Science of Science?

Social network analysis in Afghanistan

Joshua Blumenstock is studying the effect of unexpected shocks on network activity in Afghanistan with collaborators at Princeton, UW, UCLA, and UC Berkeley

Research Focus Areas

Data for Development
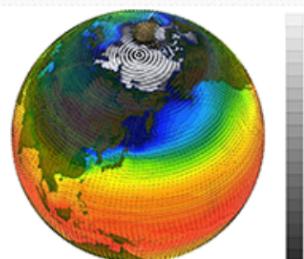
Social Networks

Data Visualization
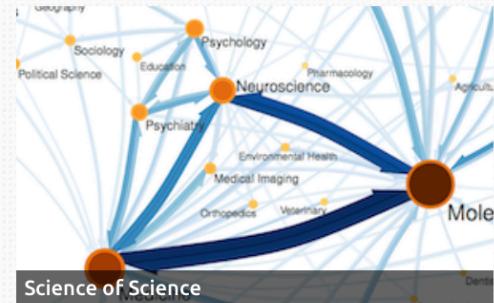
**Computational Social Science**
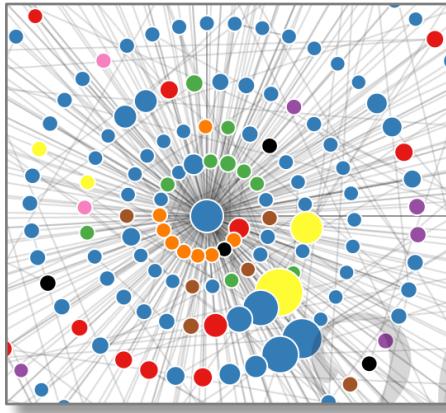
Data Curation
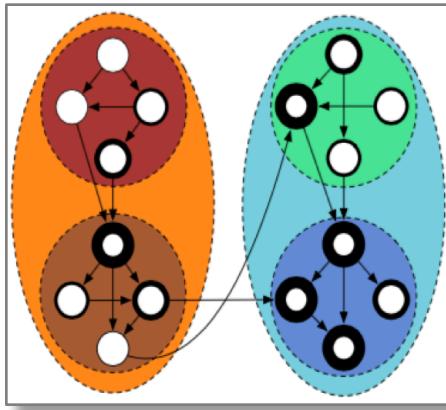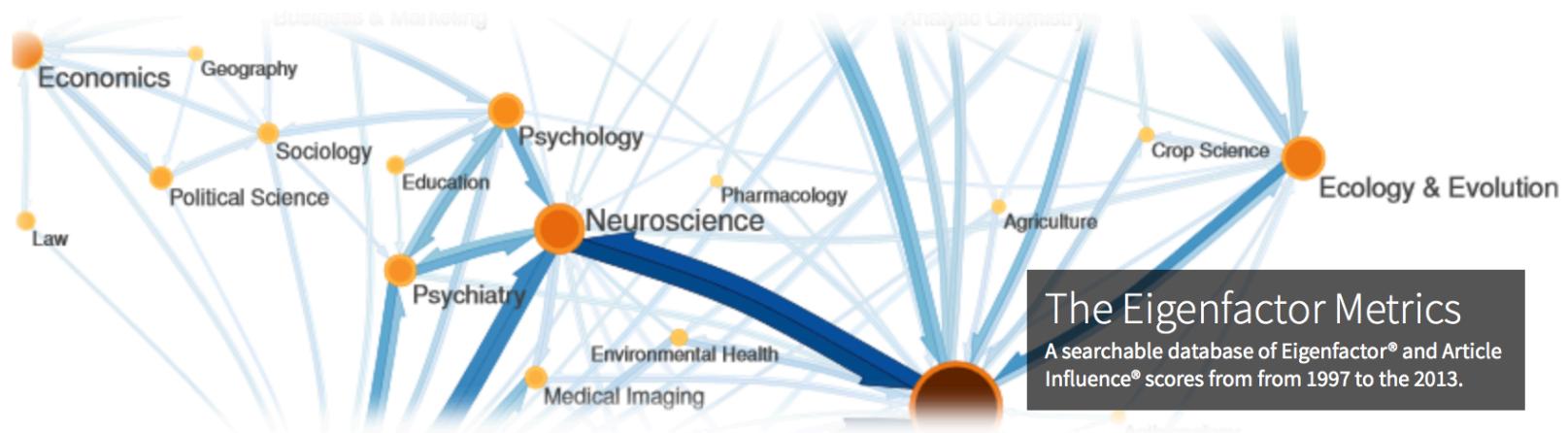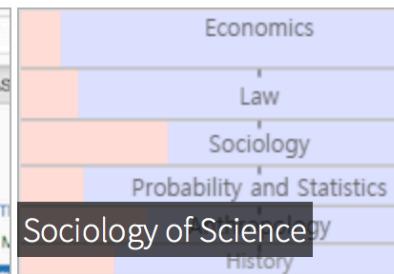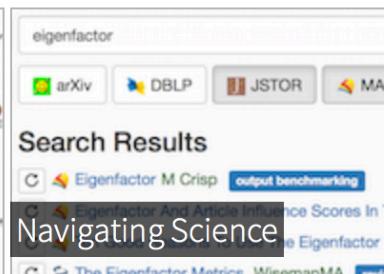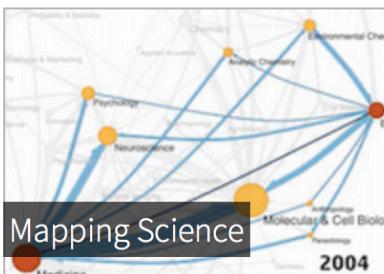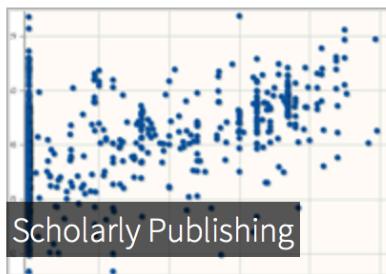
Science of Science

Knowledge Science

Knowledge Engineering

The Eigenfactor Metrics

A searchable database of Eigenfactor® and Article Influence® scores from from 1997 to the 2013.

