

Datasets in the Case Study

Outline

- [Data Subsets in Two Cases](#)
- [Case 2 Data Construction](#)

Data Subsets in Two Cases

Dataset	Case 1	Case 2
1) Scientific Research Records (Microsoft Academic Graph (MAG))	37K papers	129K papers
2) Technical Inventions (United States Patent and Trademark Office (USPTO), University Technology Transfer Office (TTO))	16K USPTO patents citing papers 6.2 invention disclosures per faculty (private data from university TTO)	56K USPTO patents citing papers
3) Science-Technology Linkages (Reliance on Science)	29K paper-patent citation linkages	141K paper-patent citation linkages
4) Researcher Profiles (MAG or private sources)	460 faculty	2,016 researchers
	Year range: 2001-2020	Year range: 2001-2020

Case 2 Data Construction

We used the following steps to compile a list of top-publishing scholars from the VIS community:

- **Step 1.** We began by examining papers published in 6 major journals and 13 conferences in the VIS field (listed in the table below) during 2001-2020. The number of papers from each venue is indicated in the parentheses in the table.
- **Step 2.** Based on data collected in Step 1, we identified 3,468 scholars who published a minimum of 10 papers in these venues.
- **Step 3.** Based on scholars in Step 2, we then collected all papers published by these scholars during 2001-2020, including those published beyond major VIS journals and conferences.
- **Step 4.** Using scholars identified in Step 2 and papers collected in Step 3, we finally identified 2,016 scholars with a minimum of 5 papers cited by patents. These 2,016 scholars constitute the main set of scholars we analyzed.

Journals	Conferences
IEEE Transactions on Visualization and Computer Graphics (3622)	IEEE Visualization (781)
IEEE Computer Graphics and Applications (1556)	Eurographics (2916)
Computer Graphics Forum (2796)	Human Factors in Computing Systems (16556)
Computers & Graphics (2406)	Advanced Visual Interfaces (974)
ACM Transactions on Graphics (2054)	IEEE Pacific Visualization Symposium (459)
Information Visualization (526)	IEEE Virtual Reality Conference (2878)
	International Conference on Computer Graphics and Interactive Techniques (13428)
	International Conference on Human-Computer Interaction (10745)
	International Symposium on Mixed and Augmented Reality (1703)
	International Symposium on Visual Computing (2258)
	User Interface Software and Technology (1833)
	Visual Analytics Science and Technology (771)
	Visualization and Data Analysis (504)