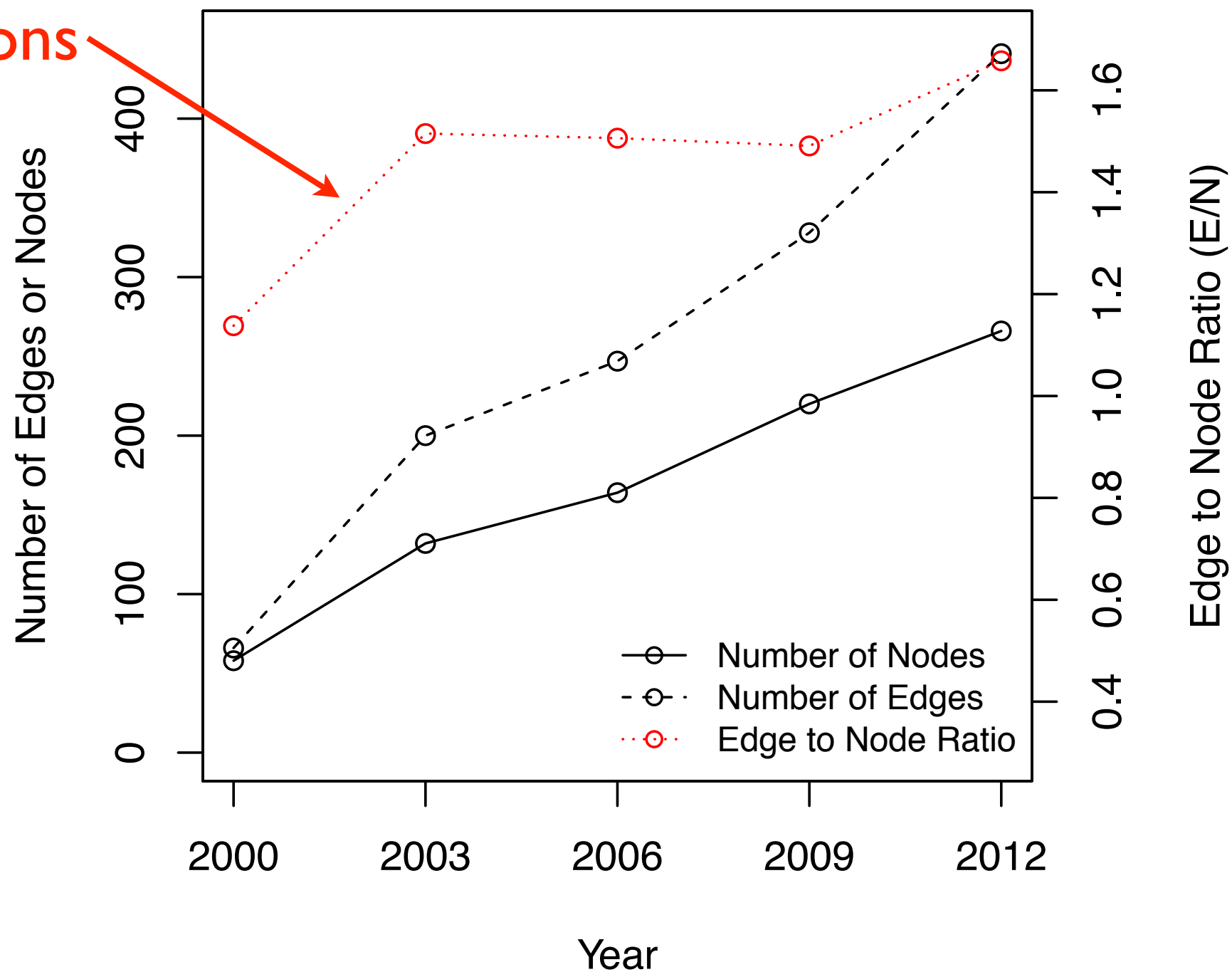
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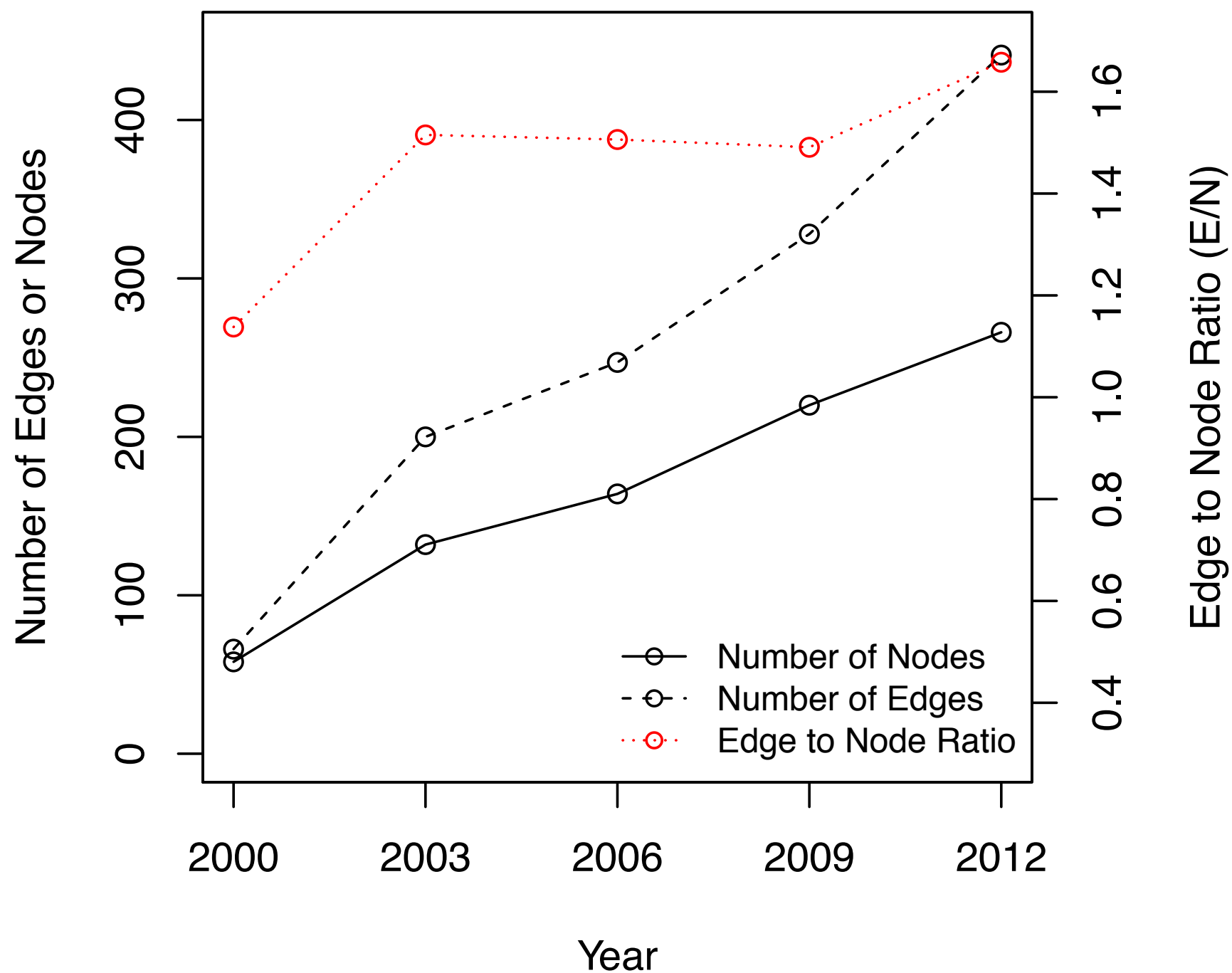