RESEARCH AREAS

Scholarly Publishing

Mapping Science

Navigating Science

Sociology of Science

NEWS

23
Nov.

JEVIN WEST ON MEGAJOURNALS IN THE *CHRONICLE OF HIGHER EDUCATION*

Jevin West discusses the rise of the megajournal and our open access cost effectiveness tool in the *Chronicle of Higher Education*.
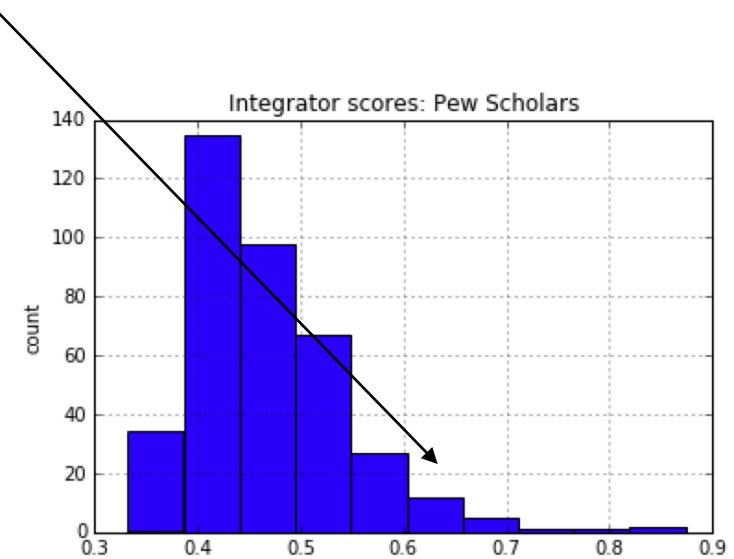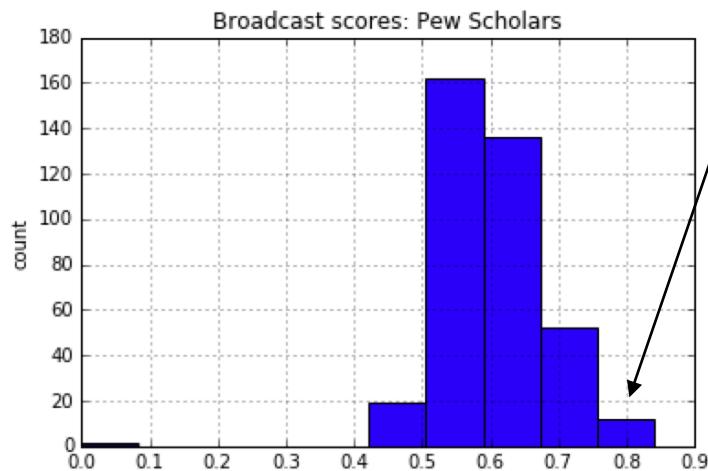
23
Nov.

EIGENFACTOR TEAM PLACES SECOND IN MICROSOFT RESEARCH'S WSDM CUP

The WSDM Cup Challenge asked teams to use 30GB of data from the Microsoft Academic Graph to rank the

Measuring Interdisciplinarity

Carl and Jacob
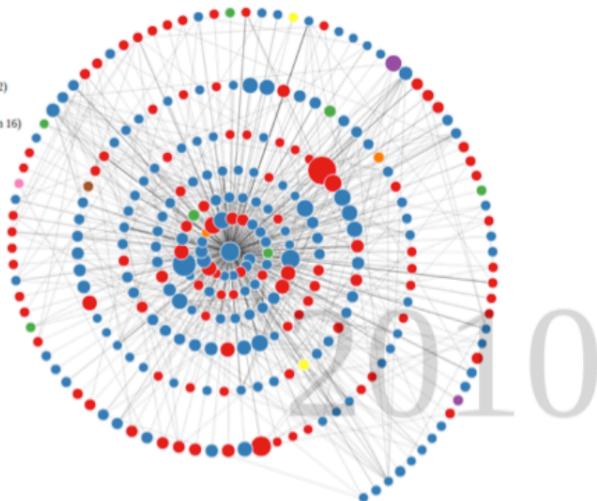
Bergstrom, CT, Foster, J, Portenoy, J, A. Misra, West, JD. (2016). Measuring interdisciplinarity without subject categories. (in prep)

