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Research Article

Photographic Visibility of Indian Politicians, Cricketers, and Film Stars in Print Journalism

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ABSTRACT

Background: Eugene Garfield and M. V. Malin's (1968) pioneering study, "Can Nobel Prize Winners Be Predicted?", was an early and influential attempt to correlate citation frequency with the likelihood of receiving prestigious scientific honors. Their work laid the groundwork for the use of citation analysis as a means of evaluating scholarly prominence and forecasting future recognition. This analytical framework was later adapted beyond the scientific domain, with Sen and Munshi (2001) applying similar quantitative techniques to analyse the visibility patterns of Indian political leaders. **Aim:** The aim of this study is to re-emphasize the significance of the visibility index as a valuable tool in bibliometric research, particularly for audiences in Library and Information Studies. This will be demonstrated through the analysis of images of political, sports, and film personalities as featured in newspapers. **Methodology:** This study analyses 1373 photographs of Indian public figures from politics, cricket, and cinema, as featured in five Kolkata-based daily newspapers-The Statesman, The Times of India (English), Anandabazar Patrika, Bartaman, and Eai Samay (Bengali)-between February 5 and 18, 2025. Of the 1,373 images, 695 were political figures (165 unique individuals), 434 from cinema (177 individuals), and 244 cricketers (40 individuals). Data were tabulated using MS Word and Excel, and the Visibility Index by Sen and Munshi (2001) was applied for analysis. **Results:** The analysis of 1,373 newspaper photographs reveals that political figures dominated media visibility, accounting for 50.62% of the 1,373 images, with 165 unique individuals. Cinema followed with 31.61% (177 individuals), and cricket had 17.77% (40 individuals). Prime Minister Narendra Modi had the highest visibility (137 mentions, VI 1.96), followed by Mamata Banerjee (86 mentions, VI 1.23). In cricket, Rohit Sharma led (44 mentions, VI 0.63). Film coverage was more fragmented, and no actor showed sustained visibility, indicating a strong editorial focus on political figures, a personality-driven approach in sports coverage, and sporadic attention to film celebrities. **Conclusion:** The study reveals a strong media bias toward politics, with national leaders dominating visibility. Cricket shows more balanced but event-driven coverage, while film personalities receive fragmented, short-lived attention. Overall, media visibility is personality-driven rather than domain-based, raising concerns about representational imbalance.

Keywords: Bibliometrics, Cricketers, Film Stars, India, Informetric, Newspapers, Photographic visibility, Politicians, Print media, Visibility index.

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INTRODUCTION

Visibility metrics, including the Visibility Index, are becoming standard in bibliometric studies due to their utility in assessing academic exposure across time. However, comprehensive investigations on this subject are still uncommon. Sen and Munshi, (2001) defined Visibility Index (VI) as *'a measure of the extent of media attention a person gets at a particular point of time.'* Media consists of newspaper, magazine, radio, TV, Internet, and social media, etc. An attempt has been made to present this to our audience in Library and Information Studies by showcasing political, sports, and film personalities through images featured in newspapers.

Historical Back Ground

At the 135th Annual Meeting of the American Association for the Advancement of Science (AAAS), held in Dallas from December 26 to 31, 1968, *Eugene Garfield and M. V. Malin* presented a ground-breaking paper titled *"Can Nobel Prize Winners Be Predicted?"* (Garfield and Malin, 1968). This presentation marked an early and influential attempt to correlate citation frequency with the likelihood of receiving prestigious scientific honours. Their work laid the foundation for the use of citation analysis

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as a tool to evaluate scholarly prominence and forecast future recognition.

Building on these early efforts, Garfield, (1986) later advanced the field by compiling a list of the fifty most-cited scientists using citation data from 1967. Notably, several individuals from that list were subsequently awarded the Nobel Prize, lending empirical support to the idea that citation metrics can serve as reliable indicators of academic impact and future accolades (Garfield, 1970; Garfield Library, 1968). This reinforced the broader legitimacy of *bibliometric methods* in assessing scientific influence.

The analytical framework proposed by Garfield and Malin was later extended beyond the scientific community. For instance, Sen and Munshi, (2001) extended this methodology to the political sphere, attempting to trace the visibility patterns of Indian political leaders using similar quantitative techniques (Sen and Munshi, 2001).

Visibility Index: A Multidisciplinary Measure of Influence

The term "Visibility Index" typically refers to a quantitative measure of prominence, influence, or public recognition of an individual, institution, or topic. It is increasingly employed across domains such as academia, political science, and media studies to evaluate the extent of attention or recognition garnered by entities within their respective fields (Garfield, 1970; Sen and Munshi, 2001). The Visibility Index is generally constructed as a composite metric, aggregating multiple indicators such as citation counts, media coverage, social media engagement, and network centrality. These elements together form a holistic view of how visible or influential a person, work, or institution is within scholarly or public discourse (Garfield, 1986; Thelwall, 2008).

In Academia: Bibliometric Foundations

In academic contexts, the Visibility Index is closely tied to *bibliometric indicators*, particularly those that measure scholarly impact. Key components often include:

Citation frequency-the number of times a publication or author is cited in other scholarly work.

h-index and g-index-metrics that combine productivity and citation impact.

Publication in high-impact journals-reflecting both quality and dissemination.

Inclusion in "citation classics"-frequently cited foundational works, as defined by Garfield (1986).

The work of Eugene Garfield, the founder of citation indexing, was pivotal in shaping the idea that scholarly visibility could be quantified. In his collaborative study with M. V. Malin, presented at the 135th AAAS Annual Meeting in 1968, Garfield introduced the idea of predicting Nobel Prize winners based on citation data (Garfield and Malin, 1968). This model effectively served as a visibility index, identifying highly cited scientists as potential laureates. Later, Garfield (1970, 1986) reinforced this methodology by ranking the most-cited scientists using 1967 citation data. Subsequent Nobel recognitions of individuals on that list validated the predictive power of citation-based visibility metrics.

In Politics and Media: Extending the Model

Outside of academia, the Visibility Index has been extended to media and political analysis. In a notable study, Sen and Munshi (2001) adapted citation-based metrics to assess political visibility in India. Their index incorporated indicators such as:

Media citations-appearances in newspapers and television.

Parliamentary speeches-frequency and content of participation in legislative debates.

Public appearances and official engagements-as proxies for leader visibility.

This study demonstrated that *quantitative visibility* in the public sphere can be *measured similarly to academic impact*, highlighting cross-disciplinary applications of visibility indices (Sen and Munshi, 2001).

