

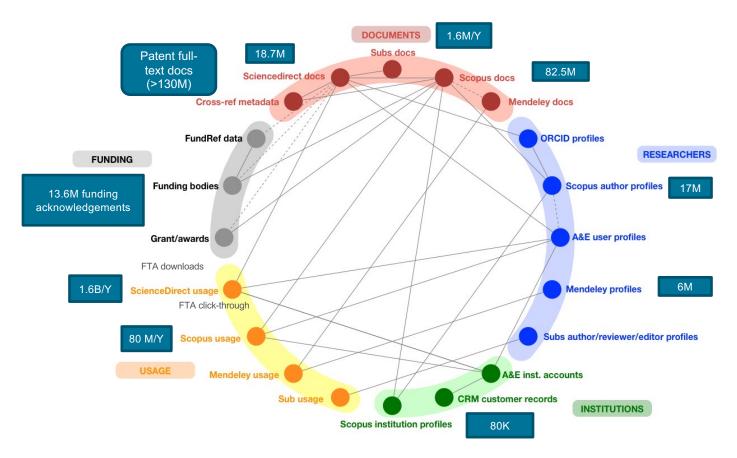
An Analysis of University-Industry and University-Government Research Collaborations in U.S. Social Science Disciplines

Daniel Calto
Director of Solution Services
Research Intelligence, Elsevier

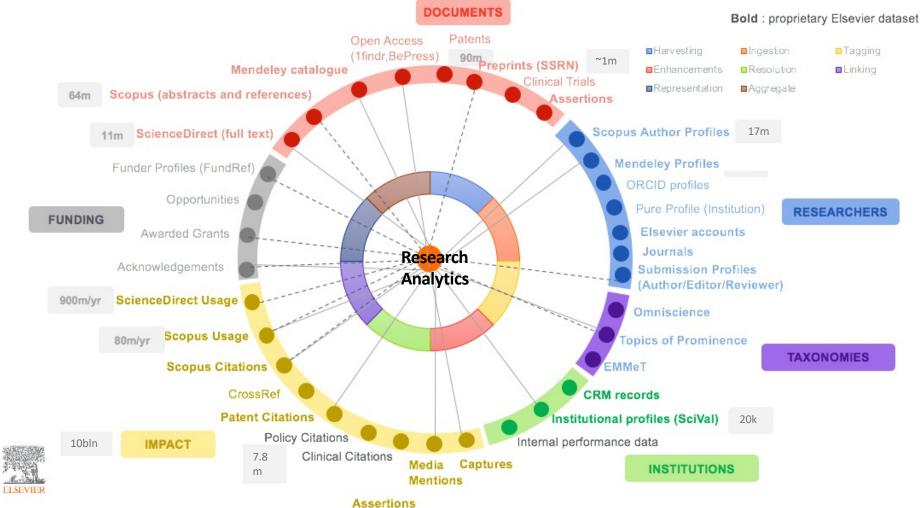
April 21-22 University of Maryland Maryland Innovation Workshop



What Data Do We Bring to the Table?



