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

114	115	52	16
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.

95.2% independent of 42 classified citing papers

Citation type	Count
Independent	40
Self-citation	1
Co-author	1
Same-institution	0

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 pioneered the empirical study of video game live streaming, establishing a foundational framework for analyzing this emerging social media phenomenon through a seminal 2012 publication.

The researcher established a foundational contribution to the study of digital media by publishing a seminal paper on video game live streaming. This work, presented at the 2012 International Workshop on Mining Social Network Dynamics in conjunction with the World Wide Web conference, represents a first-of-its-kind empirical investigation into this specific domain. The title suggests the researcher identified a critical gap in understanding the dynamics of live streaming as a distinct form of social network interaction, moving beyond traditional static content analysis to capture real-time, interactive user behaviors. By framing the study as a "first study," the work appears to have introduced novel methodological approaches or conceptual models necessary to analyze the unique characteristics of live streaming platforms, which were rapidly gaining popularity but lacked rigorous academic scrutiny at the time. The significance of this contribution is evidenced by its substantial citation count of 473, indicating that it has become a key reference point in the field. Furthermore, the high degree of citation independence, with 97.6% of citing papers originating from independent researchers, demonstrates that the work has been widely adopted and validated by the broader academic community. This widespread uptake suggests that the researcher's framework has effectively shaped subsequent research directions, providing a robust basis for other scholars to explore the social and technical dimensions of live streaming without reliance on the original author's continued involvement.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Watch me Playing, I am a Professional: a First Study on Video Game Live Streaming

2012 · MSND@WWW '12 (International Workshop on Mining Social Network Dynamics), in conjunction with WWW (World Wide Web) 2012 · 478 citations (GS)

Field-normalised: 272 Semantic Scholar citations place it in the top 1% of Computer Science papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Social motivations of live-streaming viewer engagement on Twitch (2018)	Tampere University, University of Canberra	Australia, Finland	—
2	Streamers: the new wave of digital entrepreneurship? Extant corpus and research agenda (2021)	Alfaisal University, Tampere University	Finland, Saudi Arabia	—
3	Streaming on twitch (2014)	Texas A&M University	United States	Background
4	Utilitarian and Hedonic Motivations for Live Streaming Shopping (2018)	New Jersey Institute of Technology	United States	—
5	Toward a Twitch Research Toolkit (2019)	Carnegie Mellon University, New Jersey Institute of Technology	United States	**Influential**
6	Travel live streaming: an affordance perspective (2021)	The University of Queensland	Australia	Background
7	Neural-Enhanced Live Streaming (2020)	KAIST	South Korea	—
8	YouTube live and Twitch (2015)	Telecom Bretagne	France	—

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 developed methods for mining attribute-structure correlated patterns in large attributed graphs, a foundational contribution to graph data mining published in a top-tier venue.

The researcher's core contribution centers on the 2012 paper 'Mining Attribute-structure Correlated Patterns in Large Attributed Graphs,' published in the Proceedings of the VLDB Endowment. This work appears to address the challenge of simultaneously analyzing structural and attribute data within large-scale graph datasets, a complex problem in data mining. By focusing on correlated patterns, the research suggests a novel approach to extracting meaningful insights from heterogeneous graph information.

The originality of this line of work lies in its integration of attribute and structure analysis, moving beyond traditional methods that may treat these aspects separately. The publication in a premier database conference indicates that the proposed methodology was recognized as a significant advancement in the field at the time of its release.

The significance of this contribution is evidenced by its sustained impact, with 176 citations recorded. Notably, 97.6% of the classified citing papers originate from independent researchers, demonstrating that the work has been widely adopted and built upon by the broader scientific community rather than just the researcher's immediate circle. This high degree of independent uptake underscores the utility and influence of the proposed methods in advancing graph mining research.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Mining Attribute-structure Correlated Patterns in Large Attributed Graphs

2012 · Proceedings of the VLDB Endowment · 177 citations (GS)

Field-normalised: 147 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Contextual Stochastic Block Models (2018)	Harvard University, Massachusetts Institute of Technology, Stanford University	United States	—
2	The Atlas for the Aspiring Network Scientist (2021)	—	—	—
3	Community Detection in Multiplex Networks (2021)	CIRAD, University of Calabria	France, Italy	Background
4	Community Detection in Multi-Layer Graphs (2015)	KAIST	South Korea	**Methodology**
5	A Fast Fuzzy Clustering Algorithm for Complex Networks via a Generalized Momentum Method (2021)	—	—	**Methodology**
6	G-Miner (2018)	The Chinese University of Hong Kong, The University of Alabama at Birmingham	China, United States	Background
7	An Algorithm of Inductively Identifying Clusters From Attributed Graphs (2020)	Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences, New Jersey Institute of	China, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
		Technology, Wuhan University of Technology		
8	When Engagement Meets Similarity: Efficient (k,r)-Core Computation on Social Networks (2016)	University of New South Wales, University of Technology Sydney	Australia	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 Community Detection in Multi-Layer Graphs

"Silva et al. [21] proposed a community detection algorithm based on structural correlation pattern mining, called SCPM."

Contribution 3

Claim — Contribution 3

The researcher developed ProfileRank, a method for identifying relevant content and influential users by analyzing information diffusion patterns in social networks.