Core Components of a Visibility Index

Core components of VI may mention as follows:

Component	Description
Citations	Number of times an individual's work is referenced in scholarly texts.
Media Mentions	Mentions in newspapers, TV, blogs, or online news.
Search Engine Hits	Frequency of search results associated with a name or topic.
Social Media Metrics	Followers, shares, mentions, and engagement on platforms like Twitter, Facebook.
Network Centrality	Influence measured through network analysis in scholarly or social networks.

These indicators can be *weighted and aggregated* into a single visibility score, depending on the objective of the study or evaluation.

Significance and Applications

The *Visibility Index* has several important applications:

- *Objective measurement* of influence across disciplines.
- Supports *evaluation of academic, political, or institutional performance*.

- Enables trend analysis-e.g., tracking how an individual or idea gains or loses prominence over time.
- Can inform *strategic decisions*, such as research funding allocation, political campaigns, or media outreach.

As demonstrated by Garfield's early bibliometric work (Garfield and Malin, 1968; Garfield, 1970), and extended by Sen and Munshi (2001), the Visibility Index remains a powerful interdisciplinary tool for *measuring and predicting influence.*

Literature Review

Although literature on the Visibility Index is limited in the bibliometric field, a general understanding can be formed by reviewing related concepts and applications.

Introduction to Visibility and Influence Metrics

The measurement of visibility has become a critical component in evaluating influence across disciplines such as academia, politics, and media. The term "*Visibility Index"* typically refers to a *composite metric that quantifies the prominence of an individual, organization, or topic*, based on various indicators such as citation counts, media coverage, and public engagement (Garfield, 1986; Thelwall, 2008). The rise of quantitative methods in both bibliometrics and political science has led to more systematic attempts to measure visibility, often as a proxy for impact or influence.

Bibliometric Origins and Academic Visibility

The concept of visibility within the academic sphere has been strongly shaped by the field of *bibliometrics*, particularly through the work of Eugene Garfield. Garfield pioneered the use of *citation indexing* as a means to assess the impact and influence of scientific work (Garfield, 1970). In collaboration with M. V. Malin**,** he presented a seminal paper titled "Can Nobel Prize Winners Be Predicted?" at the *135th Annual Meeting of the American Association for the Advancement of Science (AAAS)* in 1968. In this study, Garfield and Malin (1968) proposed that citation counts could serve as predictors of future Nobel laureates, effectively creating an early version of a *visibility index* for scholars.

This approach was further supported by Garfield's later work, in which he compiled a list of the fifty most-cited scientists based on 1967 citation data. The subsequent Nobel recognition of many individuals on that list validated the idea that *frequent citation correlates with scholarly prestige* (Garfield, 1986). Today, tools such as the *h-index***,** *g-index*, and other citation-based metrics are frequently used in visibility assessments within academia (Hirsch, 2005; Bornmann and Daniel, 2008).

Extension to the Political Domain

The visibility index concept has not been confined to academia. Researchers have extended the methodology to the *political and public spheres*. In a notable study, Sen and Munshi (2001) adapted citation analysis techniques to evaluate the visibility of Indian political leaders. Their approach included *media citations, parliamentary speech frequency*, and *public appearances* as variables that collectively indicated a leader's prominence in national discourse. This shift illustrated the adaptability of bibliometric methodologies beyond their original academic context.

Sen and Munshi's (2001) study demonstrated that *visibility could be quantified in the political arena*, enabling researchers to analyze patterns of influence, public engagement, and recognition in ways similar to scholarly impact assessment. Their model contributed to a broader understanding of how *quantitative data* can inform qualitative insights into political behavior and leadership dynamics.

Visibility in Media and Digital Platforms

With the advent of digital media and online networks, visibility has become even more *multidimensional***.** Modern visibility indices now often incorporate data from *search engines***,** *social media platforms*, and *digital news outlets* (Thelwall, 2008). These tools capture real-time indicators of public interest, such as the number of mentions, engagement metrics (likes, shares, comments), and the spread of information within online networks.

Altmetrics**,** for instance, represent a modern evolution of traditional citation-based visibility measures, incorporating online attention from sources such as Twitter (now X), Mendeley, blogs, and mainstream news (Priem *et al*., 2010). This evolution reflects the growing importance of *non-academic forms of visibility* **,** particularly in interdisciplinary research and public communication.

Components and Construction of a Visibility Index

Across its various applications, the *Visibility Index* is typically constructed using a mix of quantitative indicators. These commonly include:

- *Citation counts* (academic references to an author or work),
- *Media mentions* (in newspapers, television, and online news),
- *Search engine frequency* (Google hits, for example),
- *Social media metrics* (followers, mentions, reposts),
- *Network centrality* (importance within academic or communication networks).

Depending on the domain and the purpose of analysis, these components may be *weighted differently* or aggregated using statistical models such as *principal component analysis or regression-based scoring* (Leydesdorff and Milojević, 2015).

Critical Perspectives and Limitations

While the visibility index offers a valuable tool for measuring influence, it is not without limitations. Critics argue that *high visibility does not always equate to quality or expertise*, especially in domains where media sensationalism or political populism can inflate public recognition (Seglen, 1997). Furthermore, the over-reliance on citation counts may disadvantage newer researchers, interdisciplinary scholars, or work published in non-English languages.

Nonetheless, when interpreted with caution, the visibility index remains a *robust indicator of relative prominence*, particularly when combined with qualitative analysis.

Objectives

The primary objectives of this study are to:

- Analyze and distribute photographs of individuals featured in newspapers, categorized by domain, during the period of February 5-18, 2025.
- Classify the number of individuals represented in each newspaper.
- Identify and highlight visibility patterns associated with each individual.
- Calculate and present the visibility index of individuals across different domains.

METHODOLOGY

This study analyzes 1,373 photographs of Indian public figures from the fields of politics, sports (specifically cricket), and cinema, as they appeared in the print media-specifically, newspapers. Five daily newspapers were examined: *The Statesman, The Times of India, Anandabazar Patrika, Bartaman*, and *Ei Samay*. These newspapers were collected between February 5 and February 18, 2025, from the college library and a local newspaper vendor. The first two are English-language newspapers, while the remaining three are in Bengali. All five are published daily from Kolkata, including weekends. Newspapers from all 14 days were scanned, and photographs of individuals were examined along with their captions and related articles to identify the individuals' fields-politics, cricket, or film. A total of 1,373 photographs were collected and tabulated using MS Word and MS Excel. Of the total appearances, 695 were associated with politics (representing 165 unique individuals), 434 with the film industry (177 unique individuals), and 244 with cricket (40 unique individuals).