Elsevier: Linked data and analytics for professionals across industries



Grand Challenges Are Multidisciplinary and Global

Climate Change

Poverty Reduction



Aging Populations

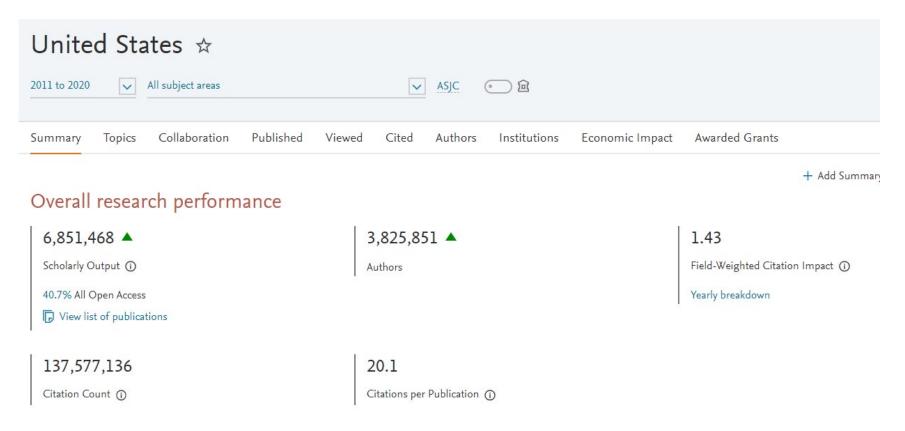
Cybersecurity

Food and Water Security

Environment

Research Output in the United States, 2011-2020





Int'l and UI Partnerships in the United States, 2011-2020



Performance indicators

Outputs in Top Citation Percentiles ①

+ Add to Reporting

Publications in top 10% most cited worldwide

■ Show as field-weighted



> Analyze in more detail

International Collaboration ①

+ Add to Reporting

Publications co-authored with Institutions in other countries/regions



Publications in Top Journal Percentiles ①

+ Add to Reporting

Publications in top 10% journals

by CiteScore Percentile



> Analyze in more detail

Academic-Corporate Collaboration ①

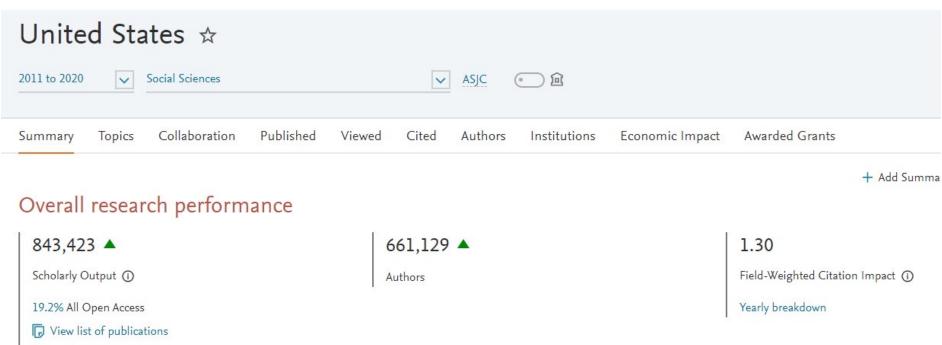
+ Add to Reporting

Publications with both academic and corporate affiliations



Research Output in the US—Social Sciences, 2011-2020







Int'l and UI Collaborations in the US—Social Sciences



Performance indicators

Outputs in Top Citation Percentiles ①

+ Add to Reporting

Publications in top 10% most cited worldwide

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International Collaboration ①

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Publications in top 10% journals

by CiteScore Percentile



> Analyze in more detail

Academic-Corporate Collaboration ①

+ Add to Reporting

Publications with both academic and corporate affiliations



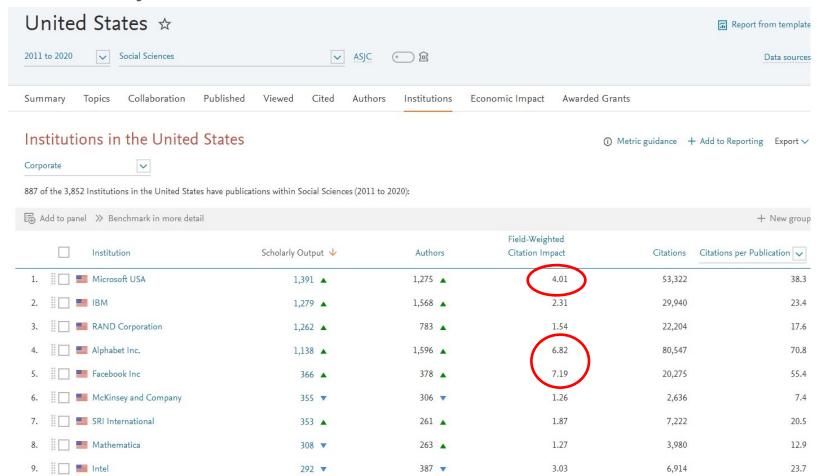
International Collaborations by the US—Social Sciences





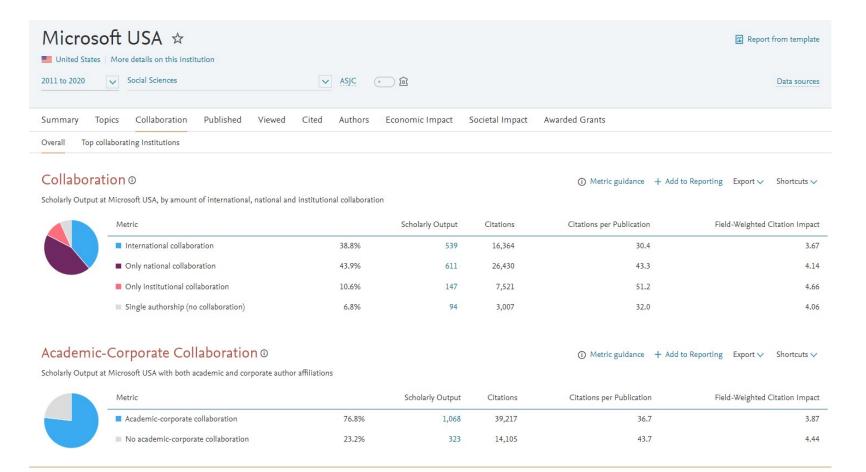
Industry Collaborations in the US—Social Sciences





