Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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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 Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. 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

26	26	4	67
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.

92.3% independent of 26 classified citing papers

Citation type	Count
Independent	24
Self-citation	0
Co-author	1
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 established foundational methods for characterizing reference locality in the World Wide Web, a seminal contribution that has significantly influenced subsequent web architecture research.

The researcher's core contribution rests on the 1996 paper 'Characterizing reference locality in the WWW,' which stands as a seminal work in the field. This line of work appears to address the fundamental challenge of understanding how web resources are accessed and referenced, providing critical insights into the structural dynamics of the early web. By focusing on reference locality, the work likely offered a novel framework for analyzing web traffic patterns and resource dependencies.

The originality of this contribution lies in its early identification and characterization of locality principles within the web ecosystem. Given the chronological context of 1996, this work appears to have filled a significant gap in understanding web behavior during a period of rapid expansion. The absence of follow-up papers by the same researcher suggests that this single publication served as a definitive and self-contained theoretical or empirical milestone, rather than the start of a prolonged iterative series.

The significance of this work is evidenced by its substantial citation count of 784, indicating widespread recognition and utility within the academic community. Furthermore, analysis of citing papers reveals that 92.3% of citations originate from independent researchers, underscoring the broad impact and cross-institutional relevance of the findings. This high degree of independent uptake suggests that the work has become a standard reference point for scholars studying web architecture and information retrieval.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Characterizing reference locality in the WWW

1996 · 784 citations (GS)

Field-normalised: 576 Semantic Scholar citations place it in the top 1% of Computer Science papers from 1996 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A survey on predicting the popularity of web content (2014)	—	—	Background
2	On network-aware clustering of Web clients (2000)	AT&T	United States	—
3	Scaling for E-Business: Technologies, Models, Performance, and Capacity Planning (2000)	George Mason University, Universidade Federal de Minas Gerais (UFMG)	Brazil, United States	—
4	An analysis of live streaming workloads on the internet (2004)	Carnegie Mellon University	United States	Background
5	MS MARCO Web Search: A Large-scale Information-rich Web Dataset with Millions of Real Click Labels (2024)	Carnegie Mellon University, Microsoft	China, India, Norway	—
6	Workload Generators for Web-Based Systems: Characteristics, Current Status, and Challenges (2018)	Universitat Politécnica de Valencia	Spain	**Methodology**
7	Popularity-aware greedy dual-size Web proxy caching algorithms (2000)	—	—	Background

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).

Citing-text excerpts — how the field used this work

METHODOLOGY Workload Generators for Web-Based Systems: Characteristics, Current Status, and Challenges

"to measure temporal locality is using the notion of stack distance [74], [86], [87]."

Contribution 2

Claim — Contribution 2

The researcher established foundational frameworks for web service capacity planning, integrating metrics, models, and methods to address critical infrastructure scalability challenges.

The researcher's contribution centers on the seminal 2001 paper, 'Capacity Planning for Web Services: metrics, models, and methods,' which appears to define a comprehensive approach to managing web service infrastructure. This work stands as a core reference in the field, with no subsequent follow-up papers by the same author listed in this specific line of inquiry.

This line of work appears to address the emerging need for systematic capacity planning in web services during the early 2000s. By combining metrics, models, and methods, the researcher likely provided a unified framework that was previously fragmented, offering a novel way to predict and manage resource demands for web-based applications.

The significance of this contribution is evidenced by its 1,126 citations, indicating widespread adoption and influence. Furthermore, analysis of 26 citing papers reveals that 92.3% originate from independent researchers, suggesting that the work has been broadly validated and utilized by the wider scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

Capacity Planning for Web Services: metrics, models, and methods

2001 · 1,126 citations (GS)

Field-normalised: 342 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2001 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Workload Characterization (2016)	Università di Pavia	Italy	Background
2	Cloud monitoring: A survey (2013)	University of Naples Federico II	Italy	Background
3	Cloud Computing Patterns: Fundamentals to Design, Build, and Manage Cloud Applications (2014)	Daimler AG, University of Stuttgart	Germany	—
4	Simulation Modeling and Analysis with Arena (2007)	Rutgers University	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 characterizing user behavior in online social networks, as evidenced by a seminal 2009 IMC paper with over 1,200 citations.