Visualizing Interdisciplinarity

Jason Portenoy
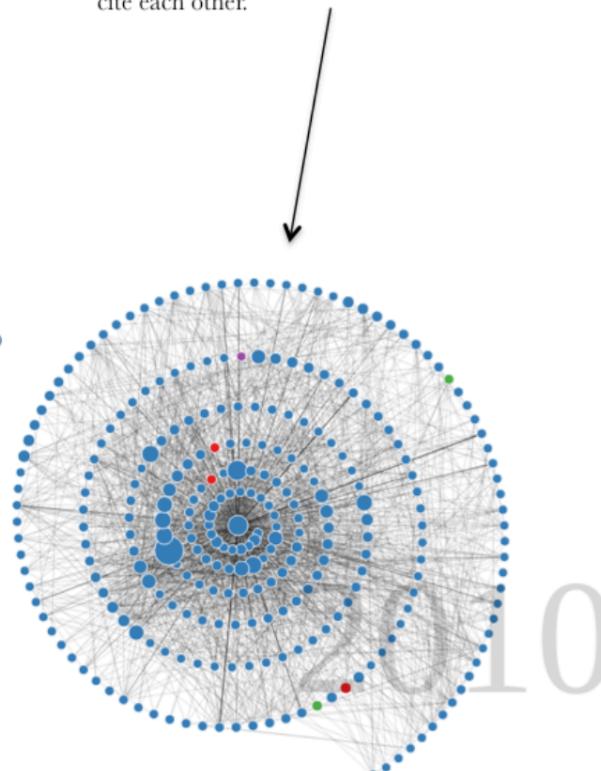
Papers in category "Medicine" (domain 6)
Papers in category "Biology" (domain 4)
Papers in category "Chemistry" (domain 5)
Papers in category "Engineering" (domain 8)
Papers in category "Material Science" (domain 12)
Papers in category "Physics" (domain 19)
Papers in category "Agriculture Science" (domain 16)
Papers in category "Social Science" (domain 22)

A denser network means that the papers that cite the central author also tend to cite each other.
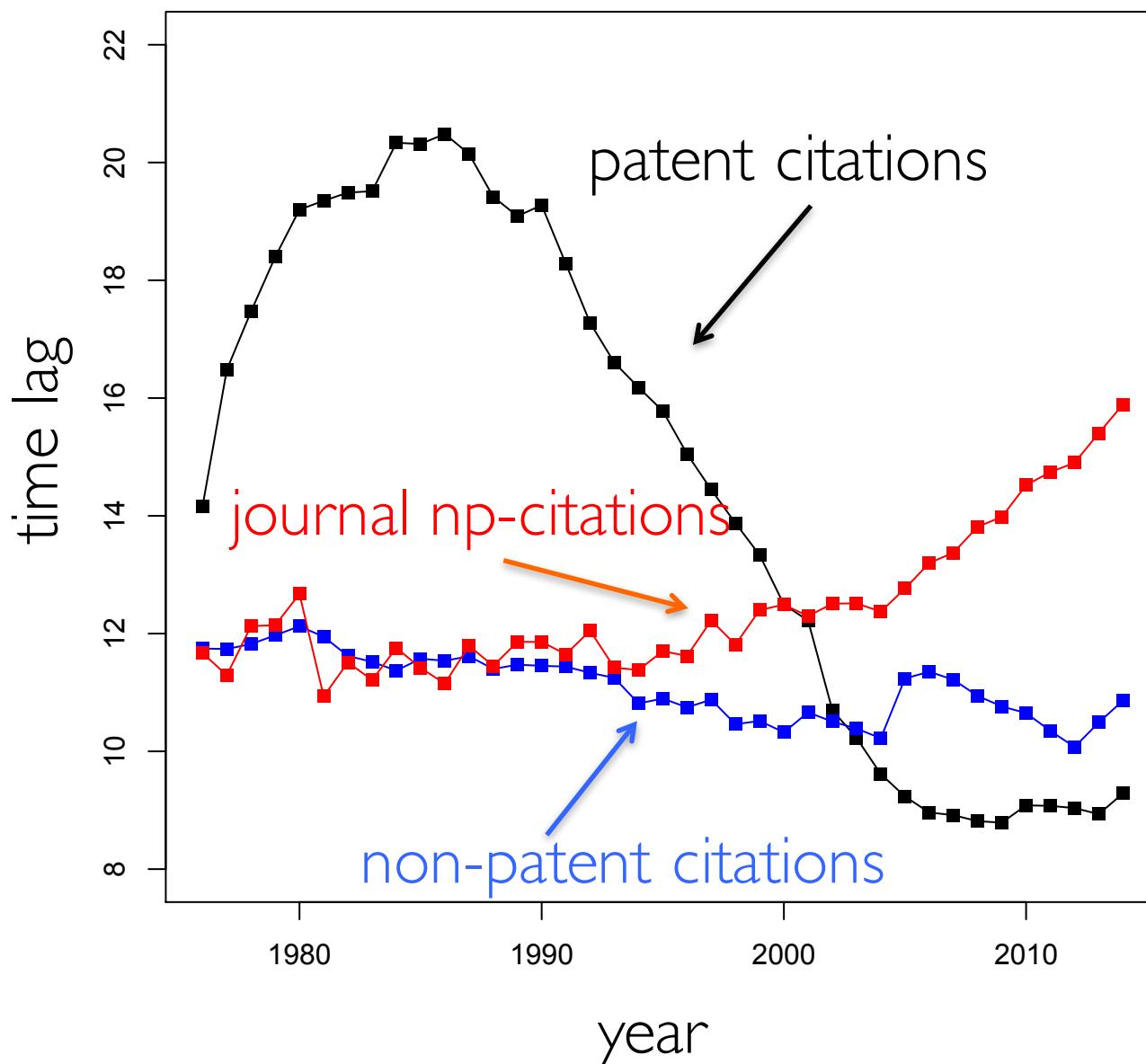
Papers in category "Biology" (domain 4)
Papers in category "Medicine" (domain 6)
Papers in category "Chemistry" (domain 5)
Papers in category "Social Science" (domain 22)

A more sparse network indicates fewer citations between papers shown in the network. This could be a result of the central scholar having impact across a wider set of academic communities.

scholar.eigenfactor.org

Funding Impact

Pew Scholars (N = 48)

Pew Alternates (N = 10)