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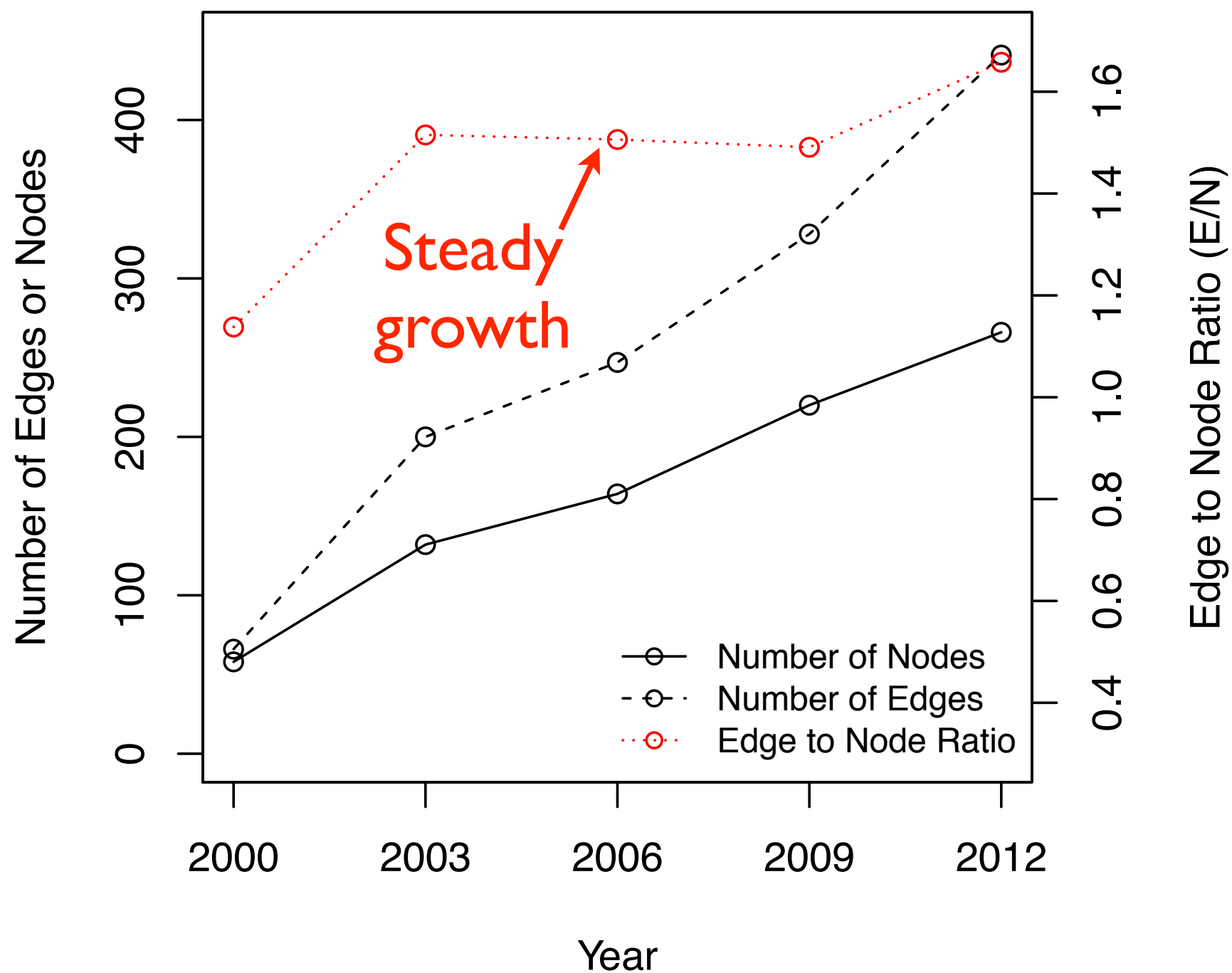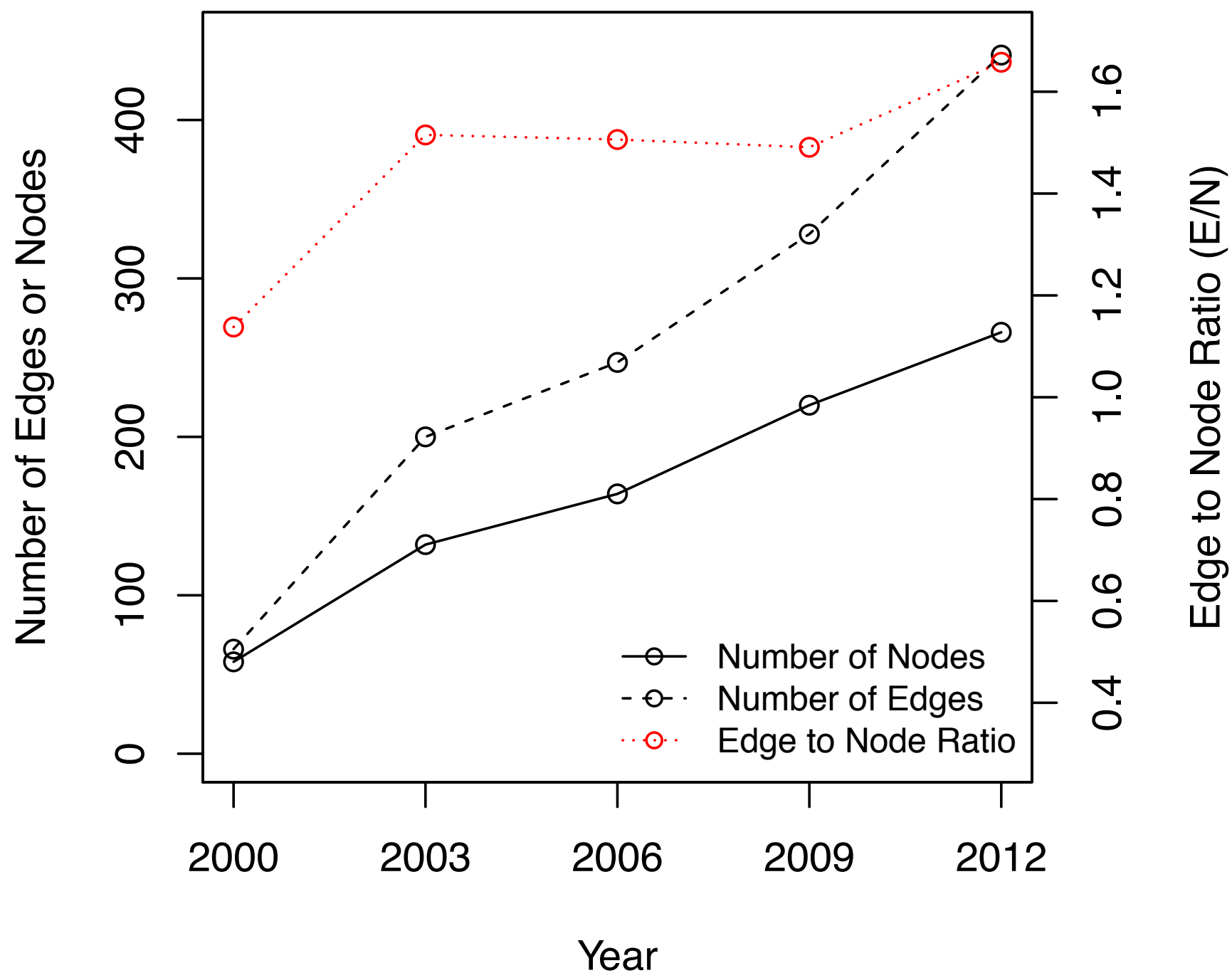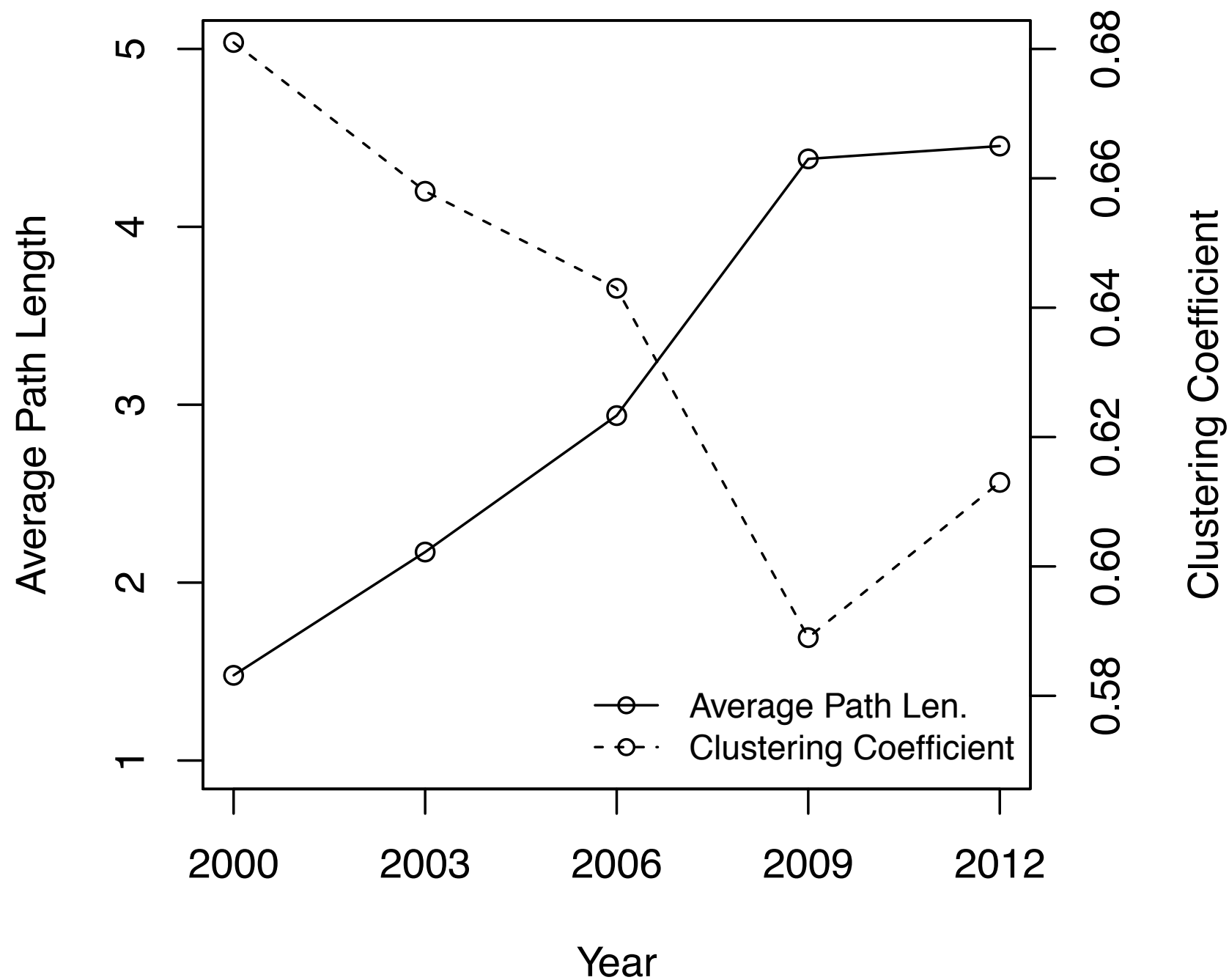# New Authors vs. New Collaborations

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New Authors vs. New Collaborations

ADCS: a small-world network?

Final remarks

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- Not all articles available - preservation?

- ADCS has an impact on larger community

- Consistent international contributions

- Diverse topics; not just IR

- Geographic collaborations

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