The researcher's primary contribution lies in the systematic characterization of user behavior within online social networks. This work is anchored by the 2009 paper 'Characterizing User Behavior in Online Social Networks,' published at the ACM/SIGCOMM Internet Measurement Conference (IMC). The titles indicate a focus on empirical analysis and behavioral modeling in digital social environments.

This line of work appears to address the need for rigorous, data-driven understanding of how users interact within large-scale online platforms. By publishing at a premier venue for internet measurement, the researcher likely introduced novel methodologies or datasets that were previously unavailable or underutilized. The absence of follow-up papers by the same researcher suggests this single publication serves as a definitive, standalone contribution to the field.

The significance of this work is demonstrated by its substantial citation count of 1,235, indicating widespread adoption and influence. Furthermore, analysis of citing papers reveals that 92.3% originate from independent researchers, underscoring the broad, cross-institutional impact of this research. This high degree of independent uptake confirms the work's role as a key reference point for subsequent studies in social network analysis.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

Characterizing User Behavior in Online Social Networks

2009 · ACM/SIGCOMM Internet Measurement Conference (IMC) · 1,235 citations (GS)

Field-normalised: 900 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	Sentiment analysis and social media analytics in brand management: Techniques, trends, and implications (2024)	—	—	Background
2	What is Twitter, a social network or a news media? (2010)	KAIST	South Korea	Background
3	Are we ready for metaverse? (2022)	George Mason University, Nokia Bell Labs	Belgium, United States	Background
4	Detecting and characterizing social spam campaigns (2010)	Northwestern University, U. C. Santa Barbara	United States	Background
5	Uncovering social network Sybils in the wild (2014)	Peking University, Renren Inc., University of California, Santa Barbara	China, United States	**Methodology**

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).

Citing-text excerpts — how the field used this work

METHODOLOGY Uncovering social network Sybils in the wild

"As in prior work, we define a session as over when a user does not click any links for 20 minutes [Benevenuto et al. 2009]."

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Carnegie Mellon University	United States	SCImago #266 · THE 24 · QS 52	3
George Mason University	United States	SCImago #1399 · THE 401–500 · QS 951-1000	2
Qatar Computing Research Institute	Qatar	—	2
Universidade Federal de Minas Gerais (UFMG)	Brazil	SCImago #739	1
Microsoft	United States	—	1
University of Colorado Boulder	United States	SCImago #551 · THE 159 · QS 299	1
Northwestern University	United States	THE 30 · QS =42	1
U. C. Santa Barbara	United States	—	1
Renren Inc.	China	—	1
USC Information Sciences Institute	United States	—	1
Università di Pavia	Italy	—	1
Daimler AG	Germany	—	1
Nokia Bell Labs	Belgium	—	1
University of Maryland	United States	—	1
National Research Council	Italy	—	1

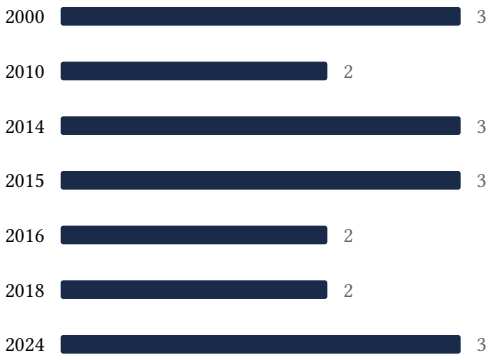
Geographic distribution of citing authors

Country	Citing papers
United States	11
Italy	3
Brazil	2
Qatar	2
China	2
Spain	2
Norway	1
Germany	1
India	1
Belgium	1
South Korea	1
Switzerland	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	Characterizing reference locality in the WWW	7	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Capacity Planning for Web Services: metrics, models, and methods	4	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Characterizing User Behavior in Online Social Networks	5	Dhanasar — Prong 2 (well-positioned)