

# Applying Discourse Network Analysis in Journalism Studies: Exploring Digital Transformation Response

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## ABSTRACT

The digital transformation has reshaped the media industry, moving from traditional models to technology-driven approaches such as content personalization and direct-to-consumer (D2C) streaming. In journalism research, Discourse Network Analysis (DNA) has emerged as a novel method to map relationships among actors, discourses, and narratives across platforms. By integrating quantitative and qualitative approaches, DNA offers comprehensive insights into media discourse dynamics. In Indonesia, its application remains limited, addressing issues like gig economy policies, sexual violence, and peatland restoration. Supported by frameworks such as the Advocacy Coalition Framework and Collaborative Governance Theory, DNA enables the analysis of conflicts of interest, coalitions, and ideological shifts. However, Indonesian research often emphasizes quantitative approaches, overlooking qualitative insights essential for contextualizing discourse. Unlike linear-focused methods such as content or critical discourse analysis, DNA excels in the significant data era by processing large-scale social media content, integrating textual and relational data, and visualizing complex communication networks. This makes it particularly valuable for understanding how information flows and evolves, offering strategic insights into shifting communication patterns, media consumption behaviors, and audience engagement in the digital age.

**Keywords:** Discourse Network Analysis.; Digital Transformation; Discourse and Narrative; Journalism and Media; Traditional and Networks

## ABSTRAK

Transformasi digital telah merevolusi industri media, mendorong pergeseran dari model tradisional ke pendekatan berbasis teknologi seperti personalisasi konten dan layanan direct-to-consumer (D2C) streaming. Dalam kajian jurnalistik, Analisis Jaringan Wacana (Discourse Network Analysis/DNA) hadir sebagai metode inovatif untuk memetakan hubungan antaraktor, wacana, dan narasi di berbagai platform. Dengan menggabungkan pendekatan kuantitatif dan kualitatif, DNA memberikan pemahaman komprehensif terhadap dinamika wacana media. Di Indonesia, penerapan DNA masih terbatas pada isu-isu seperti kebijakan pekerja lepas, kekerasan seksual, dan restorasi gambut. Dengan dukungan kerangka teori seperti Advocacy Coalition Framework dan Collaborative Governance Theory, DNA mampu mengidentifikasi konflik kepentingan, pembentukan koalisi, serta pergeseran ideologi. Namun, pendekatan kualitatif sering kali terabaikan dalam penelitian di Indonesia. Berbeda dari metode linier seperti content analysis atau critical discourse analysis, DNA unggul dalam era big data karena dapat mengolah data besar dari media sosial, menggabungkan data tekstual dengan relasi antaraktor, serta memvisualisasikan jaringan komunikasi kompleks. Pendekatan ini memungkinkan pemahaman strategis terhadap aliran dan perkembangan informasi, serta implikasinya terhadap pola komunikasi, konsumsi media, dan partisipasi audiens di era digital.

**Kata Kunci:** Analisis Jaringan Wacana; Jurnalistik dan Media; Tradisional dan Jaringan; Transformasi Digital; Wacana dan Narasi

## INTRODUCTION

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Digitalization has fundamentally changed organizational work cultures in all sectors, including the media industry (Friedrichsen & Kamalipour, 2017). It has greatly affected some internal processes of the organization, causing changes and development to occur (Scott & Orlikowski, 2021). Within the transformation, the media industry has moved from existing business models towards new and innovative ways of working, products, and content formats (Waiswa, 2024). Media companies today are more adaptive, flexible, and astute in applying technology in response to growing market competition (Subekti *et al.*, 2024). In addition, this technology application has recently tended to break consumer and company relations. This consequently means that media organizations must be more audience-oriented to deliver enduring values.

A prominent trend in the digital revolution in the media sector is focusing on the audience and creating value through personalization. In this sense, media companies aim not only to seduce the audience but also to engage them by providing pertinent and convenient content (Waiswa, 2024). Now, the customization of services is integral to grabbing the audience's attention. Media firms catering to consumers' different content preferences and needs are well-positioned to guarantee long-term consumer relationships. This has necessitated the need for media firms to come up with algorithms that suggest the appropriate content to the audience (Wardani, 2023).

The emergence of Direct-to-Consumer (D2C) streaming technology has given birth to new content access and consumption (Yuliani & Kurniadi, 2023). With the D2C model, the viewers can have more control over the content and how they get it (Kawashima, 2020). In addition, customized services are important in customer acquisition and retention (Amanah, 2024). Thus, it is crucial for media companies to readjust their tactics to satisfy consumers' preferences, which are ever-becoming more complex and rapidly changing. Furthermore, the D2C trend allows media companies to sell content more efficiently by providing subscriptions and premium packages that suit the audience. This helps to reinforce the indirect supply of the content by the media companies through consumers' purchasing of the particular products. In the long run, this approach allows for stronger interaction modalities between media companies and consumers.

Digital transformation has also altered content distribution methods, transitioning from physical to digital formats. While previously, journalistic content was distributed through traditional channels such as newspapers, magazines, and films, the digital age has leveraged the internet to distribute news via platforms like YouTube, Facebook, Instagram, Twitter, and TikTok (Sumardi & Nashuha, 2024). These platforms enable rapid and mass distribution of content, creating broader reach and fostering direct interaction with audiences. This aligns with S. Shyam Sundar and Anthony M. Limperos' (2013) research on satisfaction with the navigability of online media, highlighting how modern media shapes new gratifications for users.

The shift from traditional media business models to digital has necessitated adjustments in distribution costs and communication methods, making audience interaction more dynamic and responsive (Friedrichsen & Kamalipour, 2017). Media companies are now focusing on engagement, the ability to retain audience attention through interactive content responsive to their interests (Redcomm, 2024). This also accelerates the development of analytics technologies that help companies understand content consumption trends, improve user experiences, and deliver more relevant and personalized information to their audiences.