Statistical Analysis

Statistical Analysis is nothing but a bibliometric analysis or informatic analysis. Statistical analysis is an application of mathematical or statistical methods to books, journals or data /information to clarify systematically the findings from the analysis. In this study, the Visibility Index, as developed by Sen and Munshi, (2001), was applied for further analysis. Modified formula of:

$$\text{Visibility Index (VI)} = \frac{\text{Number of times a person's photo appears in the newspapers}}{(\text{Total number of newspapers} \times \text{Total number of days covered in the study})} \quad \text{-------- [1]}$$

It is affirmed that this work is original, free from plagiarism, and produced with integrity. All sources have been properly acknowledged, and the research has been carried out in an ethical and responsible manner.

RESULTS

Domain wise Distribution of Persons' Photographs

Table 1 and Figure 1 show a domain-wise analysis of the distribution of persons' photographs published across five newspapers-ABP, TOI, AIS, STSM, and BRTM-during the two-week period from February 5 to 18, 2025. The analysis is segmented into three main domains like Politics, Sports (Cricket), and Cinema (Film). Politics had the highest visibility, with 165 unique persons featured across 695 appearances, accounting for 50.62% of the total photographs. The Cinema domain had 177 unique individuals, second only to politics in diversity, but appeared 434 times, comprising 31.61% of the total. Sports (Cricket) had the lowest number of unique persons (40) but still appeared 244 times, making up 17.77% of the total.

Media Attention of Persons and Photographs

The data in Table 2 provides a comparative overview of the representation of individuals across three domains-Politics, Cricket, and Film-in five newspapers, including both English and Bengali publications. A total of 165 unique persons from Politics, 40 from Cricket, and 177 from Film were featured across all newspapers. In terms of photo coverage, Politics dominated with 695 photos, followed by Film (434) and Cricket (244). Among the English newspapers, *Statesman* had the highest political focus, featuring 85 unique political figures and publishing 323 political photos, while *Times of India* balanced its coverage between Politics and Film. In contrast, Bengali newspapers such as *Anandabazar Patrika* and *Bartaman* showed a stronger inclination toward Film and Cricket, especially *Bartaman*, which published 166 cricket photos, the highest in this domain.

Peak Day Visibility

Table 3 highlights the top-tracked individuals across Politics, Film, and Cricket, offering insight into the media's focus during the two-week period. *Prime Minister Narendra Modi* dominated political coverage, appearing over *14 days with 137 total mentions*,

and peaking on February 15 with 19 photos-demonstrating sustained visibility and a high average of nearly *10 mentions per day*. This extensive coverage reflects his central role in political discourse, likely linked to key national events or announcements. In contrast, *Amitabh Bachchan*, though a legendary film figure, was visible for only *9 days, with 16 total mentions*, averaging *2 mentions per day*, and peaking modestly on February 8. This suggests a relatively subdued media presence, possibly due to a lack of major cinematic activity during the period. Cricket captain *Rohit Sharma* saw significant attention with *13 days of visibility and 44 mentions,* peaking on February *10 and 11 (6 photos each day)*, likely correlating with an ongoing cricket series.

Calendar View

The heat map/ calendar view in Table 4 illustrates the daily visibility of top public figures across Politics, Cricket, and Film between February 5 and 18, 2025, reflecting clear patterns of media attention and domain-specific prominence. The person who appeared the most across the days was Prime Minister Narendra Modi, India, who had the highest mentions on most days, especially on February 9 and 15 where he had 15 and 18 mentions. His consistent presence suggests he was likely involved in major national-level activities or events. Mamata Banerjee, the CM of West Bengal, had a strong presence from February 5 to 7, and then again on February 13, where she reached her peak visibility with 18 mentions. This likely reflects state-level political activities or campaigns, possibly in West Bengal. In sports, Indian cricketers were very active in the media. Rohit Sharma appeared on many days, especially February 10 and 11, showing steady media coverage-possibly due to cricket matches or captaincy-related news. Virat Kohli and Shubman Gill also appeared often, especially on February 7, 9, 12, and 17, which could be related to their performances or personal events. From the entertainment industry, several Bollywood and Bengali film actors were featured. Amitabh Bachchan, Hrithik Roshan, Shah Rukh Khan, Priyanka Chopra, and Saif Ali Khan appeared prominently. Film celebrities had more mentions in the second week, especially around Valentine's Day (Feb 14), which could be

Table 1: Domain-wise distribution of persons' photographs (Feb 5-18, 2025).

Domain	No. of Unique Persons	Total Appearances	%-age	Newspapers Featured In
Politics	165	695	50.62	ABP, TOI, AIS, STSM, BRTM
Sports (Cricket)	40	244	17.77	ABP, TOI, AIS, STSM, BRTM
Cinema (Film)	177	434	31.61	ABP, TOI, AIS, STSM, BRTM
Total	382	1373	100	

