

Introducing CitedReferencesExplorer (CRExplorer):

**A program for Reference Publication Year Spectroscopy (RPYS)
with Cited References Disambiguation Standardization**





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- Since late 1990s: Working on issues in the promotion of young academics and scientists in the sciences and on quality assurance in higher education.
- Current research interests include research evaluation, peer review, bibliometrics, and altmetrics.

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- Professor for Computer Science (Database Systems) at the University for Telecommunications Leipzig (Germany)
- Since 2004: Working on various topics on data integration, e.g., duplicate detection, query strategies
- Citation analysis using different data sources, e.g., DBLP, Google Scholar

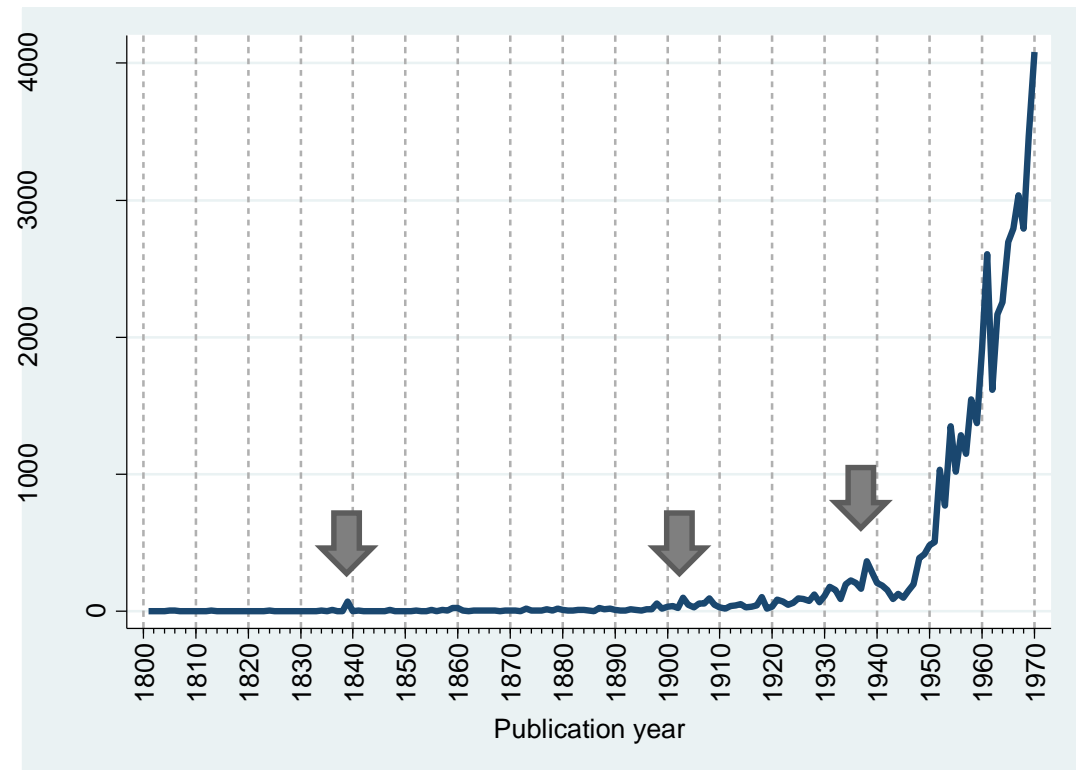


- Method to analyze historical roots based on cited references within single research fields
- RPYS is based on the analysis of the frequency with which references are cited in the publications of a specific research field in terms of the publication years of these CRs.
 - Origins show up in the form of more or less pronounced peaks mostly caused by individual publications that are cited particularly frequently
- Historical analysis of single research fields
 - Select publications of interest
 - Analyze the references cited in them (especially the referenced publication years)
 - #Citations for each CR vs. #Citations for all CRs of the same Year

Example of RPYS



- RPYS of a research field 1800 to 1970: Frequently occurring RPYs become more differentiated towards the past and mostly show up as distinct peaks in the RPY distribution curves.
- Peaks from the 19th / the first half of the 20th century are often formed by single highly cited publications
- These few publications contain the historical roots to the research field





- Java Web Start via <http://crexplorer.net>
- Input = Download WoS files
 - Full Record plus Cited Reference
 - File format: "Save to other Reference Software"
- Visualization of Number of CRs over CR Year
- Table of all CRs (incl. N_CR, N_YEAR)
- Semi-automatic clustering of equivalent CRs
 - Automatic deduplication with manual adjustment
- Merging CRs of the same cluster