As stated by Datareportal, Indonesia has emerged as the country with the most active internet users worldwide, with 167 million social media users, corresponding to 60.4 percent of the total population (Kemp, 2023). This is consistent with the results of Nielsen (2023), which indicate a 20% drop in the usage of TV sets in July of 2023 as younger audiences moved to watching streaming services, including YouTube and Netflix. This clearly shows the evolution of media consumption (Haudi, 2024). The evolving trends of audience habits and the diffusion of journalistic content in society have also become the focus of the postmodern transformations in journalism studies. Suppose previous journalistic research focused on discourse analysis in traditional media using discourse analysis, framing analysis, and critical discourse analysis approaches. In that case, digitalization has also changed the approach in conducting text or news research, especially in online media using big data. This is what is urgent in this research, seeing how the DNA method can be used as a new research method requiring big data.

Digital transformation has altered the approach to discourse analysis on digital platforms, which have distinct characteristics compared to traditional media. While traditional media focuses on the information presented, digital media focuses on the relationship between the audience and the media,

making this reciprocal interaction the central focus. In journalism studies, the relevance of DNA is in the ability to map discourse and actors by emphasizing the agreement and conflict of the discourse of each actor (Leifeld, 2013). Then, DNA is a mixed method that combines quantitative and qualitative data to obtain an in-depth analysis (Eriyanto, 2022). Finally, the benefit of DNA is that it reveals ideological conflicts and discourse coalitions that form the same network (Leifeld, 2013).

Therefore, this literature study aims to (1) examine how the structure of discourse networks in digital media reporting in Indonesia reveals ideological conflicts amid digital transformation; (2) identify key differences between traditional discourse analysis approaches and Discourse Network Analysis (DNA) in detecting bias and the dynamics of political communication; (3) evaluate the relevance of DNA as an innovative method in journalism studies; (4) explore current research trends in DNA application in Indonesia; and (5) outline the methodological framework and research workflow of DNA.

## METHODS

Systematic Literature Review (SLR) Methodology was employed in this study to construct a robust theoretical framework and to identify gaps in the literature concerning the application of DNA in journalism studies. The SLR method was chosen for its systematic approach to gathering, evaluating, and synthesizing relevant research findings. It offers a structured pathway to comprehensively map the evolution of DNA use, particularly within Indonesian journalism. The implementation of the SLR followed three interconnected phases: planning the review, conducting the review, and reporting the findings, ensuring a coherent and methodologically sound process to achieve reliable results (Campoverde-Molina *et al.*, 2023).

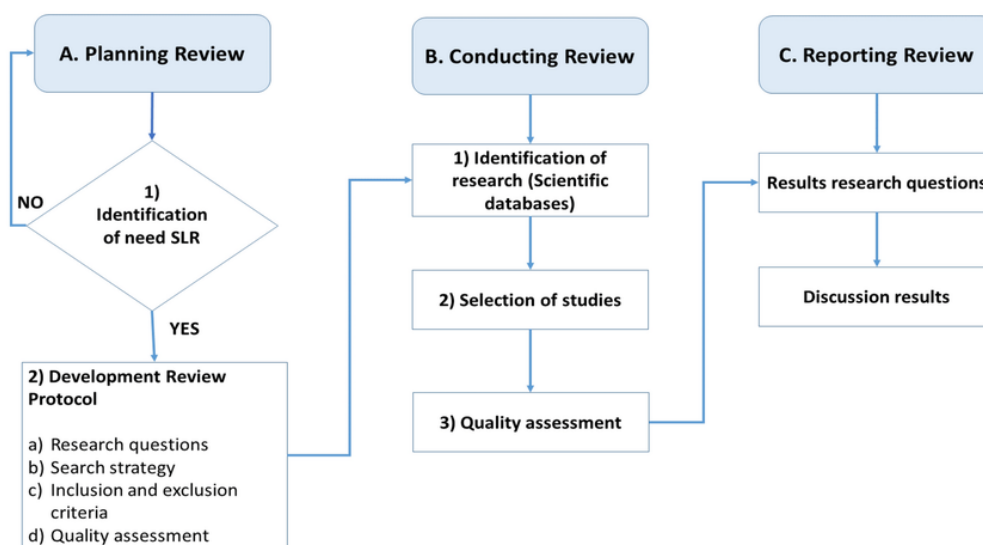


Figure 1. Flowchart of the SLR methodology  
Source: Campoverde-Molina *et al* (2023)

The initial step, Planning Review, starts with defining the need for the SLR. It requires evaluating how existing literature can respond to the stated main research problem. If the literature analysis reveals deficiencies, the next activity is to draft an appropriate review protocol. This protocol acts as a manual to help carry out the SLR. It includes several essential features: spatial scoping, developing specific research questions, formulating a detailed plan for the literature search, specifying criteria for selecting studies, and setting out plans for quality assessment. To ensure validity, the review protocol was developed through a pilot search and refined based on preliminary results. At the same time, reliability is maintained by standardizing the data extraction and quality evaluation procedures across multiple reviewers.

The search strategy was carefully designed to ensure the inclusion of relevant studies. The inclusion criteria, such as “Discourse Network Analysis” and “Discourse Network Analysis,” were combined with Boolean operators to maximize the breadth and depth of the search. Scientific databases such as the Garuda Portal and the Ministry of Education and Culture were used to retrieve high-quality

academic literature. Inclusion criteria were set to prioritize studies that explicitly discuss the application of DNA in journalism, both theoretically and empirically, while exclusion criteria filtered out irrelevant articles, such as those that lacked a transparent methodology or relied on unreliable data sources.

Table 1. Inclusion Criteria

Inclusion Criteria
Discourse Network, Discourse Network Analysis, Analisis Wacana Digital, Analisis Jaringan Wacana

The second phase, Conducting Review, consists of three critical steps: searching for relevant studies, selecting studies, and evaluating their quality. The identification step includes organizing search results from databases and performing the first screenings using abstracts and keywords. This step will ensure that only articles that meet the inclusion criteria are taken to the next step. In the selection stage, fully filtered articles that are relevant to the research questions are reviewed. The studies are critically examined in the context of how useful they are to the revision with respect to the use of DNA in genetic engineering and the main aim of the review. Then, a detailed quality evaluation is performed to test the articles' methods, reliability, and theory.

In the third phase, Reporting Review, the analysis and synthesis of the second phase are reported. This phase begins with the synthesis of key insights from the reviewed literature. Its purpose is to map out the evolving key themes, patterns of the use of DNA, and the areas that remain unchanging in the course of research. For instance, the review may show that DNA is mostly used to examine the games of contact between traditional media actors, leaving its application in social media research largely untouched. Such gaps are not only deficiencies but also directions for future research. Moreover, the synthesis defines the research objectives through an evidence-based approach to the relationship of DNA and the analysis of the dynamism of journalistic discourse, including opinion formation, information production and exchange, and media interaction.