Sum of Eigenfactor

Pew funding period

Portenoy, J. and West, JD. (2016) Combining Citation Networks and Interviews to Generate Narrative Visualizations of Scholars Careers. iConference
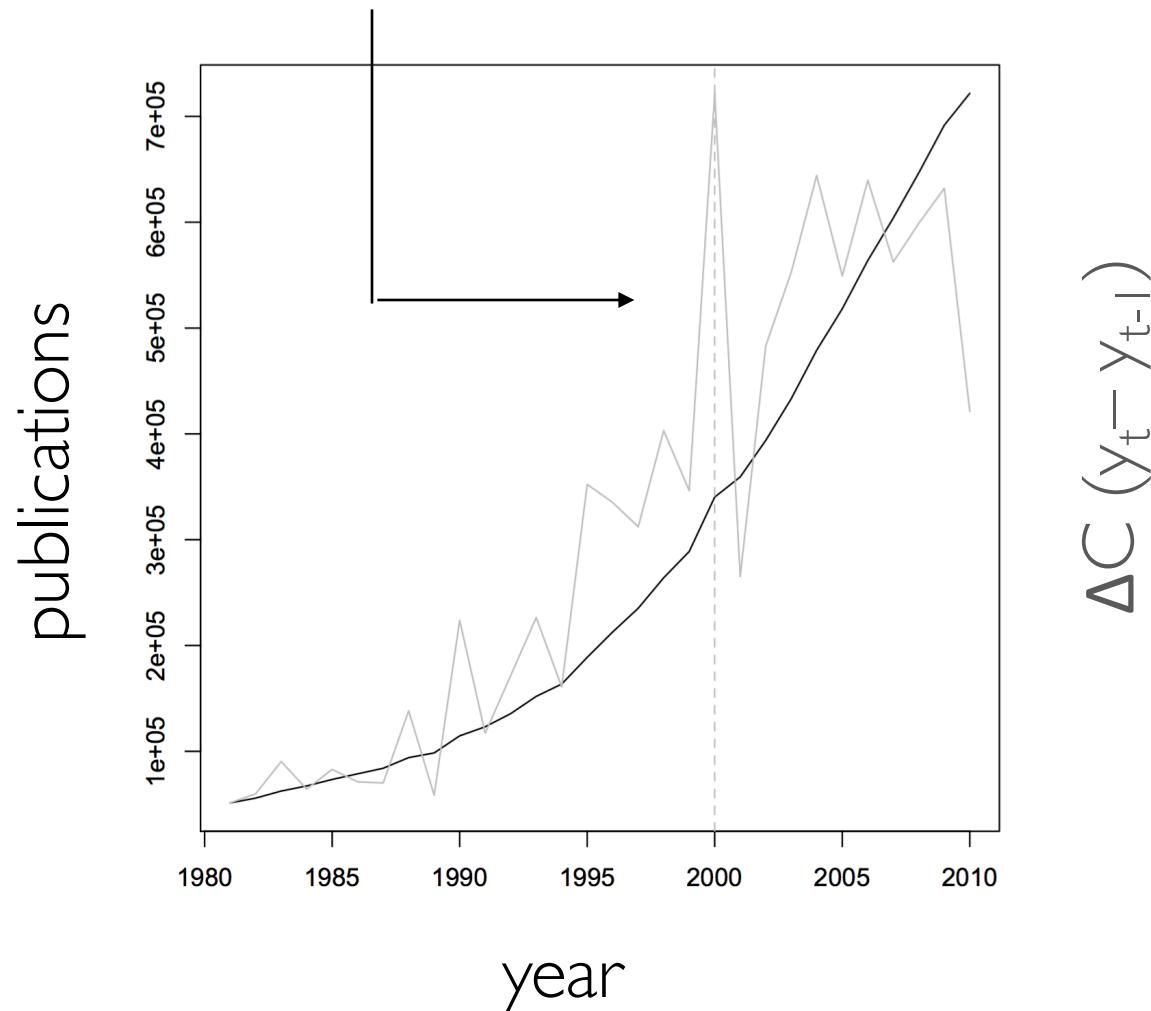
Patent Myopia