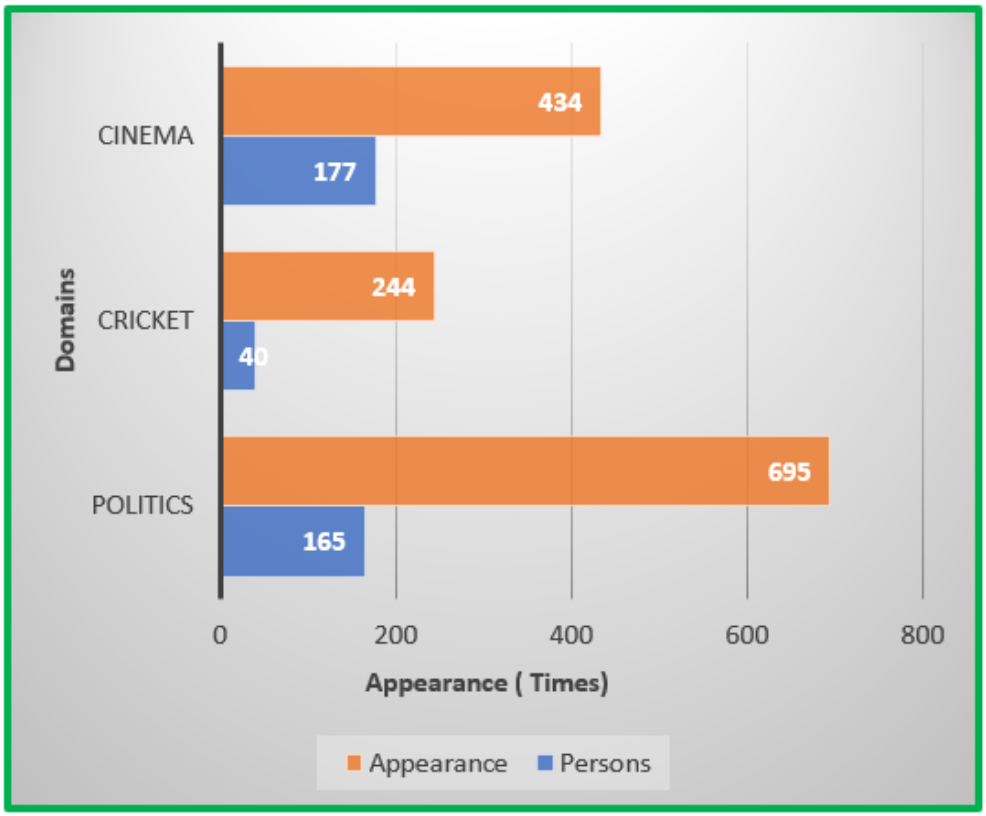

Figure 1: Showing persons and media attentions.

Table 2: Number of Persons by Newspapers and Domain (Feb 5-18, 2025).

Newspapers		No. of Unique Persons			Total Photos Published		
		Domain			Domain		
Titles	Code	Politics	Cricket	Film	Politics	Cricket	Film
Times of India (English)	TOI	44	3	31	121	07	112
Statesman (English)	STSM	85	2	15	323	20	34
Anandabazar Patrika (Bengali)	ABP	9	9	56	30	30	138
Bartaman (Bengali)	BRTM	19	16	25	99	166	62
Ei Samay (Bengali)	AIS	8	10	50	122	21	88
Total		165	40	177	695	244	434

Table 3: Person-wise top visibility pattern in three Domain (Feb 5-18, 2025).

Person Name	Domain	No. of Days Visible	Total Mentions	A/D	Peak Day	Designation
Narendra Modi	Politics	14	137	9.78 (or ca. 10)	15th Feb (19 photos)	Prime Minister, India
Amitabh Bachchan	Film	9	16	1.77 (or ca. 2)	8th Feb (4 Photos)	Superstar, Indian Cinema
Rohit Sharma	Cricket	13	44	3.38 (or ca.3)	10th and 11th Feb (6 photos each day)	Cricketer, Indian team and Captain

linked to movie releases, promotions, or events. Bengali actors like Ritwik Ghatak, Yash Daasguptaa, and Nussrat Jahan also appeared around this time, possibly due to local film or cultural events.

Visibility Index (VI)

The study now calculates a visibility index using the formula 1 originated by Sen and Munshi (2001).

Political Leaders: VI

Table 5 ranks the top 15 Indian political leaders based on their Visibility Index (VI) from February 5 to 18, 2025, reflecting the extent and intensity of their media presence. *Prime Minister Narendra Modi* leads with a substantial *137 source* items and a *VI of 1.96*, indicating his dominant and consistent visibility across platforms-nearly doubling the index of the next figure. *West Bengal Chief Minister Mamata Banerjee* follows with *86 mentions* and a *VI of 1.23*, marking her as the most visible regional leader, likely due to state-specific events or political mobilizations. *Finance Minister Nirmala Sitharaman,* with *27 items* and a *VI of 0.39*, ranks third, perhaps owing to fiscal policy announcements or economic discussions. Other national leaders such as *Arvind Kejriwal, Rahul Gandhi, Yogi Adityanath*, and *Amit Shah* have relatively modest visibility (VIs ranging from *0.24 to 0.19*), showing limited media traction during this period. Interestingly, *President Droupadi Murmu* also appears with a low *VI of 0.20*, reflecting the ceremonial nature of the office rather than day-to-day political engagement. Leaders from smaller or regional states-like *Nongthombam Biren Singh, Bhagwant Mann,* and *Sri Siddaramaiah* have minimal visibility, with *VIs below 0.20*, while newer or less nationally prominent figures such as *Atishi Marlena* rank *lowest (VI 0.11)*.

Cricketer: VI

Table 6 outlines the media visibility of the top 15 Indian cricketers during the two-week period from February 5 to 18, 2025, based on the *Visibility Index (VI)* and number of *source items. Rohit Sharma*, the current captain of the Indian team, tops the chart with *44 mentions* and a *VI of 0.63*, closely followed by *Virat Kohli*, the former captain, with *42 mentions* and a *VI of 0.60*. Their sustained presence suggests they remain central to media narratives, likely due to leadership roles, on-field performance, or their iconic status. *Jasprit Bumrah* and *Shubman Gill* follow with *16* and *14* items respectively, while *Gautam Gambhir*, despite being an ex-head coach, maintains notable visibility with *12 mentions*, possibly tied to commentary or off-field controversies. The remaining cricketers, including active players like *Shreyas Iyer, Ravindra Jadeja*, and *Suryakumar Yadav*, feature with much lower VIs (ranging from *0.14 to 0.07*), reflecting either reduced match participation or limited off-field visibility.

Film Stars: VI

Table 7 presents the *Visibility Index (VI) of the top 15 Indian film stars* across Hindi and Bengali cinema during the period of February 5-18, 2025. Amitabh Bachchan leads the chart with the highest visibility index (VI) of 0.23, indicating his continued relevance and media presence despite the generational shift in cinema. Among the top five, Saif Ali Khan and Salman Khan, both from Hindi cinema, maintain strong positions with VI of 0.17 and 0.14 respectively, tying with Subhashree Ganguly and Uttam Kumar from Bengali cinema. This parity suggests regional cinema, especially Bengali, is holding notable space in public discourse. Bengali stars like Dev Adhikari, Swastika Mukhopadhyay, and Rituparna Sengupta have a steady presence, making up nearly half the list, highlighting the regional industry's growing media traction.

The line graph in Figure 4 illustrates the *Visibility Index (VI)* of top individuals across three major public domains-Politics, Cricket, and Film-over the period from February 5 to 18, 2025. Politics (blue line) shows the highest visibility initially at 1.96, *Narendra Modi*, and shows a steady decline through mid-tier leaders, eventually levelling around 0.2-0.3 VI, but it experiences a sharp decline to 1.23, then drops further to 0.39, and finally reaches 0.26, indicating reduced attention for less prominent figures. Cricket (orange line) starts at 0.63 VI for *Rohit Sharma*, declines slightly to 0.60, then more significantly to 0.23, and finally to 0.14 VI. Film (grey line) begins with the lowest visibility at 0.23 and maintains a relatively stable trend, gradually decreasing to VIs 0.17, 0.14, and holding steady at 0.14.