The most important findings are examined in the discussion section, and the future research aspects are given in the review. For instance, the results may indicate a need to consider more widespread uses of DNA in Indonesia, especially in digital and social media, which continue to have an increasing impact on shaping views. This phase stresses that the SLR not only collates the studies done in the past but also justifies the need to develop new research strategies.

The overview can be represented visually in an SLR methodology diagram that depicts the systematic and interrelated activities of planning, conducting, and reporting the review. It is emphasized in this diagram that the methodical nature of the approach allows the reconstruction of the research process. Similarly, using such an approach, the paper provides a more integrated view of previous works relevant to developing the DNA approach in journalism studies.

Overall, the SLR methodology used in this study gives clear directions for the application of DNA while detecting essential omissions in the literature and making relevant suggestions regarding the future research direction. The systematic and orderly nature of the SLR practice promises the establishment of a sound theoretical base and the prospects for new research directions in journalism in Indonesia. Such an organized, well-structured, and deep process meets the highest academic requirements, enhancing the debate in the relevant field in a significant way. However, several limitations in the implementation of SLR could potentially affect the results of the study, including publication bias, limited data sources, selection bias, and subjectivity (Egger *et al.*, 2008).

## RESULT AND DISCUSSION

### Media Discourse Network: A Tool to Unveil Dynamics and Ideological Conflicts

In the context of a democratic society, journalism can be described as one of the most important branches that help to pass information and influence general opinion. It is important to understand how

media constructs reality in news reporting. Moving within the confines of journalism studies, discourse analysis helps understand media texts in their supplementation, production, and reception processes. Such an approach not only focuses on the messages themselves but also seeks the deeper hierarchy and ideology of power implicit in the communication process (Hassan, 2018). The media is sometimes where clashing ideological interests meet and struggle for recognition.

The notion of Media Discourse Network emerges as an important tool for understanding the relations between mass communication and ideology. It encompasses the relationship or interactions between a political actor, a mass media organization, and the people as parts of a complex network in which all the actors involved aim at producing and sharing discourse for particular purposes (Fergie *et al.*, 2019). In this regard, discourse analysis is important for exposing biases, assumptions, and social frameworks underpinning journalistic texts' constructs (Social Change UK, 2018). This perspective also explains how news framing works: how information is given over to influence a section of the population (Dijk, 2008).

As part of media coverage analysis, one of the main strengths of the Media Discourse Network is its ability to disclose relations and ideological contradictions that are otherwise disguised. By mapping out these networks, researchers can expose the connections that media agents, governments, and interest groups who hold opposing ideologies may conceal. Consider, for example, the case of discourse on regional autonomy policies in the province of Papua. The local media is already constructed as a battleground of regional, central, and international interests with various attempts to sway people's views in their favour (Sumirat & Eriyanto, 2023). This analytical perspective also emphasizes the social construction and reproduction of ideologies as one of the functions of the media.

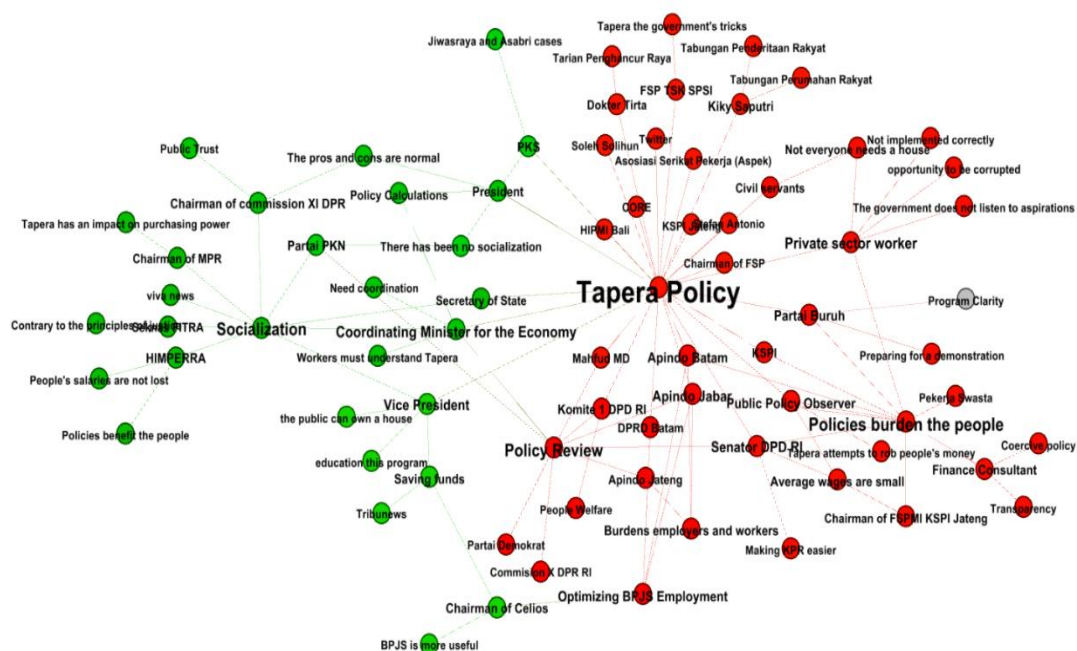


Figure 2. Tapera Discourse Coalition Fight in Online News  
(Source: processed researcher data based on Tapera news coverage in online media, 2024)

Public awareness is hugely influenced by certain discourses in mass media, as illustrated in how there are discussions on climate change or in the coverage of political changes (Wang & Huan, 2024). In journalistic studies, discourse analysis is instrumental in revealing how messages are delivered and interpreted. In particular, the following tasks are accomplished: (1) detecting media bias and ideology, because the media tells a story, it is bound to contain an angle that is shaped by some fundamental views (Xie, 2018; Auburn, 2023); (2) comprehending the concept of news framing, arguing that the way something is presented can affect how it is understood (Pan & Kosicki, 1993); (3) recognizing systems of domination because media representations both mirror and contribute to the structure of power in society (Dijk, 2016); (4) situating journalistic texts within broader sociocultural frameworks and

practices (Johnson, 2019); and (5) understanding the forms and formations of information in terms of content such as metaphor, word choice, and the structuring of narratives.