Millennium Effect

publications

$\Delta C \ (y_t - y_{t-1})$

year
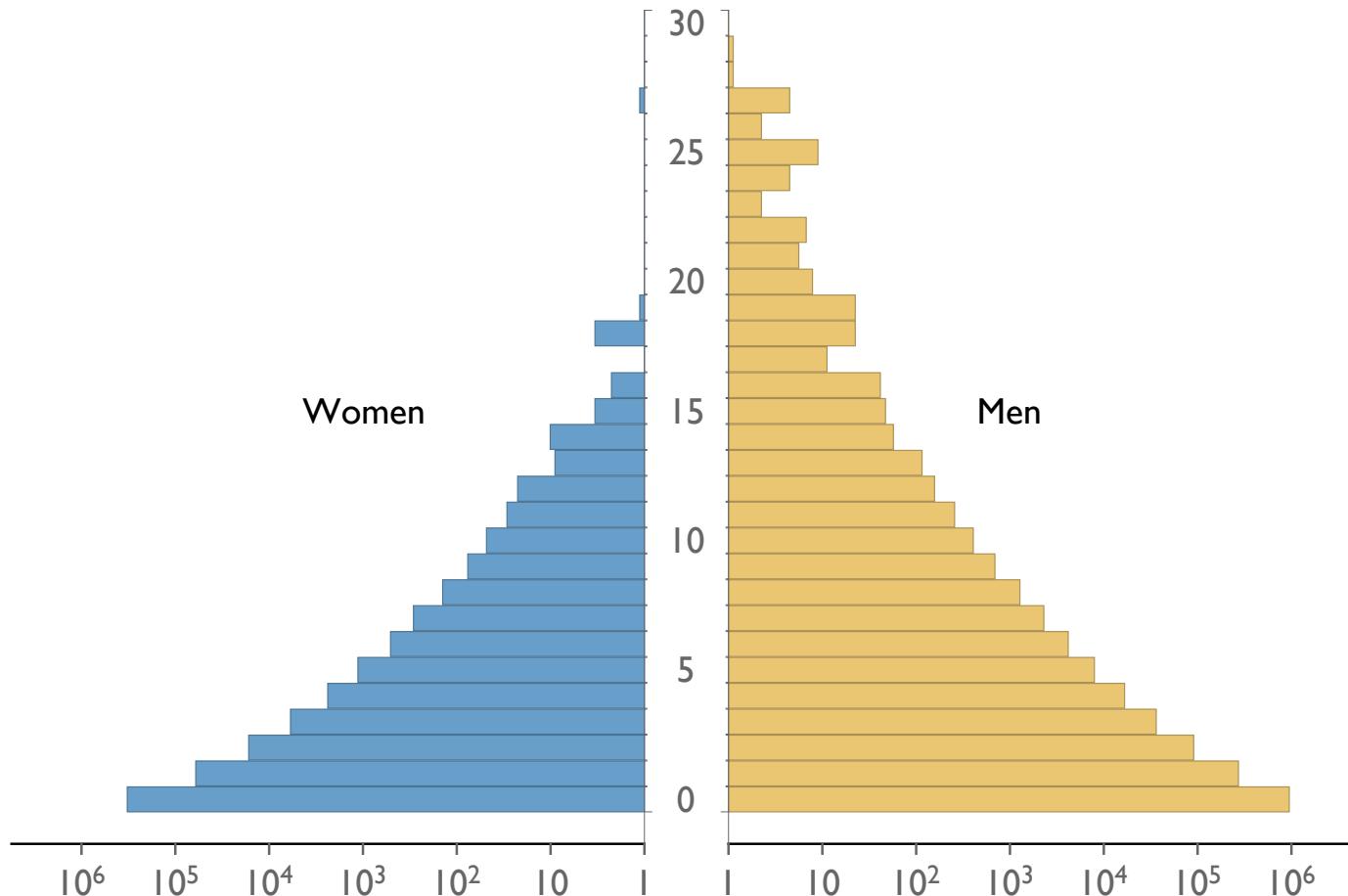
Bergstrom, CT, Jacquet, J, and West, JD (2016) The millennium effect in science. (in prep)

JW

Gender and Self Citation

Number of authorships with n self–citations

King, M et al. (2016) Men set their own cites high: Gender and self-citation across fields and over time. (in prep)
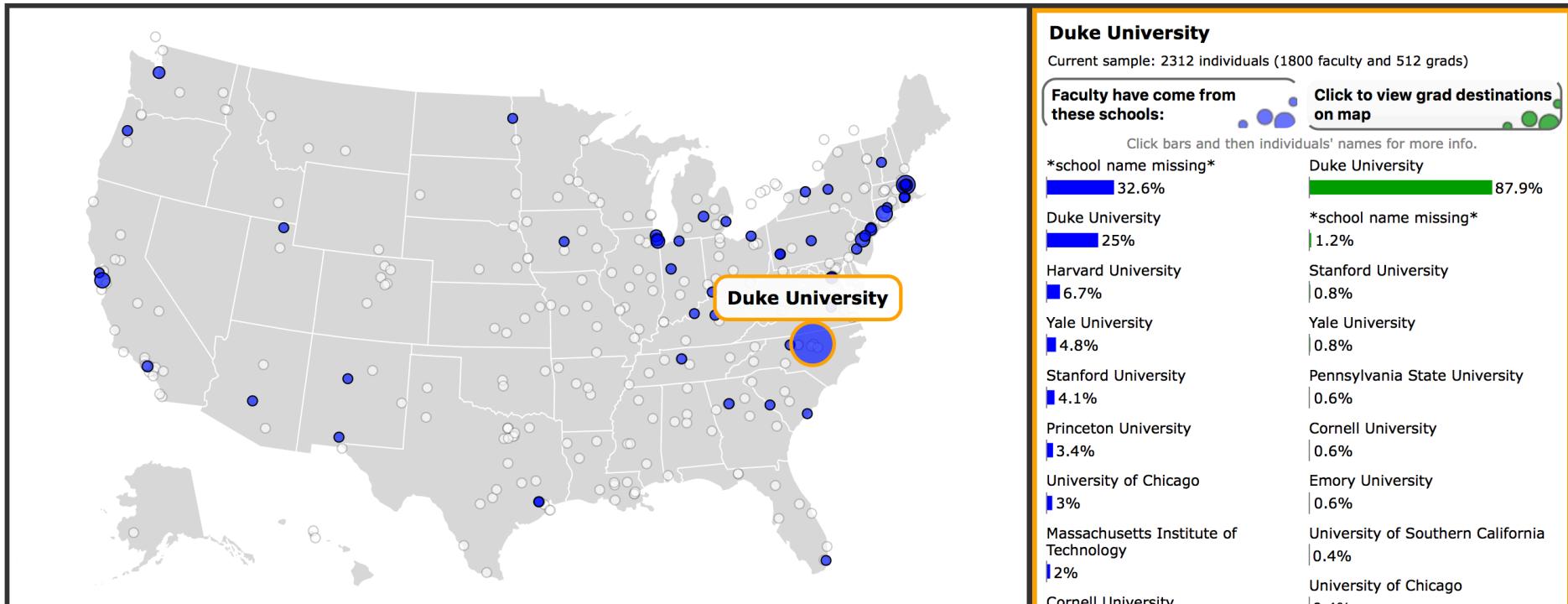
Student Migration