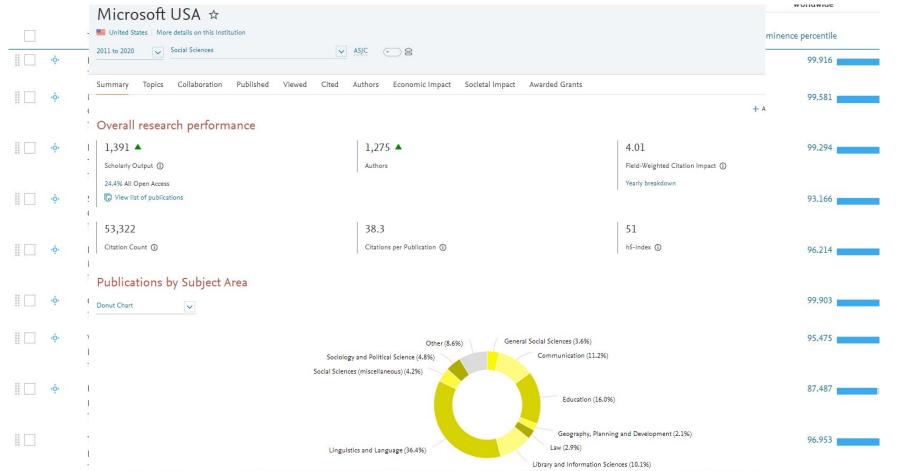
Microsoft Collaborations—Social Sciences





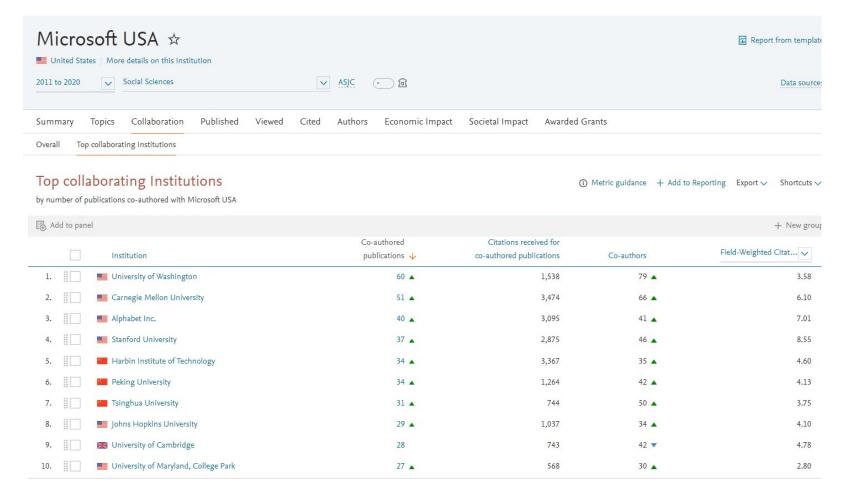
Microsoft Collaborations—Social Sciences





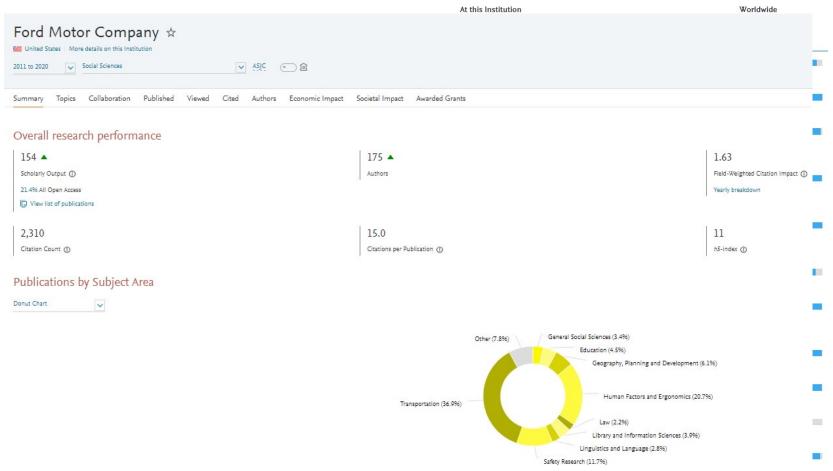
Microsoft Collaborations—Social Sciences





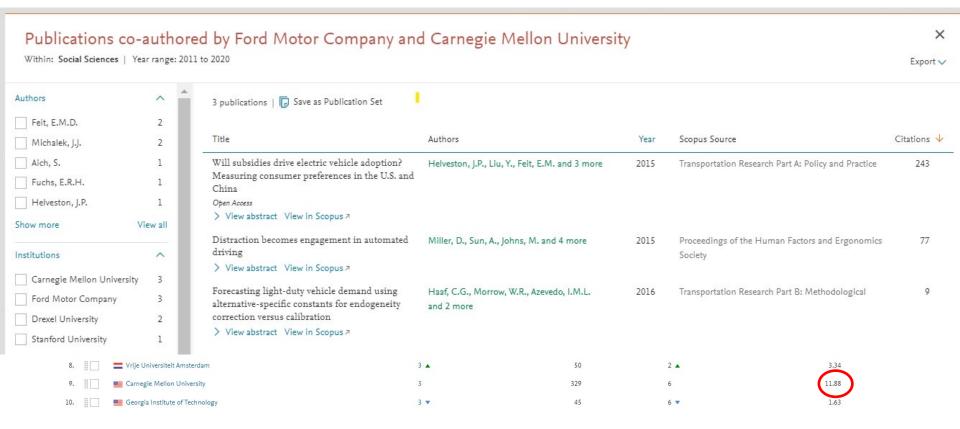
Ford Motor Collaborations—Social Sciences





