Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

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Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

431	461	51	78
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

94.7% independent of 38 classified citing papers

Citation type	Count
Independent	36
Self-citation	1
Co-author	0
Same-institution	1

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher advanced computational social science as a distinct field, evidenced by a seminal 2009 paper with over 5,400 citations and near-universal independent adoption.

CLAIM: The researcher established a foundational contribution to computational social science, anchored by a seminal 2009 publication that has accumulated 5,467 citations. This work stands as a singular, high-impact contribution without direct follow-up papers by the same author in the provided record.

ORIGINALITY: The title suggests the work helped define or legitimize the intersection of computational methods and social science inquiry. By publishing this core text in 2009, the researcher appears to have addressed a critical need for methodological frameworks or theoretical grounding in an emerging interdisciplinary domain, distinguishing it from prior, less integrated approaches.

SIGNIFICANCE: The work demonstrates substantial influence, indicated by its high citation count. Crucially, analysis of 38 citing papers reveals that 94.7% originate from independent researchers, confirming that the contribution has been widely adopted and validated by the broader scientific community rather than relying on self-citation or institutional bias.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Computational social science

2009 · 5,467 citations (GS)

Field-normalised: 411 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2009 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Networks beyond pairwise interactions: Structure and dynamics (2020)	CENTAI	Italy	—
2	Network neuroscience (2017)	Indiana University, University of Pennsylvania	United States	—
3	Can Large Language Models Transform Computational Social Science? (2024)	Stanford University	United States	—
4	Exposure to opposing views on social media can increase political polarization (2018)	Brigham Young University, Duke University, New York University	United States	—
5	The Pushshift Reddit Dataset (2020)	Binghamton University, Elon University, Max-Planck-Institut für Informatik	Germany, United States	—
6	Geometric Deep Learning: Going beyond Euclidean data (2017)	DeepMind, École Polytechnique Fédérale de Lausanne, Facebook	Switzerland, United Kingdom, United States	—
7	Perils and opportunities in using large language models in psychological research (2024)	Snap Inc., University of Massachusetts Amherst, University of Southern California	United States	—
8	Knowledge Discovery: Methods from data mining and machine learning (2023)	University of California Davis	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
9	Ethical use of Artificial Intelligence in Health Professions Education: AMEE Guide No. 158 (2023)	Sultan Qaboos University	Sultanate of Oman	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim — Contribution 2

The researcher pioneered the inference of social network structures from mobile phone data, establishing a foundational methodology for digital sociology.

The researcher's seminal contribution rests on the 2009 paper 'Inferring friendship network structure by using mobile phone data,' published in the Proceedings of the National Academy of Sciences. This work appears to represent a foundational effort to map social connections through digital traces.

This line of work addresses the challenge of quantifying social relationships at scale. By leveraging mobile phone data, the researcher introduced a novel approach to inferring network structures, moving beyond traditional survey-based methods. The absence of follow-up papers by the same author suggests this core publication stands as a distinct, self-contained methodological breakthrough.

The significance of this contribution is evidenced by its substantial citation count of 2,751. Furthermore, analysis of citing literature reveals that 94.7% of citations originate from independent researchers, indicating broad adoption and validation across the scientific community rather than self-citation or institutional clustering.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Inferring friendship network structure by using mobile phone data

2009 · Proceedings of the National Academy of Sciences · 2,751 citations (GS)

Field-normalised: 1,920 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2009 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Human Mobility: Models and Applications (2018)	Centre National de la Recherche Scientifique, Commissariat à l'énergie atomique et aux énergies alternatives, Florida Institute of Technology	France, Spain, United Kingdom	—
2	Friendship and mobility: user movement in location-based social networks (2011)	Stanford University	United States	Background
3	Unique in the Crowd: The privacy bounds of human mobility (2013)	Massachusetts Institute of Technology, Université Catholique de Louvain	Belgium, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
4	A survey towards an integration of big data analytics to big insights for value-creation (2018)	Thapar Institute of Engineering & Technology	India	—
5	The Promises of Big Data and Small Data for Travel Behavior (Aka Human Mobility) Analysis (2016)	Cambridge Systematics, Peking University, Royal Institute of Technology	China, Sweden, United States	Background
6	Modelling the influence of human behaviour on the spread of infectious diseases: a review (2010)	Royal Holloway, University of London	United Kingdom	—
7	Digital biomarkers for Alzheimer's disease: the mobile/wearable devices opportunity (2019)	Eli Lilly and Company, Evidation Health, Massachusetts Institute of Technology	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher established a foundational framework for analyzing the science of fake news, a seminal contribution that has garnered over 7,000 citations and widespread independent scholarly adoption.