DISCUSSION

Based on the findings described earlier, the discussion highlights the following key factors.

Dominance of Political Coverage

Political figures accounted for 165 unique individuals and a striking 695 appearances, making up 50.62% of all photographs-evidence of strong media focus likely influenced by elections, policy debates, or political controversies. This indicates

Table 4: Heat Map / Calendar View (Feb 5-18, 2025).

Date	High Visibility Persons (Top in each Domain)	Designation
Feb 5	Mamata Banerjee (11); Shubman Gill (5); Aamir khan (2), Dia Mirza (2), Parambrata Chattopadhyay (2), Ranbir Kapoor (2), Sonu Sood (2).	CM, West Bengal; Indian Cricketer; Indian Actors and Actress.
Feb 6	Mamata Banerjee (12); Rohit Sharma (4); Priyanka Chopra (2), Tanusree Chakraborty (2).	CM, West Bengal; Indian Cricketer; Indian Actress
Feb 7	Mamata Banerjee (15); Shreyas Iyer (3), Shubman Gill (3), Virat Kohli (3); Aamir Khan (3), Paoli Dam (3), Swastika Mukhopadhyay (3).	CM, West Bengal; Indian Cricketers; Indian Actor and Actress
Feb 8	Narendra Modi (7); Shreyas Iyer (5); Amitabh Bachchan (4), Priyanka Chopra (4)	PM, India; Indian Cricketer; Superstar, Actress
Feb 9	Narendra Modi (15); Virat Kohli (5); Dev Adhikari (2), Suchitra Sen (2), Subhashree Ganguly (2); Salman Khan (2), Shahid Kapoor (2), Kareena Kapoor (2).	PM, India; Indian Cricketer; Bengali Film Actor and Actress; Hindi film Actor and Actress.
Feb 10	Narendra Modi (10); Rohit Sharma (6); Saif Ali Khan (5)	PM, India; Indian Cricketer; Hindi Film Actor
Feb 11	Narendra Modi (09); Rohit Sharma (6); Saif Ali Khan (3)	PM, India; Indian Cricketer; Hindi Film Actor
Feb 12	Narendra Modi (15); Virat Kohli (7); Ram Kamal Mukherjee (4)	PM, India; Indian Cricketer; Indian Film Director
Feb 13	Mamata Banerjee (18); Shubman Gill (5); Konidela Chiranjeevi (4)	CM, West Bengal; Indian Cricketer; Indian Film Actor
Feb 14	Narendra Modi (08); Wriddhiman Saha (4); Ritwik Ghatak (3), Yash Daasguptaa (3); Nusrat Jahan (3)	PM, India; Indian Cricketer; Bengali Film Actor and Actress
Feb 15	Narendra Modi (18); Kapil Dev (5); Hrithik Roshan (5)	PM, India; Indian Cricketer; Indian Film Actor
Feb 16	Narendra Modi (06); Rohit Sharma (3); Anindya Chatterjee (3), Sohini Guha Ray (3)	PM, India; Indian Cricketer; Indian Film Director, Bengali Film Actress.
Feb 17	Narendra Modi (07); Virat Kohli (5); Shah Rukh Khan (5)	PM, India; Indian Cricketer; Indian Film Actor
Feb 18	Narendra Modi (08); Rohit Sharma (5); Amitabh Bachchan (2), Ritik Roshan (2), Rohaan Bhattacharya (2), Solanki Roy (2), Taapsee Pannu (2); Rekha (2).	PM, India; Indian Cricketer; Indian Film Actors, Bengali Film Actor and Actress, Indian Film Actress

Table 5: Visibility Index of Top 15 Indian Political Leaders (Feb 5-18, 2025).

Names	Designation	Source Items	Visibility Index (VI)
Narendra Modi	Prime Minister, India	137	1.96
Mamata Banerjee	Chief Minister, West Bengal	86	1.23
Nirmala Sitharaman	Finance Minister, India	27	0.39
Arvind Kejriwal	Activist and former Chief Minister of Delhi	18	0.26
Rahul Gandhi	Opposition Leader, India	17	0.24
Yogi Adityanath	Chief Minister, Uttar Pradesh	17	0.24
Droupadi Murmu	President of India	14	0.20
Amit Shah	Home Minister, India	13	0.19
Nongthombam Biren Singh	Minister, Information Technology, Manipur	13	0.19
Bhagwant Singh Mann	Chief Minister, Punjab	12	0.17
Abhishek Banerjee	Member of Parliament, West Bengal	11	0.16
Rajnath Singh	Defense Minister, India	11	0.16
Sri Siddaramaiah	Chief Minister, Karnataka	9	0.13
Akhilesh Yadav	Member, Lok Sabha, India	9	0.13
Atishi Marlena	Member, Delhi Legislative Assembly	8	0.11

Table 6: Visibility Index of Top 15 Indian Cricketer (Feb 5-18, 2025).

Names	Designation	Source Items	Visibility Index
Rohit Sharma	Captain, Indian Team	44	0.63
Virat Kohli	Former Captain, Indian Team	42	0.60
Jasprit Bumrah	The Best Fast Bowler	16	0.23
Shubman Gill	Vice-Captain, Indian Team	14	0.20
Gautam Gambhir	Ex-head Coach, Indian Team	12	0.17
Shreyas Iyer	Right-handed middle-order batter	10	0.14
Ravindra Jadeja	All-rounder	8	0.11
Suryakumar Yadav	Right-handed middle-order batter.	7	0.10
Arshdeep Singh	Cricket Bowler	7	0.10
Axar Patel	All-rounder	6	0.09
Harshit Rana	Cricket Bowler	6	0.09
Varun Chakavarthy	Leg-spin bowler.	6	0.09
Washington Sundar	Spinner	6	0.09
Kapil Dev	Former Indian Cricketer	5	0.07
Rishabh Pant	Wicket-keeper batter	5	0.07

a significant media focus on political figures, possibly driven by ongoing events such as elections, policy debates, or political controversies during the given period.

Cinema Attracts Broad but Moderate Attention

In contrast, the cinema domain displayed the highest diversity with 177 unique individuals, yet registered only 434 appearances (31.61%), suggesting that while cinema coverage is broad, each individual receives relatively fewer repeated features.

Cricket Shows High Concentration, Low Diversity

Cricket exhibited the opposite pattern, with the lowest diversity at just 40 unique persons but still 244 appearances (17.77%), indicating heavy concentration on a small group of prominent players, particularly during major sporting events. This indicates a high frequency of appearance per individual, possibly due to major cricket events during the period, with media repeatedly featuring the same prominent players.