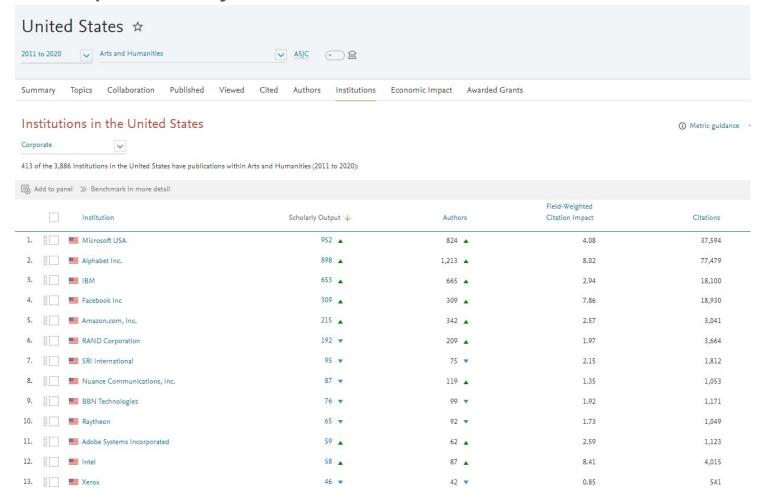
Ford Motor Collaborations—Social Sciences





US Top Industry Collaborations—Arts and Humanities







Topic T.4759 Analyze in Grants | part of Topic Cluster TC.367 - Vaccination; Vaccines; Immunization

Vaccine Hesitancy; Measles; Anti-Vaccination Movement ☆



Summary Institutions Countries & Regions Authors Scopus Sources Keyphrases Related Topics