Aulck, L. and West, JD. (2016) Using Large-Scale, Heterogeneous Data to Examine Student Persistence and Performance: A Focus on Transfer Students. *AERA* (in review)

Images from: http://www.stowers.org/stowersreport/maps, http://www.census.gov/dataviz/visualizations/stem/stem-html/
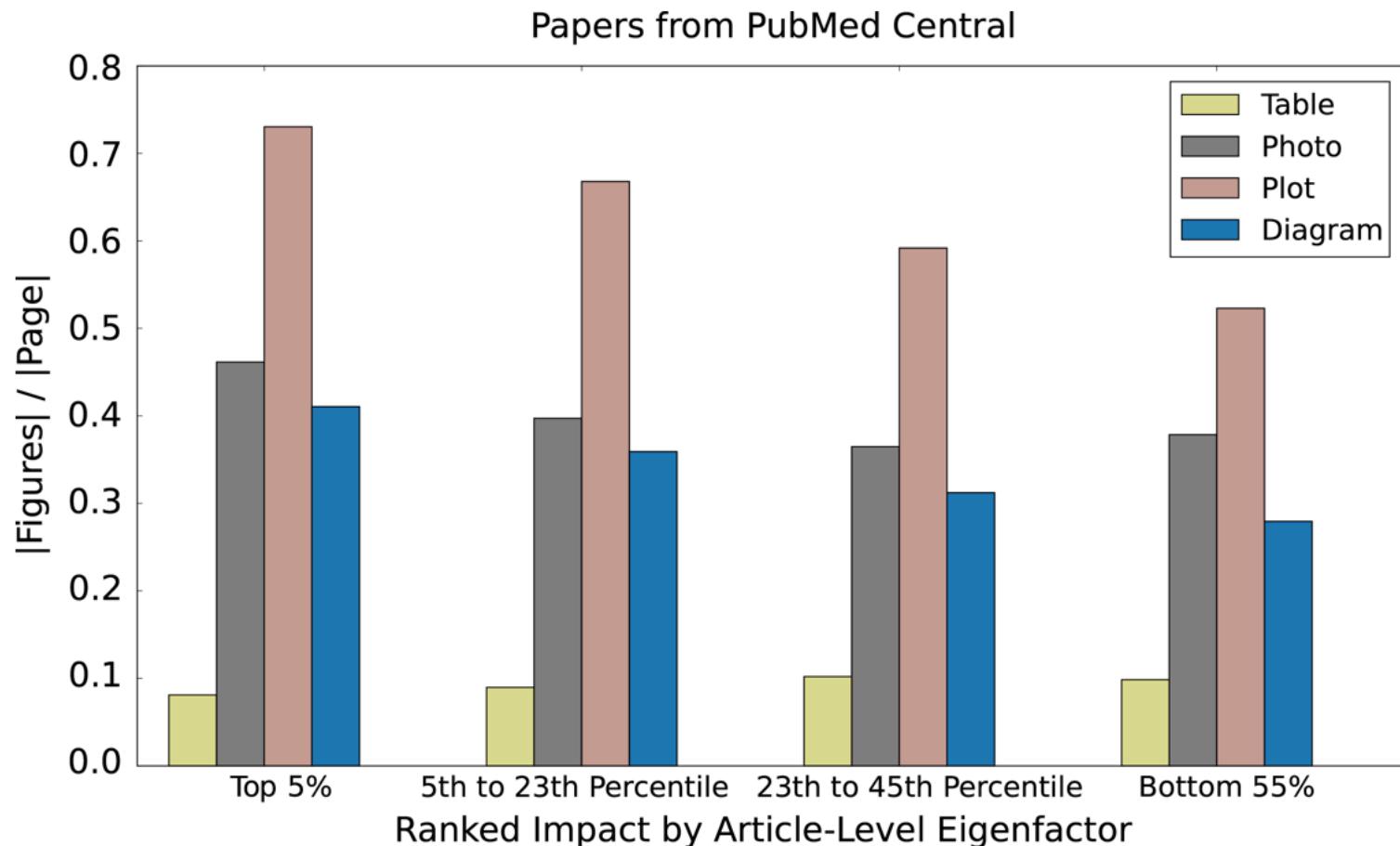
Faculty Migration