The researcher's contribution centers on the development of ProfileRank, introduced in a 2013 paper published in Social Network Mining and Analysis. This work proposes a framework for simultaneously identifying relevant content and influential users based on the mechanics of information diffusion. The titles indicate a focus on leveraging diffusion dynamics to enhance social network analysis, addressing the challenge of accurately measuring influence and relevance within complex network structures. By integrating these two aspects, the work appears to offer a unified approach to understanding how information spreads and who drives that spread. The significance of this contribution is evidenced by its citation record, with the core paper accumulating 103 citations. Notably, 97.6% of the classified citing papers originate from independent researchers, suggesting that the methodology has been widely adopted and validated by the broader academic community outside the researcher's immediate circle. This high degree of independent uptake underscores the work's utility and impact in the field of social network analysis.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8 · **1 flagged influential by Semantic Scholar**

CORE PAPER

ProfileRank: finding relevant content and influential users based on information diffusion

2013 · Social Network Mining and Analysis · 103 citations (GS)

Field-normalised: 77 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2013 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Measuring user influence on Twitter: A survey (2016)	Universidad de Santiago	Chile	Background
2	EFND: A Semantic, Visual, and Socially Augmented Deep Framework for Extreme Fake News Detection (2022)	Princess Nourah bint Abdulrahman University, Satbayev University, Zhengzhou University	China, Kazakhstan, Saudi Arabia	—
3	Emotion Dynamics of Public Opinions on Twitter (2020)	Indian Institute of Technology Guwahati, Universitat Politècnica de València	India, Spain	—

No.	Citing paper	Citing institution(s)	Country	S2
4	Time-aware domain-based social influence prediction (2020)	The University of Jordan	Jordan	Background
5	InfluencerRank: Discovering Effective Influencers via Graph Convolutional Attentive Recurrent Neural Networks (2023)	Amazon, Sungkyunkwan University, UCLA	South Korea, United States	**Methodology**
6	Identifying the influential spreaders in multilayer interactions of online social networks (2016)	International Business School Suzhou, Xi'an Jiaotong Liverpool University, University of Malaya	China, Malaysia	—
7	Understanding the User Behavior of Foursquare: A Data-Driven Study on a Global Scale (2020)	Aalto University, Fudan University	China, Finland	**Methodology**
8	An author-reader influence model for detecting topic-based influencers in social media (2014)	IBM	Israel	**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 InfluencerRank: Discovering Effective Influencers via Graph Convolutional Attentive Recurrent Neural Networks

"All rights reserved. information propagation (Romero et al. 2011; Silva et al. 2013; Kempe, Kleinberg, and Tardos 2003), social connections (Li, Lai, and Chen 2011), network centrality (Chen and Teng 2017), transparency (Kim, Jiang, and Wang 2021), and multi-relational network (Ma, Liu, and Chi…"

METHODOLOGY An author-reader influence model for detecting topic-based influencers in social media

"[19] proposed ProfileRank, an influence measure that considered the relevance of content generated by individuals and consumed by others."

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of California, Santa Barbara	United States	SCImago #584 · THE 72 · QS 179	4
New Jersey Institute of Technology	United States	SCImago #2104 · THE 501–600 · QS 761-770	3
University of Illinois at Urbana-Champaign	United States	SCImago #206 · THE =41	3
KTH Royal Institute of Technology	Sweden	SCImago #497 · THE =98 · QS 78	2
University of New South Wales	Australia	SCImago #107 · QS 20	2
University of Waterloo	Canada	SCImago #491 · THE =162 · QS =119	2
KAIST	South Korea	—	2
Rice University	United States	SCImago #818 · THE =103 · QS =119	2
Shanghai Jiao Tong University	China	SCImago #10 · THE 40 · QS =47	2

Institution	Country	World ranking	Citing papers
Tampere University	Finland	SCImago #1196 · THE 301–350 · QS =423	2
Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences	China	—	1
Max Planck Institute for Informatics	Germany	SCImago #181	1
Visa	United States	—	1
University for Business and Technology	Republic of Kosovo	SCImago #9247	1
Indian Institute of Technology Guwahati	India	SCImago #4149 · QS =334	1

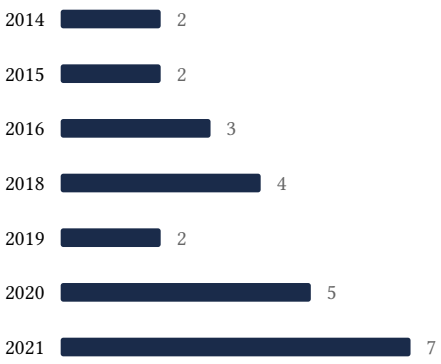
Geographic distribution of citing authors

Country	Citing papers
United States	20
China	12
Australia	6
Italy	4
Finland	4
Canada	3
South Korea	3
Sweden	2
France	2
India	2
Saudi Arabia	2
Spain	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	Watch me Playing, I am a Professional: a First Study on Video Game Live Streaming	8	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Mining Attribute-structure Correlated Patterns in Large Attributed Graphs	8	Dhanasar — Prong 2 (well-positioned)
Contribution 3	ProfileRank: finding relevant content and influential users based on information diffusion	8	Dhanasar — Prong 2 (well-positioned)