Overall research performance



96,757

Views Count ①

43,342

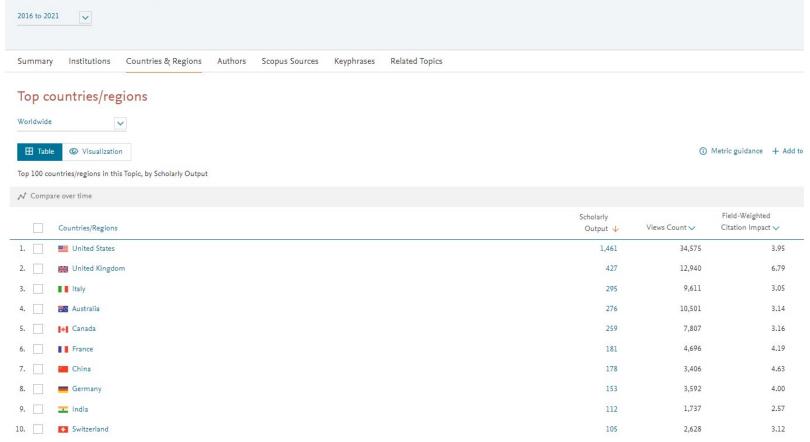
Citation Count ①

Topic Prominence percentile ①

Calculation breakdown



Vaccine Hesitancy; Measles; Anti-Vaccination Movement ☆





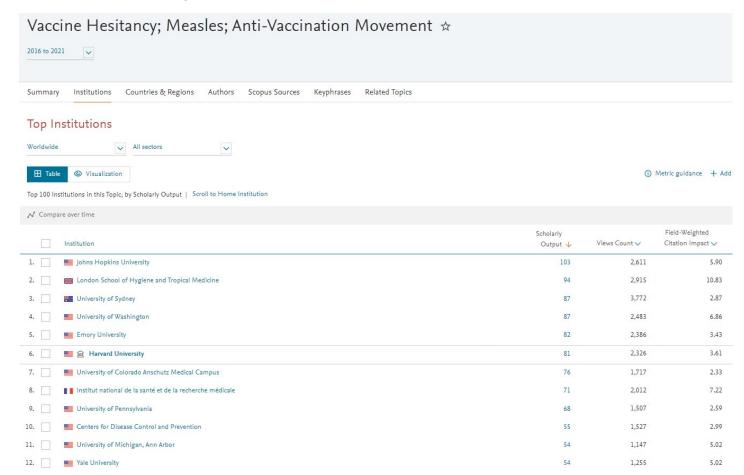
Topic Cluster character

+

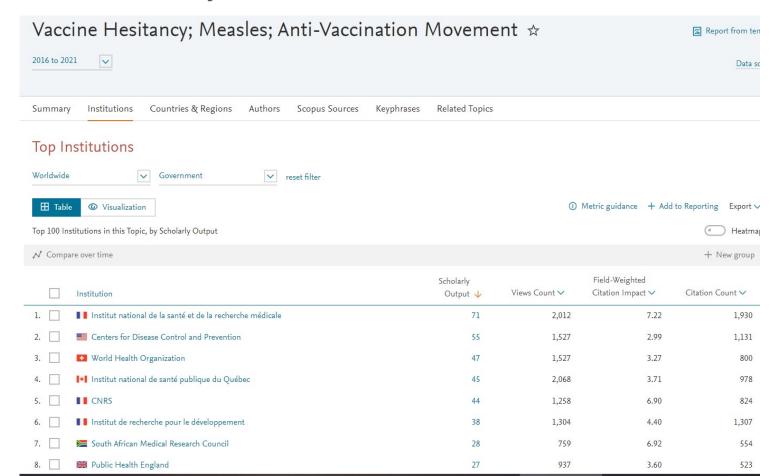
Top 50 keyphrases by relevance, based on 17,171 publications | Learn about keyphrase calculations ₹

Herd Immunity Diphtheria Pertussis Tetanus Vaccine Severe Acute Respiratory Syndrome Coronavirus 2 Whooping Cough Measles Mumps Rubella Vaccine Measles Virus BCG Vaccine Influenza Vaccination Bordetella Pertussis Peste-des-petits-ruminants Virus Willingness Seroepidemiology Immunostimulation Pandemic Ethiopia Rubella Disease Outbreaks Measles Vaccine Health Personnel Peste Des Petits Ruminants Vaccine-Preventable Diseases Immunization Measles Vaccination Diphtheria-Tetanus-acellular Pertussis Vaccines Severe Acute Respiratory Syndrome Anti-Vaccination Movement