Visual Patterns in Scholarly Literature

Papers from PubMed Central

Lee, P., West, JD., and Howe, B. (2016) Viziometrics: Analyzing Visual Information in the Scientific Literature. (in prep)
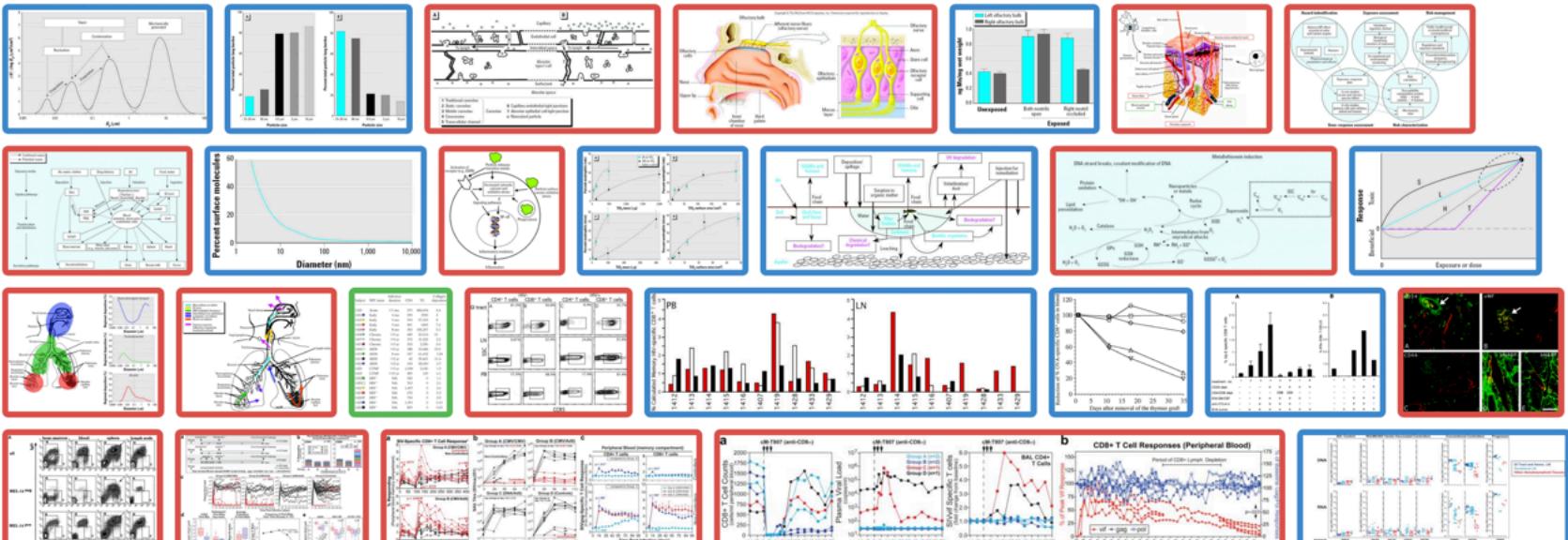
Figure-Centric Search Engine

viziometrics.org

A project of the eScience Institue at the University of Washington

WSDM CUP CHALLENGE

SIGN-UPS FOR THE WSDM CUP CHALLENGE ARE NOW CLOSED

The Graph

The Microsoft Academic Graph is a heterogeneous graph containing scientific publication records, citation relationships between publications, as well as authors, institutions, journal and conference "venues," and fields of study.

The Data
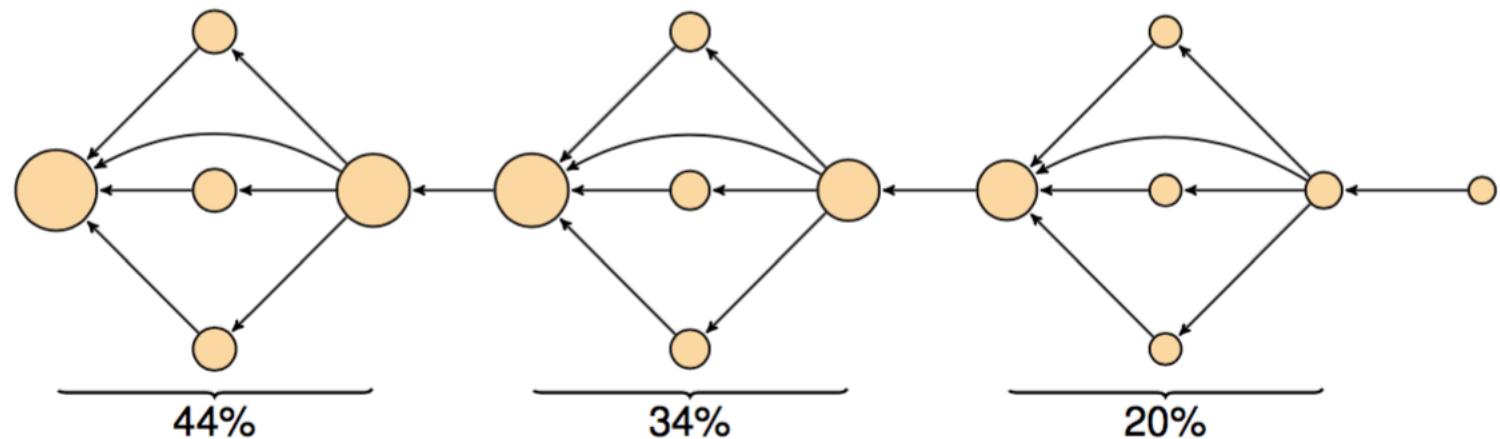
This data is available as a set of zipped text files stored in Microsoft Azure blob storage and available via HTTP. The file size (zipped) is ~30GB and may be downloaded here.

The Challenge
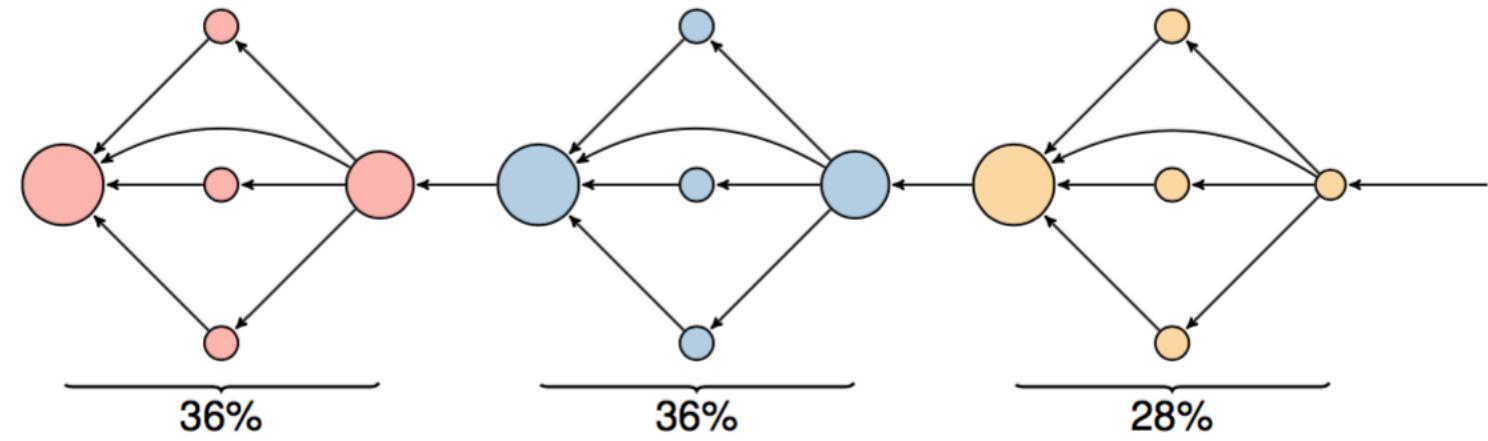
The goal of the Ranker Challenge is to assess the query-independent importance of scholarly articles, using data from the Microsoft Academic Graph.