Figure 2 presents a concrete example of the application of DNA in the discourse battle related to government policy, namely TAPERA, which can form a discourse coalition that agrees (green) and a discourse coalition that opposes (red).

Looking at the media through the prism of the so-called discourse networks, one witnesses the competition between or the collaboration of opposing or allied ideologies, which would inform how society perceives social and political matters. Thus, media discourse is not limited to the function of communication only, but rather, it transforms into a tool that serves the purpose of upholding or displacing the existing power and ideological order of a society.

## Discourse Analysis: Traditional vs Network Approaches

In traditional approaches to discourse analysis, the emphasis is on the interplay of a text with particular social, cultural, and political practices. This approach investigates language deployment in terms of meaning construction and power relations within a text or a few texts in particular (Dijk, 2016). In contrast, Structural discourse analysis deploys a set of tools that allow for a quantitative depiction of the actors and ideas in a network but also focuses on the structural relations between the discursive units of the text (Leifeld, 2020).

Although customary methods tend to focus on the extensive study of single or limited numbers of texts, DNA expands the focus by looking at larger data sets that include networks of people, thoughts, and stories on different forms of communication, such as websites and social network sites. This also makes DNA very appropriate for research seeking to zoom out of the discussion dynamics in the studies.

In the context of traditional discourse analysis, this approach emphasizes qualitative strategies. These include semiotics, critical analysis, and hermeneutics. On the other hand, DNA uses software and algorithms to map out discourse networks and create quantitative information that can be statistically analyzed. This displays an area of basic conflict in how data are obtained and interpreted in the two methodological approaches.

In the digital age, however, discourse network analysis will be more useful because of its unique ability to study interactions on social networking sites, blogs, and news portals. Conversely, there are times when traditional discourse analysis cannot cope well with the scattered and diverse information available on digital platforms. This emphasis makes DNA an important tool for comprehending contemporary discourses (Eriyanto, 2022).

According to van Dijk's approach, traditional discourse focuses on understanding the meaning of the text, its linguistic features, and the social context of the text. However, in the case of Leifeld's approach, discourse network analysis emphasizes the relations between actors and ideas in the group and relations among actors and ideas. It takes a quantitative approach to identify trends and connections.

DNA has several advantages over traditional discourse analysis methods, especially when relations between discourses and actors must be systematically mapped. DNA allows the identification of complex relationships in various documents, forming a network that visualizes the interconnections between actors and ideas in a discourse (Leifeld, 2017). Combining category-based content analysis and social network analysis facilitates a more comprehensive understanding of the structure and dynamics of discourse (Eriyanto, 2022). In addition, DNA is very useful in research that focuses on government policies and public debates because it allows for the measurement of the level of trust in policies in a subsystem (Pratama & Ulfa, 2017). Another advantage is its methodological flexibility, which can be applied in various research contexts, including analyzing political debates, media discourses, and social interactions in the digital world. Overall, DNA is more advantageous when research requires a data-driven approach that can map discourse relations in social networks more in-depth and structured.

The table 2 presents a summary of the significant differences between discourse analysis, as defined by van Dijk, and DNA, as defined by Leifeld:

Table 2. Differences Between Traditional and Network Approaches

Aspects	Discourse: Traditional	Discourse: Network
Definition	The analysis focuses on the structure of the text, the relationship between language and power, and the social context.	Network-based quantitative analysis that maps the relationship between actors and concepts.
Main Focus	Meaning in texts and how language reflects power and ideology.	Relationships between actors, narratives, and concepts in a dynamic discourse network.
Methodology	Using qualitative approaches such as linguistic, semantic, and social context analysis.	Using quantitative tools and software to analyze and visualize data.
Unit of Analysis	Text structure (e.g., sentences, paragraphs) and other linguistic elements.	Nodes (actors or concepts) and edges (relationships between them) in the network.
Temporal Dimension	Lack of highlighting changes in discourse over time.	Mapping temporal dynamics namely changes in discourse over a certain period of time.
Purpose of Analysis	Uncover the ideology and power hidden in the text.	Identify coalitions, conflicts, and patterns of interaction in discourse networks.
Data Approach	It usually uses a limited amount of data and is focused on specific case studies.	Designed to analyze big data from multiple sources.
Digital Context	Less relevant for complex digital data, such as social media.	It is very relevant for digital data analysis and modern communication platforms.
Practical Applications	Cultural studies, critical linguistics, and media text analysis.	Policy analysis, political communication, and social change based on big data.
Limitations	Inefficient for big data analysis and less suitable for quantitative visualization of actor relationships.	Less exploratory in in-depth analysis of linguistic elements or textual meaning.
Implementation	Critical Discourse Analysis of Children’s Objectification of Sharenting Behavior on Risa Saraswati’s Instagram (Ramadhanti et al., 2023)	Discourse Network Analysis on News of Fuel Price Increases in the Susilo Bambang Yudhoyono Government in 2013 and the Joko Widodo in 2022 (Patria et al., 2024)

Source: Dijk (2008) and Leifeld (2020)

Discourse Network Analysis as an Innovative Method in Journalism Studies

DNA was developed to map and visualize stakeholders’ discourses, actors, agreements, and conflicts in shaping public narratives (Leifeld, 2013). In simpler terms, DNA specifies who (actors) says what (content/discourse). Since it combines discourse analysis and network analysis, DNA probes into how the relations of actors, concepts, and narratives are structured in the public domain (Eriyanto, 2022). With regard to journalism, DNA can be seen as an important element in understanding how media constructs and circulates discourse in more complex public spheres. It is emphasized that its central purpose is to identify the competing and supporting discourse networks exercised with respect to particular policies as they are represented in the media (Buckton *et al.*, 2019).

Media are not only places for spreading all kinds of information but also the field where ideologies and interests are brought to practice (Effendy *et al.*, 2019). DNA provides tools for following the transformation of discourse by various participants who create and distribute the stories of the news, like journalists, sources of the news, and the audience. The approach combines two central components:



discourse analysis, which provides for the content of the messages, and network analysis, which focuses on the structural relation between the actors or the concepts (Eriyanto, 2022). This combination enables journalism scholars to follow how particular ideas are interconnected and spread across different media.