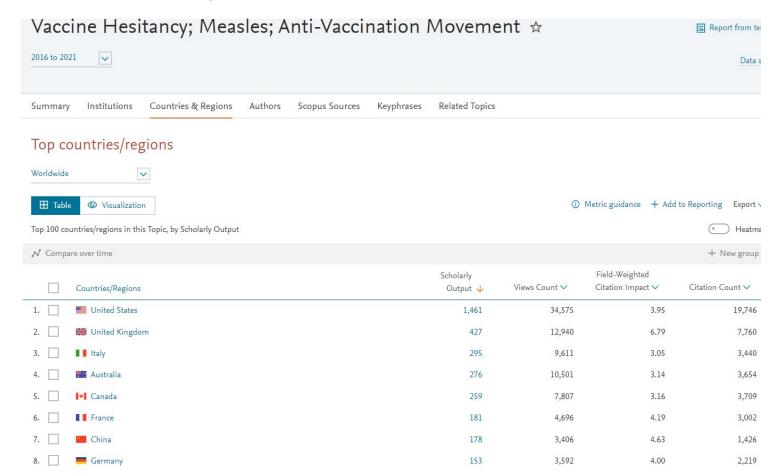






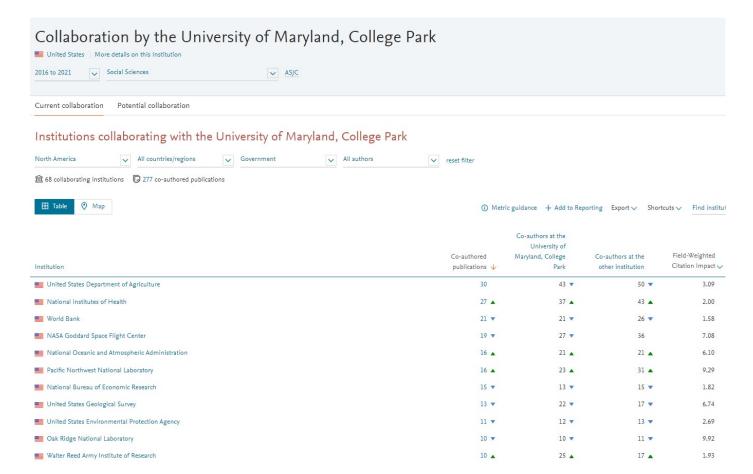






Academia and Government Collaboration—Social Sciences





Academic Collaboration—Social Sciences, 2016-2021

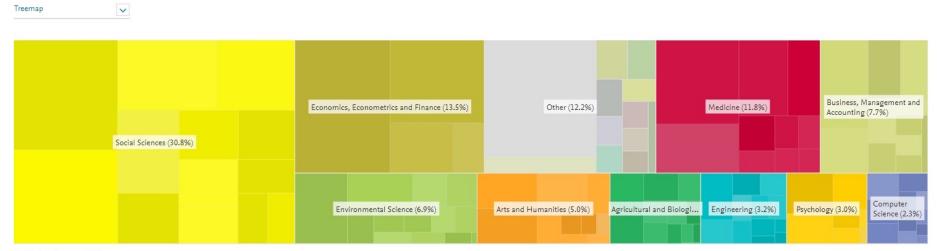


Collaboration within the AAU - Association of American Universities



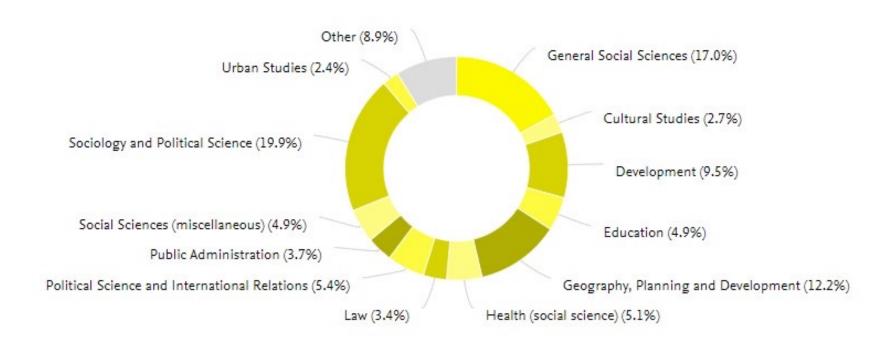


Publications by Subject Area + Add to Reporting

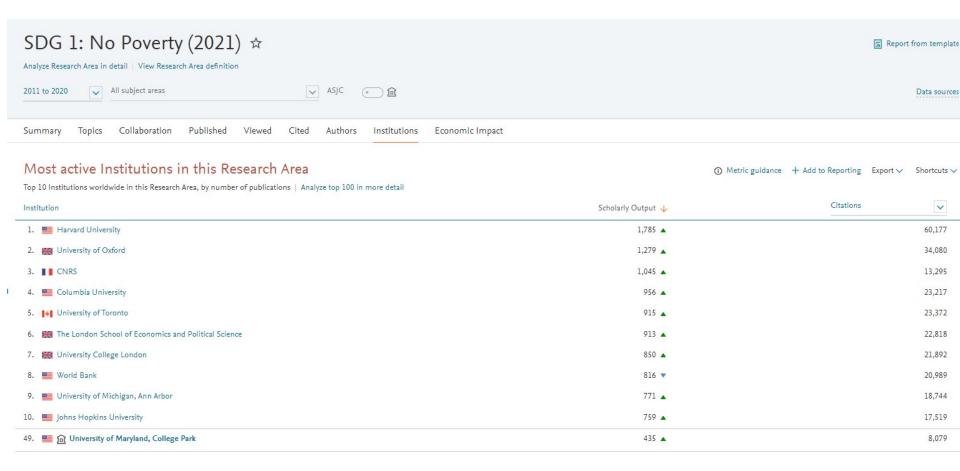


> Analyze in more detail

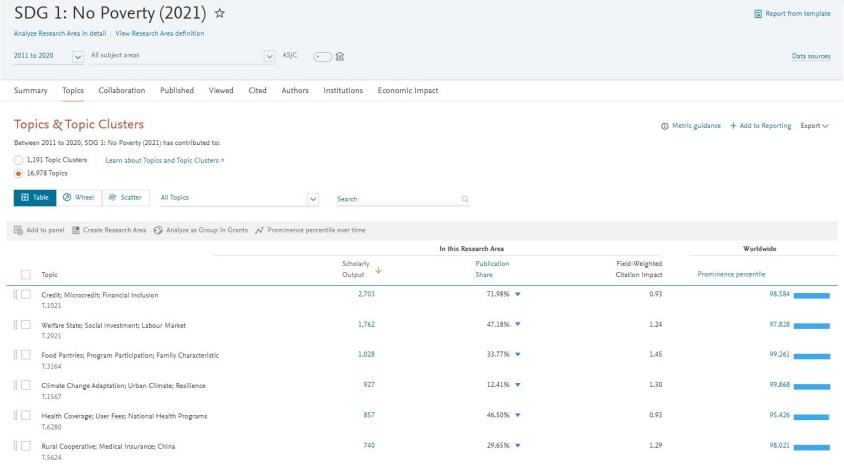










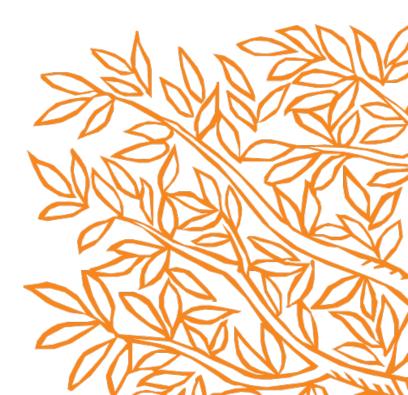




Thank You

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Assessing the Impact of Interdisciplinary Approaches in Academic-Industry Collaboration