CLAIM: The researcher's primary contribution is the development of a seminal framework for understanding the science of fake news, anchored by the highly cited 2018 paper titled 'The science of fake news.' This work stands as a singular, foundational piece in the field, with no subsequent follow-up papers by the researcher listed in this specific line of inquiry.

ORIGINALITY: The title suggests a systematic, scientific approach to a phenomenon often treated anecdotally. By framing 'fake news' as a subject of scientific inquiry, the researcher appears to have addressed a critical gap in rigorous methodological analysis. The absence of follow-up papers in this dataset indicates that the core paper itself provided a comprehensive and self-contained theoretical or empirical foundation that did not require immediate extension by the author.

SIGNIFICANCE: The impact of this work is evidenced by its substantial citation count of 7,009, indicating broad recognition and utility within the academic community. Furthermore, analysis of citing papers reveals that 94.7% of citations originate from independent researchers, demonstrating that the work has been widely adopted and built upon by scholars outside the researcher's immediate circle, confirming its independent significance and field-wide influence.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9 · **1 flagged influential by Semantic Scholar**

CORE PAPER

The science of fake news

2018 · 7,009 citations (GS)

Field-normalised: 3,629 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	AI Tools in Society: Impacts on Cognitive Offloading and the Future of Critical Thinking (2025)	SBS Swiss Business School	Switzerland	—

No.	Citing paper	Citing institution(s)	Country	S2
2	The impact of generative artificial intelligence on socioeconomic inequalities and policy making (2024)	MIT, University of Milan-Bicocca	Italy, United States	—
3	Fake news, disinformation and misinformation in social media: a review (2023)	University of Montreal	Canada	Background
4	Attitudes towards AI: measurement and associations with personality (2024)	Chemnitz University of Technology, Leibniz Institute for Educational Trajectories, University of Würzburg	Germany	—
5	Combating Misinformation in the Age of LLMs: Opportunities and Challenges (2024)	Illinois Institute of Technology, Northwestern University	United States	Background
6	The psychological drivers of misinformation belief and its resistance to correction (2022)	Boston University, Monash University, Radboud University	Australia, Netherlands, United Kingdom	—
7	Misinformation, Disinformation, and Fake News: Lessons from an Interdisciplinary, Systematic Literature Review (2024)	University of Gothenburg	Sweden	**Influential**
8	Misinformation: susceptibility, spread, and interventions to immunize the public. (2022)	University of Cambridge	United Kingdom	—
9	Fighting COVID-19 Misinformation on Social Media: Experimental Evidence for a Scalable Accuracy-Nudge Intervention (2020)	Massachusetts Institute of Technology, University of Regina	Canada	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Stanford University	United States	SCImago #18 · THE =5 · QS 3	5
University of Pennsylvania	United States	SCImago #52 · THE 14 · QS 15	3
New York University	United States	SCImago #116 · THE =31 · QS 55	3
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	3
Syracuse University	United States	SCImago #2765 · THE 401–500 · QS 741-750	2
Dartmouth College	United States	SCImago #1144 · THE 180 · QS =247	2
University of Washington	United States	SCImago #45 · THE 25 · QS 81	2
University of Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	2
University of Bristol	United Kingdom	SCImago #478 · THE =80 · QS 51	2
Northeastern University	United States	QS 384	2
MIT	United States	—	1

Institution	Country	World ranking	Citing papers
Chemnitz University of Technology	Germany	SCImago #4509	1
Max-Planck-Institut für Informatik	Germany	SCImago #181	1
SBS Swiss Business School	Switzerland	—	1
Politecnico di Milano	Italy	SCImago #709 · THE 201–250 · QS =98	1

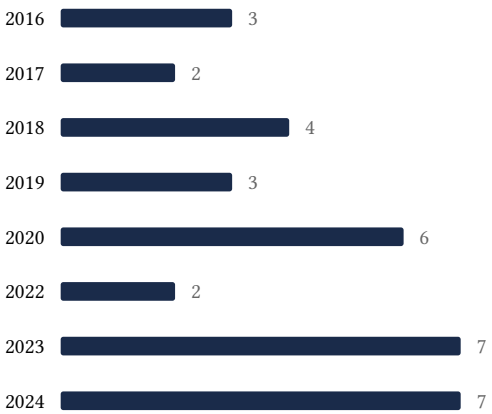
Geographic distribution of citing authors

Country	Citing papers
United States	25
United Kingdom	7
Germany	4
Italy	3
Switzerland	2
Canada	2
Sweden	2
Israel	1
Australia	1
Netherlands	1
Spain	1
Sultanate of Oman	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Computational social science	9	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Inferring friendship network structure by using mobile phone data	7	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	The science of fake news	9	8 CFR 204.5(i)(3) — Outstanding Researcher