In journalism, media agencies, global leaders, and civil organisations tend to control discussions to some extent (Qorib *et al.*, 2024). DNA is decisive in explaining the ties among these actors and how their political beliefs shape these statements. The technique employs VennMaker, Visone, and other such tools to present graphically the relational aspects of ideas or concepts that are often buried in the journalistic description (Buckton *et al.*, 2019). Such means furnish the structural particulars of the connections in a discourse, which always enriches the perception of the existing models.

The advantage of DNA in big data and social media analysis lies in its ability to map and visualize communication patterns on a large scale in a systematic way. DNA utilizes technology to identify relationships between actors, concepts, and discourses on social media platforms like Twitter, Facebook, and YouTube. This allows researchers to identify dynamic discourse trends in real-time and determine the main actors in disseminating information. It can also measure how much influence a narrative has on public opinion (Siagian, 2020). Compared to traditional discourse analysis, DNA can capture the complexity of digital interactions with discourse network visualization, making it easier to understand communication patterns and dynamic discourse changes (Marked *et al.*, 2021). Therefore, this approach can be useful for studies of digital-based journalism, political campaigns in online media, and analysis of propaganda or disinformation on social media, where information develops rapidly and involves many actors with different interests and motivations.

DNA is a novel solution designed to address the challenges faced by journalism scholars in the era of digitization for a number of reasons. Firstly, it integrates qualitative and quantitative techniques. DNA enables scholars to simultaneously perform a qualitative-oriented detailed analysis of narrative and the narrative's structure (qualitative approach) and to measure and map the relationships among entities in the text (quantitative approach) (Siagian, 2020). Such an approach brings a deeper insight into how a discourse is constructed and operates within the context of news. Secondly, it identifies actors and networks in discourse. DNA allows one to examine how actors and discourse are interconnected within a network (Leifeld, 2020). This facilitates a better understanding of how interactions function in journalistic texts. Thirdly, it cites that any discourse can be revisited and analysed at different periods. With the application of DNA, the evolution of the discourse over time can be detailed, and thus, it is possible to study the changes or development of concepts or stories about some specific themes (Markard *et al.*, 2021). Lastly, the limitations of discredited discourse analysis are also relatively easy to decode. DNA offers a different perspective in observing relationships that blur the scope of traditional discourse analysis (Eriyanto, 2022).

DNA is a method that integrates discourse analysis with network analysis to understand how ideas, actors, and concepts interact within a discourse. In the context of misinformation and disinformation in digital media, DNA can be employed to map and analyze the spread of false information and to identify the key actors involved. One application of DNA in disinformation studies is the analysis of network structures underlying content dissemination on social media platforms. For instance, by mapping how a particular narrative spreads and identifying which actors play a central role in its circulation, researchers can detect dissemination patterns and pinpoint individuals or groups with significant influence within the network. A study by Smith *et al.* (2021) showed that by combining natural language processing, machine learning, and network analysis, influential actors in disinformation campaigns on Twitter during the 2017 French presidential election can be identified.

In addition, multimodal analysis that combines various semiotic systems such as language, images, and sounds is also important in understanding misinformation and disinformation campaigns. A study by Hale (2023) highlights the importance of multimodal analysis in understanding disinformation efforts, as human communication often involves more than words. Using DNA, researchers can identify how disinformation ideas are structured and spread and understand the roles of key actors in the network. This approach allows for a more comprehensive analysis of the dynamics of the spread of misinformation and disinformation in digital media.

Researchers can see the bigger picture regarding discourse structure by visualizing discourse networks. Thus, discourse analysis and DNA can be considered of paramount importance to journalism studies as they allow for a more detailed and thorough assessment of the role of media in the construction and representation of social realities.



## Discourse Network Analysis Research Trends in Media Studies in Indonesia

In Indonesia, there seems to be a dearth of work around DNA. According to a search on the Garuda Portal, Ministry of Education and Culture, and the key phrases “Discourse Network Analysis” and its Indonesian counterpart “Analisis Jaringan Wacana”, only a small number of studies tackled this approach between the years of 1994 and 2024 (N=20). Even though DNA is connected to communication and media studies, it seems it has been losing traction among Indonesian scholars for the past three decades. Some of the trends that can be found in the DNA method in media studies in Indonesia include the following:

**Table 3. DNA Research Trends in Media Studies in Indonesia**

Author	Discourse	Network	Theory
Arifianto <i>et al</i> ( 2024)	Freelance Policy	Distributions News Media	Network Theory
Silalahi (2023)	RUU Elimination of Sexual Violence	Distributions News Media	Advocacy Coalition Framework
Alamsyah <i>et al</i> (2023)	Peat Ecosystem Restoration Policy	Replies and mentions on Twitter	Network Theory
Hidayah & Wahyunengseh (2021)	Geopark development discourse	Distributions News Media	Collaborative Governance Theory
Rosalia (2023)	Cancellation of Borobudur Temple Ticket Increase Policy	Distributions News Media	Discourse Coalition Theory
Arianto <i>et al</i> (2024)	President 3 Periods	Replies and mentions on Twitter	Network Theory
Khatami (2022)	President 3 Periods	Replies and mentions on Twitter	Public Sphere & Digital Activity
Handayani (2024)	Chemical Castration Punishment	Distributions News Media	Discourse Coalition Theory
Elislah (2023)	Election Postponement	Distributions News Media	Political Cynicism Theory
Pratiwi, Murtiningsih & Juliadi (2023)	Implementation of Integrated Value Creation (IVC)	Distributions News Media	Discourse Network Concept
Sofura (2023)	The Increase in Fuel Prices	Distributions News Media	Discourse Network Concept
Karter, Santoso & Saraswati (2023)	Oil Spill Case	Distributions News Media	Legitimacy theory
Hassapni & Kurniawan (2020)	Ship Sinking Policy	Distributions News Media	Discourse Network Concept
Sumirat & Eriyanto (2023)	Expansion of Papua	Distributions News Media	Discourse Network Concept
Bafadhal, Saraaswati & Handoko (2024)	Church Construction in Palembang	Distributions News Media	Discourse Network Concept
Yogatama (2023)	Maternity Leave Discourse	Replies and mentions on Twitter	Social Network Theory
Siagian (2020)	High-risk groups	Distributions News Media	Discourse Network Concept
Nagara (2021)	Tri Rismaharini	Replies and mentions on Twitter	Power Struggle
Berliana & Fitriyah (2022)	Polisi Virtual	Distributions News Media	Rhetoric Theory
Khazim, Kani & Aurora (2023)	Indovac vaccine	Distributions News Media	Sentiment