Social Sciences, interdisciplinary early-stage research, and SSRN

Shirley Decker-Lucke

Content Director, SSRN, Elsevier SSRN.com

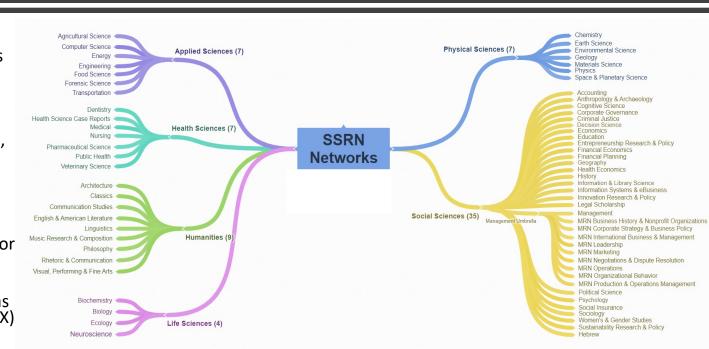
UIDP, Maryland Innovation Workshop

April 20, 2022



SSRN- grew from Social Sciences

- Founded in 1994
- Started in the Social Sciences
- Represents 70 disciplines across the full research spectrum
- Hosts preprints, proceedings, accepted papers, papers under review and working papers and abstracts of published works
- Enables scholars to post research and read research for free
- Provides detailed author metrics (views, downloads, as well as "altmetrics" via PlumX)



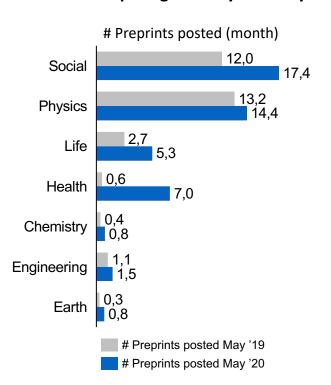
What are Preprints?

Researcher workflow AUTHOR PUBLISHED PREPRINT MANUSCRIPT ARTICLE Post Copyediting Submit to Peer Accepted Published to Preprint Edit Typesetting Journal Review by Journal Server Research Not all preprints are submitted to a journal after being posted publicly. Read, comment, cite Read, cite Research community Preprint servers Revisions

Preprints are early versions of research papers, shared ahead of formal peer review, and provide key benefits to researchers

Preprints are growing in all disciplines

Preprint growth by scholarly domain



- All scholarly domains showed growth in preprints.
- Monthly preprint postings grew by 57% May '19 to May '20.
- Preprint postings were ~50.2k per month May '20.
- The traditional preprint domains Social and Physics still comprise ~67% of preprints, but preprints are increasingly adopted in new domains, especially Life and Health, and to lesser extent Chemistry
- Support for preprints by funders, universities, publishers and infrastructure players has increased
- ~ 60 preprint servers run by societies, funders, governments, scholarly publishers, etc.

^{*} There is no single reliable source for this data, so data has been gathered by studying content on key preprint servers, and manually mapping to our categories. Please treat these numbers as indicative.

SSRN – All Disciplines

Research

- 963K papers
- 103K new papers submitted in last 12 months
- ~80% of the papers on SSRN are preprints and working papers

Downloads

24M downloads in the last 12 months

Authors

827K authors

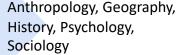
Social Science Hubs & Networks on SSRN



Research networks are specialized subject areas complete with its own taxonomies and collections of papers across the social science spectrum



Accounting, Corporate Governance



- Mental Health
- Social Justice
- Structural Inequalities

Criminal Justice, Legal Scholarship



• Implications of technology on privacy



Economics, Financial
Economics, Health Economics,
Social Insurance



Management, Corporate Strategy, Marketing, Negotiations, Operations



Political Science

 Race & Social Inequality Subject areas focused on threats to democracies



Women's & Gender Studies



Information & Library
Science, Information
Systems, Innovation
Research



Sustainability

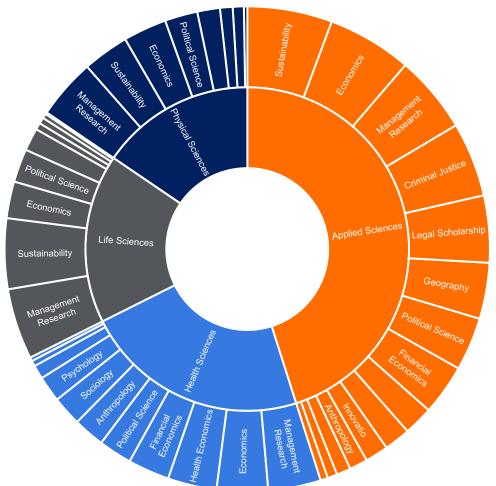
- Clean energy
 - CSR. ESG
- Food & Water Insecurity



Cognitive Science, Decision Science, Education, Entrepreneurship

Social Science research on SSRN is very interdisciplinary





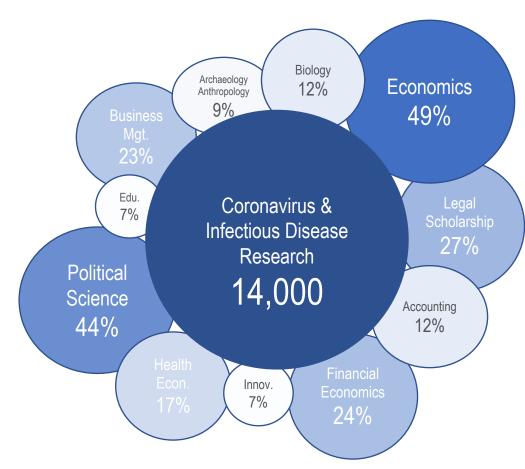
Sunburst shows the interdisciplinary overlap between Social Science subjects on SSRN (outside circle) and major disciplines (inside circle).