Table 7: Visibility Index of Top 15 Indian Film Stars (Feb 5-18, 2025).

Name	Designation	Source Item	Visibility Index
Amitabh Bachchan	Actor, Hindi Cinema	16	0.23
Saif Ali Khan	Actor, Hindi Cinema	12	0.17
Salman Khan	Actor, Hindi Cinema	10	0.14
Subhashree Ganguly	Actress, Bengali Cinema	10	0.14
Uttam Kumar	Actor, Bengali Cinema	10	0.14
Dev Adhikari	Actor, Bengali Cinema	9	0.13
Kajol Devgan	Actress, Hindi Cinema	9	0.13
Priyanka Chopra	Actress, Hindi Cinema	9	0.13
Shah Rukh Khan	Actor, Hindi Cinema	9	0.13
Swastika Mukhopadhyay	Actress, Bengali Cinema	9	0.13
Aamir Khan	Actor, Hindi Cinema	8	0.11
Hrithik Roshan	Actor, Hindi Cinema	8	0.11
Ranbir Kapoor	Actor, Hindi Cinema	8	0.11
Ritwik Ghatak	Actor, Bengali Cinema	7	0.10
Rituparna Sengupta	Actress, Bengali Cinema	7	0.10

Uniform Newspaper Coverage

All three domains were covered across all five newspapers, suggesting editorial parity in the choice of domains featured, even if the volume and diversity differed.

Skewed Representation

The imbalance in representation-where over half of all photo appearances was political-suggests a potential overemphasis on political news, possibly at the cost of cultural or sports diversity in visual reporting.

Despite all three domains being represented across all five newspapers-showing a baseline editorial parity-the clear numerical imbalance, especially the political sector's more than half share of all appearances, points to skewed representation. Overall, the figures reveal a media landscape where politics commands the greatest visibility, cinema offers broad but moderate attention, and cricket receives focused, high-frequency coverage, reflecting distinct editorial and audience priorities during the period.

A Comparative Overview of Political, Entertainment, and Sports Coverage

Media attention of persons and photographs (Table 2) is interestingly revealed that *Anandabazar Patrika* showcased the most unique film personalities (56), indicating a strong entertainment focus. Overall, the data suggests a significant editorial emphasis on political coverage in English newspapers and a more entertainment- and sports-oriented focus in Bengali dailies. Figures 2A and 2B graphically represent the number of unique individuals and photographs, respectively, across five different media outlets (Table 2).

Peak-Day Visibility and Power-Centric Narratives in Media Coverage

As per peak day visibility in Table 3, while Prime minister Modi's consistent coverage points to the dominance of political narratives in the media, the tracking of Sharma and Bachchan appears event-driven. Critically, the disparity in coverage raises questions about media priorities-especially the overwhelming focus on political leadership, which may overshadow cultural or sporting achievements even during relevant events. The data subtly reveals a media landscape that favours power-centric narratives over balanced domain representation. The peak days of photograph visibility are presented graphically in Figure 3.

Mapping Daily Attention Across Politics, Cricket, and Film

The heat map or calendar view in Table 4 captures the day-to-day visibility of leading figures from Politics, Cricket, and Film between February 5 and 18, 2025, revealing distinct patterns of media focus across domains. The data highlights a blend of political prominence, sustained cricket enthusiasm, and a rising entertainment presence as the weeks progressed. Political leaders-particularly Modi and Mamata-dominated coverage in the early and middle part of the period, while cricket maintained consistent visibility throughout. In contrast, film personalities gained greater attention during the second week, illustrating how different sectors rise and fall in media relevance over time. These patterns point to a media environment that continues to privilege political narratives, often overshadowing cultural and sporting developments. Such trends prompt important reflections on media agenda-setting, audience engagement strategies, and

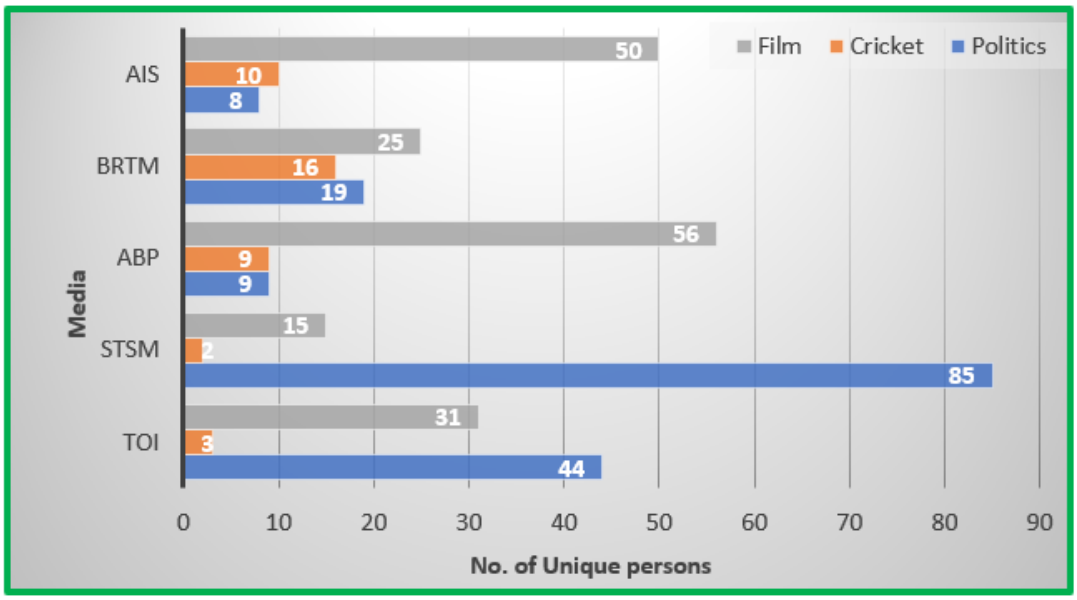

Figure 2A: Showing number of unique persons by media.