Source: Processing by Author (2024)

In the case of Indonesia in particular, the research on Indonesian DNA does not only concern the problem of policies for freelance workers or the policy on the elimination of sexual violence but also environmental issues such as peatland ecosystem restoration and oil spill cases. This variety emphasizes the great diversity of DNA methodology in explaining social, political, or ecological problems. However, the predominant focus of studies is still on analyzing discourse in news media or Twitter interactions, which makes it possible to extend the application of DNA to other platforms, such as Instagram, TikTok, or YouTube.

A considerable part of the research on DNA is based on analyzing news articles posted on the internet. For instance, Arifianto *et al.* (2024) examined discourses surrounding policies on freelance labor, while Rosalia (2023) examined the discourse on the policy regarding the cancellation of the increase in the ticket prices of Borobudur. This shows that there is still an over-reliance on online media for analyzing discourse networks, even if Twitter and other digital platforms are starting to be used to monitor more active exchanges.

Some researchers have begun using Twitter data to explore relationships and communication patterns between actors, as evidenced by Alamsyah *et al.* (2023) and Khatami (2022). The social network platform is useful in monitoring the interactions and the development of discourse, especially political ones, such as debates on the limits of the presidential term. This suggests that the public conversation space moves from conventional to social media.

Most DNA discussions and studies in Indonesia are on social and political issues. For instance, among them are works by Handayani (2024) on chemical castration policies and by Elislah (2023) on election postponement. These cases illustrate DNA's effectiveness in analyzing coalitions, conflicts of interest, and societal power relations. The role of DNA in the context of the ongoing digital transformation can be further explored, especially in terms of what changes in the communication structure are brought about by digitalization. This example can be seen from the studies of maternity leave by Yogatama (2023) and Khatami (2022) on the issues of digital activities. DNA can also be used to assess digitalization's impact on the public's level of discursive tendency.

In Indonesia's DNA Research context, several theories have been utilized, such as the Advocacy Coalition Framework (ACF), Collaborative Governance Theory, Social Sphere and Public Sphere and Digital Activity, and Legitimacy Theory. This shows the researchers' effort to integrate DNA with existing theories to understand further how discourse shifts and actor constellations are modeled. Such cross-cutting comparisons also create a potential for further enrichment of existing DNA methodologies.

In Indonesia, DNA studies are mostly quantitative. Such a method is applied in mapping the relations of actors and issues because of the discourse's frequency and dispersion. Although this methodology displays comparative data quite clearly, more macroeconomic synthesis drawing on the qualitative data collected is necessary to explain the context of the networks. International research, like in the case of Wallaschek *et al.* (2020), underlines the importance of reconciling the interpretation of certain discourses in the media reports using Habermas's public sphere theory. Buckton *et al.* (2019) also concentrate on the context level of the information placed in the media. Adopting such techniques may improve the scope and quality of DNA studies in Indonesia.

In Indonesia, the DNA method is still less popular for several reasons. First, this method tends to be used more in research in political science, especially in those related to government policies and state conflicts. This limits its application in other disciplines, such as communication (Pratama & Ulfa, 2017). In addition, Indonesia's limited literature and resources regarding DNA make local researchers less familiar with this method. Most DNA references and guides are available in English, which can be an obstacle for researchers who do not master the language. This limitation results in minimal adoption of DNA in research in Indonesia.

However, along with the increasing complexity of social and communication phenomena in the digital era, DNA has begun to gain attention as a potential method for analyzing various issues in Indonesia. Several recent studies have tried to apply DNA in local contexts, such as discourse analysis on Indonesia's People's Housing Savings (Tapera) policy (Pribadi *et al.*, 2024). Thus, although DNA has not been widely used in studies in Indonesia, there is potential for the development and application of this method in various research fields in the future.

The lack of popularity of DNA studies can be anticipated by efforts to encourage the use of this method in various fields. Especially in the field of political communication and public policy studies, several strategic steps can be taken. First, expanding the application of DNA into various research topics

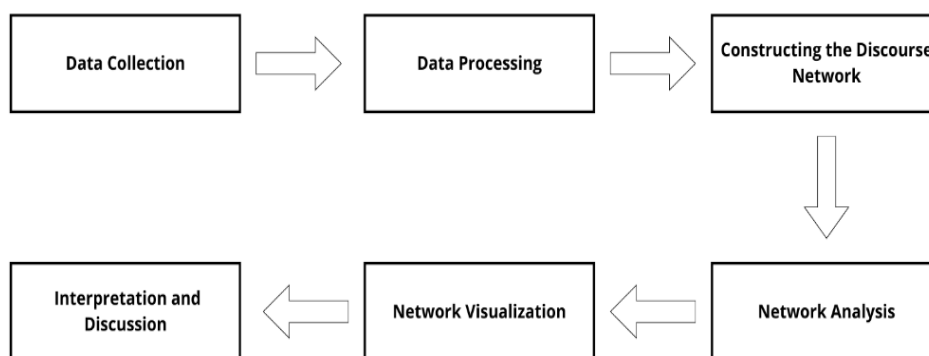
outside the traditional political domain, such as media discourse analysis, public opinion, and policy dynamics, will enrich methodological and applicative insights. For example, research on the digital rhetoric of the “Virtual Police” policy on CNNIndonesia.com has shown the potential of DNA in studying public policy issues (Berliana & Fitriyah, 2022).

Second, increasing the capacity of researchers through training and workshops on the use of DNA software, such as those conducted at Diponegoro University, will help researchers understand and apply this method effectively (Fisip Undip, 2024). Third, collaboration across disciplines and research institutions can expand the network of scholars utilizing Discourse Network Analysis (DNA), thereby promoting broader knowledge exchange and methodological innovation. For example, using DNA to analyze peatland restoration policies in Indonesia demonstrates the method’s applicability in environmental policy studies. By fostering interdisciplinary collaboration and applying DNA to diverse contexts, this approach can gain greater visibility and acceptance within political communication and public policy research in Indonesia, particularly as a response to the challenges of digital transformation.