Interdisciplinary collaboration and Covid-19



Coronavirus & Infectious Disease Research on SSRN

- COVID-19 Research 4,800 Papers
- Infectious Disease Research 30 Papers
- Interdisciplinary Coronavirus & Infectious Disease Related Research
 9,600 Papers



Coronavirus Content on SSRN covers many subject areas





- Financial
- Global
- Inequality
- Management
- Law
- Investment
- Policy
- Economy

Social Sciences and Covid



"The term map shows a gradual shift from biomedical topics towards topics in the social and behavioural sciences"

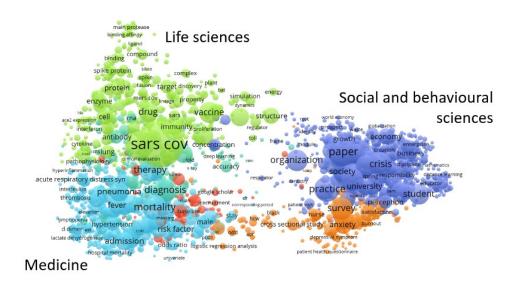


Figure 2.3: Term map showing the main topics covered by peer-reviewed COVID-19 outputs.

Our methodology identified about 150,000 peer-reviewed COVID-19 outputs that were published between January 2020 and April 2021. Figure 2.1 shows the monthly number of peer-reviewed COVID-19 outputs per broad disciplinary area. Outputs were assigned to these disciplinary areas by clustering them based on citation links [50] and by assigning the resulting clusters to disciplinary areas based on the journals in which outputs were published. As expected, a large majority of the COVID-19 outputs can be found in the biomedical and health sciences. There are also a substantial number of COVID-19 outputs in the social sciences and humanities. The physical sciences and engineering have only a small share of the COVID-19 outputs.

Scholarly communication in times of crisis: The response of the scholarly communication system to the COVID-19 pandemic. Research on Research Institute. December 2021 https://rori.figshare.com/articles/report/Scholarly communication in times of crisis The response of the scholarly communication system to the COVID-19 pandemic/17125394

Usage and social media attention are one impact evaluation metric



Correlates and Disparities of COVID-19 Vaccine Hesitancy

20 Pages • Posted: 12 Aug 2020

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The George Washington University

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Peter J. Hotez

Baylor College of Medicine

Ulrich Strych

Department of Pediatrics and Molecular Virology & Microbiology

Avi Dor

Case Western Reserve University - Department of Economics; National Bureau of Economic Research (NBER)

Erika Franklin Fowler

Wesleyan University - Government

Matt Motta

Oklahoma State University - Stillwater

Date Written: August 5, 2020

Abstract

Objective: To understand the correlates of COVID-19 vaccine hesitancy in the American public and the reasons why individuals intend to refuse a COVID-19 vaccine.





PlumX Metrics





https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3667971

Usage and social media attention are one impact evaluation metric





Health Sciences

The COVID-19 Vaccine Race: Intellectual Property, Collaboration(s), Nationalism and Misinformation

Washington University Journal of Law and Policy, Vol. 64, 2020

22 Pages • Posted: 25 Jul 2020

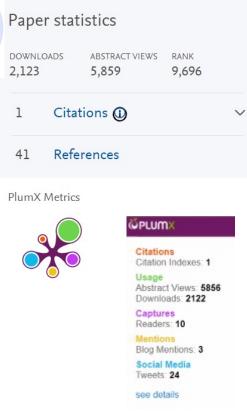
Ana Santos Rutschman

Saint Louis University - School of Law

Date Written: July 21, 2020

Abstract

Vaccines have long played a crucial role in the prevention, mitigation and eradication of infectious diseases. More than any other recent outbreak, the COVID-19 pandemic has brought the phenomenon of the vaccine race to the forefront of personal, national and global preoccupations. This symposium contribution examines the early features and takeaways of the COVID-19 vaccine race in four parts. The essay begins by situating the ongoing vaccine race into contemporary frameworks for biopharmaceutical research and development (R&D). Part II examines the role of proprietary and nationalistic modes of vaccine production and distribution, with an emphasis on the effects of patents and pre-production agreements on distributive outcomes of the COVID-19 vaccine race. Part III then turns to emerging efforts to counter overly patent-dependent and nationalistic approaches to vaccine R&D. It describes and assesses the role(s) played by the World Health Organization, as well as public-private partnerships like CEPI (the Coalition for Epidemic Preparedness Innovations) and Gavi, a Geneva-based vaccine procurement organization. Moreover, it offers a case study on COVAX, a quasi-global push and pull mechanism designed during the early stages of the COVID-19 nandemic to promote vaccine



Thank You!

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