Ranking on time-directed networks

PageRank

44% 34% 20%

ALEF

36% 36% 28%
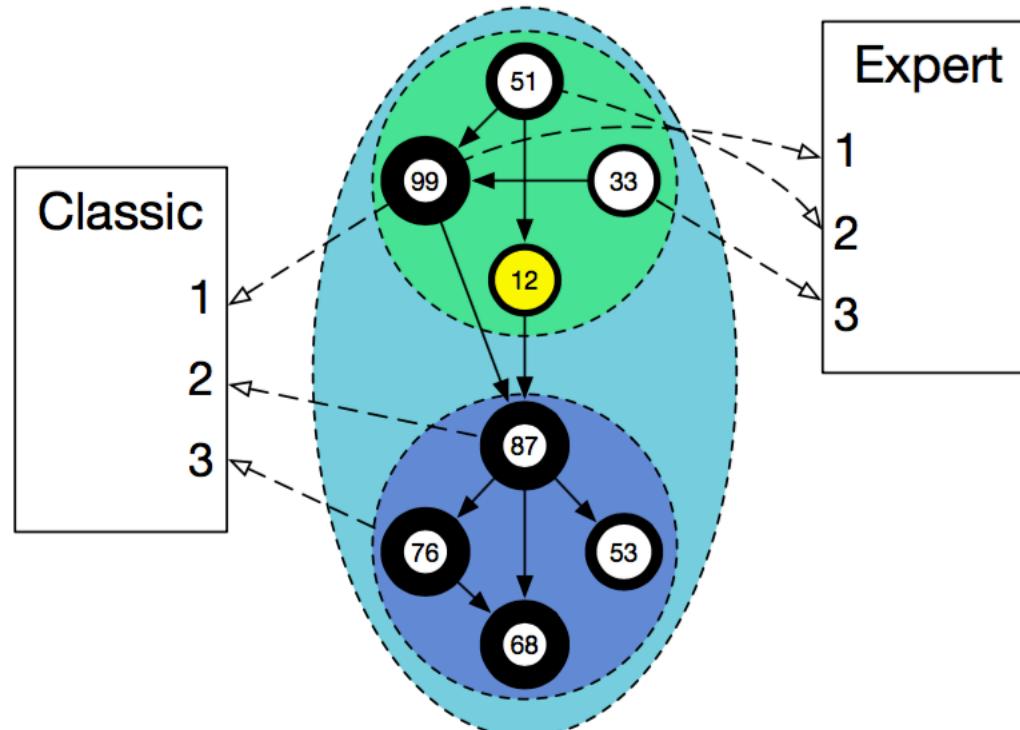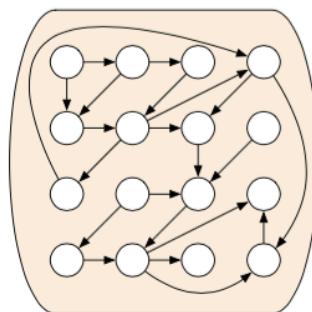
Time
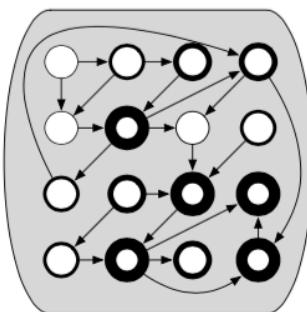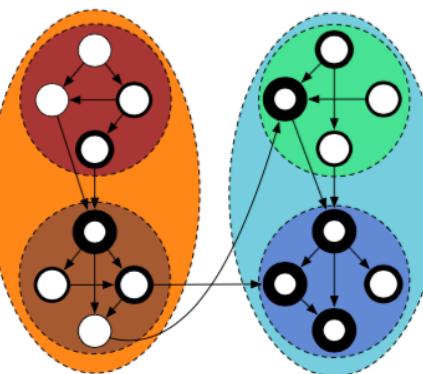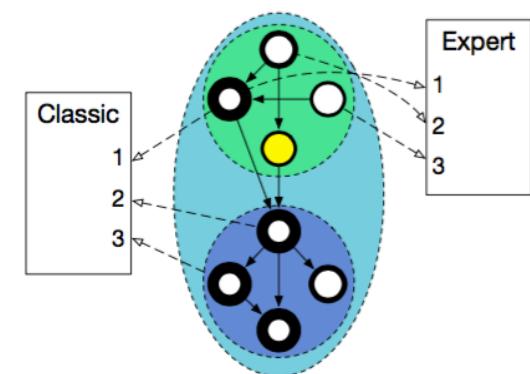
West, Wesley-Smith, Bergstrom (2016) A recommendation system based on hierarchical clustering of an article-level citation network. *IEEE, Transactions on Big Data* (in press)

oren etzioni

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Ian Wesley-Smith

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Content Filtering

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Colors Journals According to Eigenfactor Rankings

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