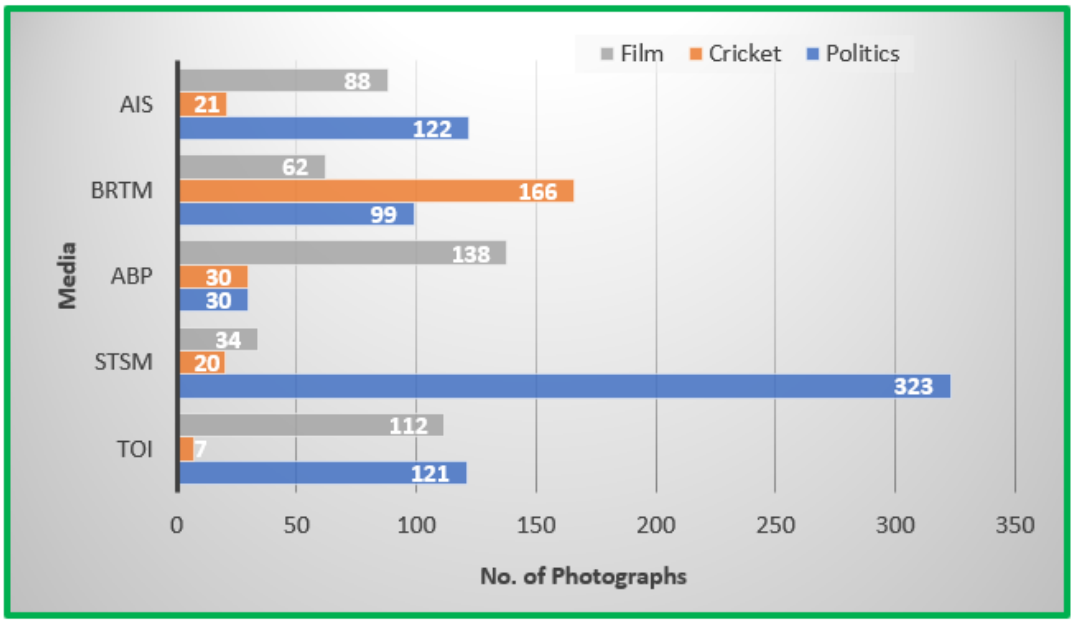

Figure 2B: Showing number of photographs by media.

the shifting criteria that shape what becomes newsworthy in contemporary Indian journalism.

Comparative Statement of Domain wise Visibility Index

The *Visibility Index starkly highlights the centralization of media focus on top-tier national political figures*, especially *Narendra Modi*, whose *VI is over 17* times higher than that of *Atishi Marlena*. While some fluctuation based on political events is expected, the data suggests an *overwhelmingly personality-driven political media landscape*, with *disproportionate attention toward power figures at the national level*, often at the expense of other relevant political voices, especially from opposition parties and regional governments. This imbalance raises concerns about media plurality, issue-based coverage, and the diversity of political representation in public discourse (Figure 4).

The visibility distribution clearly indicates that media coverage in *cricket is heavily personality-driven*, with top-tier players and former icons commanding the lion's share of attention, even when not directly involved in matches. Figures like *Kapil Dev*, a retired player, appearing in the top 15, suggest that legacy and public stature often outweigh current performance in shaping media visibility. Additionally, *emerging or role-specific players* (e.g., bowlers, all-rounders) receive relatively minimal coverage, highlighting a media tendency to underrepresent specialized or supporting roles. This reinforces a *celebrity-centric approach*

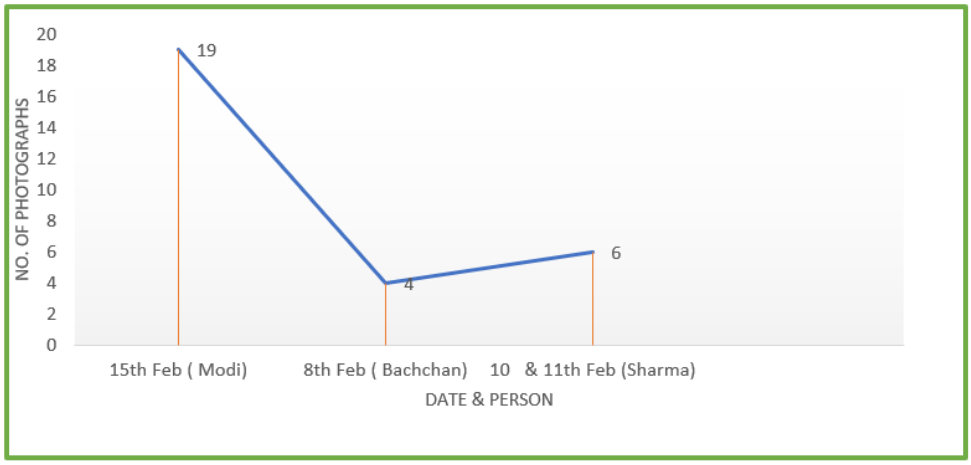

Figure 3: Peak day of persons by highest number of photos appeared.

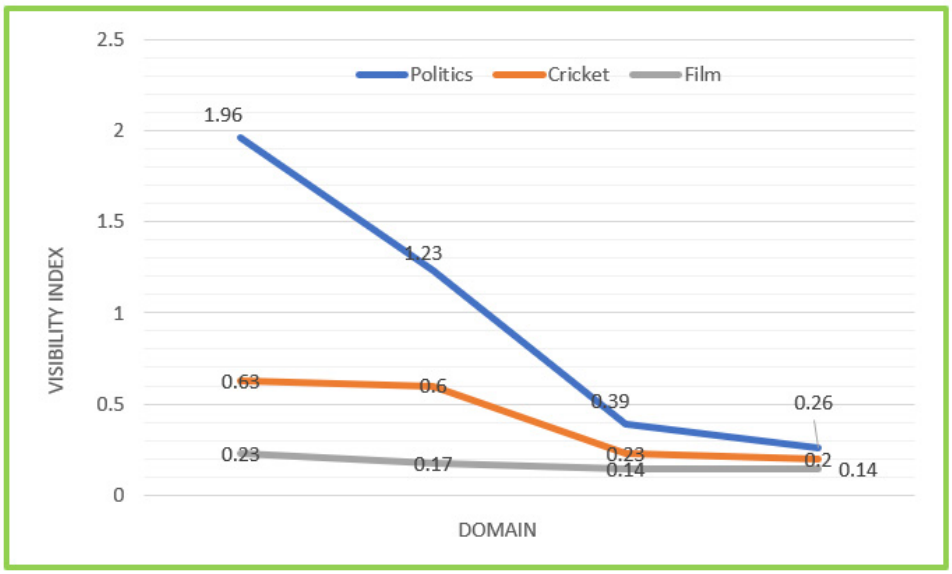

Figure 4: Comparative Visibility Index using line graph between Politics, Cricket and Film.

in sports journalism, where leadership and fame consistently overshadow broader team dynamics or performance-based merit.