### Method and Research Workflow of Discourse Network Analysis: From Data to Network Dynamics

DNA is a novel methodological approach that joins discourse theory and network analysis tools (Leifeld, 2020). With the help of this method, it becomes possible to study how actors, for example, individuals or entities like organizations, communicate and build stories in social, political, or policy domains (Eriyanto, 2022). The basic idea around DNA is that discourse is not just a database of individual terms or stories but a representation of what is happening amongst the actors in the society who are defending, opposing, or modifying prevailing assertions and ideas (Leifeld, 2017). In concentrating on the interconnections between the different discourse components that are changing over time, DNA also provides an elaborate structure within which one can study policy change, public opinion, or political communication strategies.

The world changes quickly, so social and political dynamics are often complex and difficult to understand simply through discourse analysis. DNA bridges this gap as it also maps out and explains the power relationships between the actors taking part, not only the content of the discourse. Such relationships form a network that transforms within a time frame, depending on the shifts in the power relations, coalitions, and conflicts that shape social and political change. From this point of view, DNA focuses on transmitting ideas, evaluating the power of important players in the processes, and transmitting control and diachrony of discourses and actions in particular situations (Leifeld, 2013). The following steps describe how the research employing DNA should be performed, and this emphasizes that such methodology is consistent, proficient, and capable of breaking through into the secrets of discourse dynamics.



**Figure 2. Flowchart of the DNA Research**

Source: Processing by Author (2024)

The first stage of the DNA examination is gathering related information regarding the discourse under analysis. In this sense, discourse is a verbal and nonverbal communication of people on a particular topic, policy, or issue. As such, the data sources for DNA can include but are not limited to,

recordings of interviews, articles, social media accounts, policy papers or reports, and the minutes of public hearings. It is crucial to choose relevant data sources so that the analysis of the discourses about the particular topic by the appropriate people and at the relevant periods is adequately carried out.

Data collection has to take into account the time aspects of discourse. Because discourse is a process that unfolds in time, researchers need to make sure that the data that has been collected embodies such alteration. Thus, from the perspective of climate change discourse research, the data should contain data from various actors, like government, non-government, private, and civil, so that the whole variety of discourses and their changes in different situations are analysed. The selection of representative data, in this case, is of great importance for a comprehensive understanding of the issue.

Once the data has been collected, the second step is to process the organized information. During this phase, the researcher scrapes the data by deleting the useless data elements and codes the text to show important players, claims, or central ideas. The researcher can do this manually or with the help of software applications like Discourse Network Analyzer, which systematically clarifies the interdependence between the discourse elements. The reliability of the coding is very important because the subsequent network analysis is based on the accuracy of encoded information.

Furthermore, it is desirable to validate the outcomes of the coding process to ensure that the identified discursive elements are indeed correct. It is important for scholars to verify that all relevant assertions are adequately recorded and that relationships among all subjects have been properly defined. High-quality coding is essential for successful network analysis and guaranteeing that the discourse network accurately represents the specific modes of interaction.

Having the coded data allows researchers to start building the actual discourse network. In the network, the edges connecting the nodes, which are representatives, claims, or main topics, substantively denote different relationships, such as support, opposition, or affiliation (Knoke, 2014). For instance, when two actors hold the same claim, they will be connected in the network through this claim. This network helps researchers see how the actors may be connected, for instance, in coalitions or conflicts. Furthermore, researchers need to clarify the parameters of the network, for example, temporal limits or the context of the discourse, to ensure that the created network applies to the aim of the research effort. Researchers may sometimes find it necessary to build several networks, for example, to focus on specific groups or themes and enrich the understanding of the interplay of discourse features.

After constructing the discourse network, the subsequent step is a structural network analysis. From the perspective of the second direction, several spanning discourse networks can be examined further to understand better how the constituent elements of the discourse operate and are interconnected. Some of the components of the metric include degree centrality, which measures how many other actors an actor is connected to; the betweenness centrality, which seeks actors that act as bridges between separate groups; and clustering coefficient, which estimates the degree to which nodes tend to cluster together (Saxena *et al.*, 2024). These metrics have their particular characteristics. They help analyze the continental structure of the discourse in terms of the construction processes of coalitions and the conflicts among the actors of the discourse, which shape the discourse. They also trace how the discourse network evolves over time, which is especially beneficial in analyzing how great debates and discussions on policies reshape over time and how the significance of great people within the discussions changes.

One of DNA's advantages is that complex networks can be visualized. Using software for network visualization, such as Gephi, the researchers are able to render images of the network that depict the actors and the claims made within the discourse. These visualizations help simplify understanding of the network structure and draw attention to chief features that could have been missed during a descriptive analysis (Freeman, 2000). Compelling visualizations can clear out which groups were the most decisive or what issues triggered the most heated disagreements within the discourse, and that is why such graphic representations are so functional when the results of the research are reported, especially to policymakers, scholars, or the public (Brandes & Wagner, 2004).

In the final stage of DNA, concentrated interpretation and discussions of the broader implications of the network analysis results are approached. In this context, the researchers look at how patterns of coalition building and conflict within the discourse network dynamics work, how the leading actors construct a public narrative, and how the changes in the discourse network may affect the policy or political decision. Such interpretation can certainly be enhanced by grounding the results and conclusions drawn in the relevant academic literature so as to bolster the validity of the findings and relate the outcomes to wider theories or concepts.

Additionally, researchers must be mindful of the practical implications their findings may have. For instance, changes in the discourse network may influence policies implemented by governments or international organizations. The roles and impacts of specific actors within the network also warrant careful consideration. Through in-depth interpretation, Discourse Network Analysis (DNA) not only provides insights into the structure and content of discourse but also serves as a valuable entry point for policy change or social intervention. Based on such analyses, researchers can propose informed and context-specific courses of action (Leifeld, 2013).

DNA presents a novel approach to studying discourse in a sophisticated and comprehensive manner. By applying qualitative discourse analysis alongside quantitative network analysis, DNA enables the researcher to examine the content of the discourse and the social structure of the actors producing it. This renders DNA particularly useful in analyzing political communication, policy processes, public opinion, etc.