Visibility Index (VI) of the top 15 Indian film stars across Hindi and Bengali cinema during the period of February 5-18, 2025 has focused that the majority still comes from Hindi cinema, underscoring Bollywood's dominant cultural influence. Amitabh Bachchan stands at the forefront with the highest visibility index. Stars like Priyanka Chopra and Shah Rukh Khan, despite their global fame, have relatively moderate visibility scores (i.e. VI 0.13 each), indicating a possibly quieter media fortnight or a shift in media focus. Overall, the data shows a diversified media landscape with both Bollywood and regional film stars sharing visibility, suggesting evolving audience interests and media representation patterns.

Overall, Politics has the highest visibility but also the steepest decline, whereas Film maintains the most consistent, albeit low, visibility. Cricket lies in between, showing moderate visibility with a gradual decline. The data indicates that while politics dominates visibility initially, interest or visibility significantly wanes over time or categories, while film remains consistently low. The graph underscores that *media visibility is personality-driven rather than domain-driven*, with a few high-profile individuals in each sector capturing disproportionate attention, revealing the imbalanced and hierarchical nature of public representation in Indian media.

CONCLUSION

Ultimately, the key findings of this study may be summarized in the conclusion.

Facts Represented

Politics dominates media coverage across the board, with the *highest visibility index* for top leaders.

Cricket holds a mid-range, more consistent presence.

Film stars have the lowest and most uniform visibility, with no standout spikes.

All domains show a *downward trend*, but *politics begins from a much higher point*, indicating a *steep concentration* of media attention on a few individuals.

Analytical Comments

Media Focus is Heavily Skewed Toward Politics

The visibility gap between politics and the other domains is *striking*, particularly at the top.

This reflects a *media ecosystem driven by political personalities*, particularly national leaders like the Prime Minister.

Cricket Shows Balanced but Less Intense Visibility

Cricketers enjoy a *steady media presence*, but no one matches the political leaders in coverage.

The smaller VI gap among cricketers suggests *shared media space*, likely related to team events rather than individual performance alone.

Film Personalities Have Fragmented Visibility

The low and flat gray line suggests *limited or dispersed media focus* on film stars during this period.

Unlike politics and cricket, *no individual film star dominates*-possibly due to fewer major releases or event-driven appearances.

Visibility is Personality-Driven, Not Domain-Driven

Each domain's curve is led by a few individuals who skew the average upward.

As visibility drops sharply down the list, it becomes clear that *media visibility is not equally distributed*, but concentrated among a handful of figures.

This graph visually confirms the *hierarchical nature of media attention* in India during the given period-with *politics at the forefront*, followed by *cricket*, and *film* trailing significantly. The data supports concerns about *imbalanced representation* and the growing trend of *personality-centric media narratives*, especially within the political sphere.

However, this study is a very interesting and a new vista of informetric study. Hope that this study opens a novel avenue in informetric research, highlighting the potential of media-based visibility analysis. It is anticipated that future information scientists will explore similar methodologies across diverse media platforms.

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ABBREVIATIONS

AAAS: American Association for the Advancement of Science; ABP**:** The Anandabazar Patrika; **A/D:** Average per Day; **AIS:** The Eai Samay; **BRTM:** The Bartman; **ca.:** Approximately; **CM:** Chief Minister; **MS Word**: Microsoft Word; **MS Excel**: Microsoft Excel; **PM:** Prime Minister; **STSM:** The Statesman; **TOI:** The Times of India; **VI:** Visibility Index; **TV**: Television.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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AUTHOR CONTRIBUTIONS

Dr. Koley contributed the conceptual framework, planned the work, and refined the manuscript by drafting the introduction, making necessary revisions, additions, and modifications, and formulating the final conclusions. Ms. Goswami was responsible for data collection, organization, tabulation, and the initial drafting of the article under Koley's guidance and supervision.

SUMMARY

This study investigates the media visibility of Indian public figures in politics, cricket, and cinema by analyzing 1,373 photographs published in five Kolkata-based newspapers between February 5 and 18, 2025. Using the Visibility Index by Sen and Munshi (2001), the study finds that political figures dominate media representation, accounting for over half of the total images-particularly Prime Minister Narendra Modi, who had the highest visibility. Cricket received moderate and more evenly distributed coverage, led by players like Rohit Sharma and Virat Kohli. In contrast, film personalities showed fragmented and event-driven visibility, with no single actor maintaining consistent presence. The results highlight a media landscape that is heavily personality-driven rather than domain-focused, with a few high-profile individuals receiving disproportionate attention. This skew toward political figures suggests an imbalanced portrayal in print media, raising questions about representational fairness and the increasing dominance of personality-centric narratives in Indian journalism.

REFERENCES

Bornmann, L., & Daniel, H.-D. (2008). What do citation counts measure? A review of studies on citing behavior. Journal of Documentation, 64(1), 45–80. https://doi.org/10.1108/00220410810844150

Garfield Library. (1968). Essays of an information scientist, 1(544 p.) (pp. 1962–1973). ISI Press.

Garfield, E. (1970). Citation indexing for studying science. Nature, 227(5259), 669–671. https://doi.org/10.1038/227669a0

Garfield, E. (1986). Do Nobel Prize winners write citation classics? Current Contents, 44, 3–7.[Publisher: Philadelphia: Institute of Scientific Information].

Garfield, E., & Malin, M. (1968, December 26–31). Can Nobel Prize winners be predicted? [Paper Presentation]. 135th Annual Meeting. American Association for the Advancement of Science.

Hirsch, J. E. (2005). An index to quantify an individual's scientific research output. Proceedings of the National Academy of Sciences of the United States of America, 102(46), 16569–16572. https://doi.org/10.1073/pnas.0507655102

Leydesdorff, L., & Milojević, S. (2015). Scientometrics. In International encyclopedia of the social and Behavioral Sciences (pp. 322–327). Elsevier. https://doi.org/10.1016/B978-0-08-097086-8.85030-8

Priem, J., Taraborelli, D., Groth, P., & Neylon, C. (2010, October 26). Altmetrics: A manifesto. https://altmetrics.org/manifesto or https://www.researchgate.net/publication/260282747_Altmetrics_A_Manifesto

Seglen, P. O. (1997). Why the impact factor of journals should not be used for evaluating research. BMJ, 314(7079), 498–502. https://doi.org/10.1136/bmj.314.7079.497

Sen, B., & Munshi, U. M. (2001). Visibility index of Indian political leaders, ILA Bulletin, 37(1), . 17–19.

Thelwall, M. (2008). Bibliometrics to webometrics. Journal of Information Science, 34(4), 605–621. https://doi.org/10.1177/0165551507087238

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