Nonetheless, the analysis of DNA presents challenges as well, including a significant professional level in the use of network analysis software and proper coding practices that respect the scope of the data (Leifeld, 2017). Furthermore, data analysis processes can be relatively resource-intensive and time-consuming (Leifeld, 2013). However, the power of DNA to penetrate deeply into the dynamics of the discourse makes it possible for researchers to concentrate more on the social sciences, such as political science, communication science, and international relations. By tracing the forces and opinions that influence policy-making, DNA makes it easier to appreciate the transformations in political and social developments in our world today.

## CONCLUSION

This study contributes significantly to journalism and media studies by highlighting the potential of Discourse Network Analysis (DNA) as an innovative method for understanding the dynamics of discourse in the digital era. This study confirms that DNA can combine quantitative and qualitative approaches to map the relationship between actors, narratives, and ideologies in digital discourse. DNA is also proven superior in analyzing communication patterns and discursive coalitions compared to traditional methods such as critical discourse or content analysis. DNA can be an effective tool for journalists, academics, and policymakers to identify information dissemination patterns and understand political dynamics in digital media.

So far, the application of Discourse Network Analysis (DNA) in Indonesia remains limited, primarily addressing socio-political issues such as policies on freelance workers, sexual harassment, peatland restoration, and debates on presidential term limits. These studies highlight DNA's capacity to trace discourse dissemination, actor engagement across digital platforms, and their role in shaping public opinion and influencing policy. However, most research relies heavily on quantitative approaches, often overlooking the qualitative dimensions necessary to uncover deeper meanings in discourse. This methodological imbalance suggests a critical direction for future research that advocates for a more proportional integration of both approaches.

The policy relevance of DNA lies in its potential to inform digital media strategies and data-driven decision-making. DNA enables media practitioners to understand discourse development, identify key actors in information dissemination, and detect patterns of disinformation. In public policy, DNA serves as a tool for evaluating communication campaigns and designing evidence-based strategies. Thus, collaboration between researchers, media professionals, and policymakers is essential to expand the use of DNA in public discourse analysis.

DNA has become increasingly valuable in understanding the transformations brought by digitalization. Platforms like Twitter and YouTube allow DNA to capture discourse dynamics, trace actor coalitions and conflicts, and monitor discursive changes over time. In journalism, DNA provides insights into how news is framed and circulated in complex media environments, influencing audience engagement.

Nonetheless, DNA presents challenges. Its practical use requires technical expertise, costly analytical tools, and the ability to manage large datasets. The processes of coding data, mapping actor relations, and visualizing networks are essential for producing valid results. The limited adoption of DNA in Indonesia underscores the need to expand its application across diverse platforms, including Instagram, TikTok, and other emerging media.

Looking ahead, DNA research in journalism and media studies should broaden its scope to include these increasingly influential digital platforms. Integrating DNA with methods such as natural language processing and sentiment analysis could enhance analytical precision. Future efforts should also prioritize building the capacity of academics and media practitioners through training and developing more accessible software. These steps will help position DNA as a central methodology for examining the evolving landscape of digital communication.

## REFERENCES

- Alamsyah, A., Saraswati, E., & Ismail, R. G. (2023). Analisis Kebijakan Restorasi Ekosistem Gambut di Indonesia dengan Discourse Network Analysis. *Jurnal Ilmu Lingkungan*, 22(1), 69–78. <https://doi.org/10.14710/jil.22.1.69-78>
- Alya Dwi Yuliani, & Oji Kurniadi. (2023). Peranan Media Streaming dalam Menggantikan Televisi Konvensional di Kalangan Masyarakat. *Jurnal Riset Manajemen Komunikasi*, 3(2), 109–114. <https://doi.org/10.29313/jrmk.v3i2.3140>
- Amanah, D. (2024). Memenangkan Hati Pelanggan dengan Personalisasi Layanan. *Majalah SWA Online*. [https://www.researchgate.net/publication/381462114\\_Memenangkan\\_Hati\\_Pelanggan\\_dengan\\_Personalisasi\\_Layanan](https://www.researchgate.net/publication/381462114_Memenangkan_Hati_Pelanggan_dengan_Personalisasi_Layanan)
- Arianto, I. D., Ida, R., & Marijan, K. (2024). Discourse Communication Network Analysis of “3 Periode” on Twitter Social Media. *Jurnal Administrasi Publik*, 22(1), 2615–7268.
- Arifianto, C. F., Tajuddien, R., & Kustini, E. (2024). A Discourse Network Analysis : How are Freelancers in Indonesia Portrayed? *Journal of Business Management and Economic Development*, 2(01), 397–406. <https://doi.org/https://doi.org/10.59653/jbmed.v2i01.556>
- Auburn, L. (2023). *Study of headlines shows media bias is growing*. News Center Rochester. <https://www.rochester.edu/newscenter/study-of-headlines-shows-media-bias-growing-563502/>
- Bafadhal, O. M., Saraswaty, E., & Handoko, A. I. (2024). Konflik dan wacana media dalam pembangunan gereja di Palembang: analisis jaringan diskursus. *Jurnal Studi Komunikasi (Indonesian Journal of Communications Studies)*, 8(1), 217–226. <https://doi.org/10.25139/jsk.v8i1.6257>
- Berliana, D. R., & Fitriyah, P. (2022). Retorika Digital Kebijakan Politik “Polisi Virtual” Di Cnnindonesia.Com Menggunakan Metode Discourse Network Analysis. *BroadComm*, 4(2), 1–13. <https://doi.org/10.53856/bcomm.v4i2.238>
- Brandes, U., & Wagner, D. (2004). Analysis and visualization of social networks. In *Graph drawing software* (pp. 321-340). Berlin, Heidelberg: Springer Berlin Heidelberg.
- Buckton, C. H., Fergie, G., Leifeld, P., & Hilton, S. (2019). A discourse network analysis of UK newspaper coverage of the “ sugar tax ” debate before and after the announcement of the Soft Drinks Industry Levy. *BMC Public Health*, 19(490), 1–14. <https://doi.org/https://doi.org/10.1186/s12889-019-6799-9>
- Campoverde-Molina, M., Luján-Mora, S., & Valverde, L. (2023). Accessibility of university websites worldwide: a systematic literature review. *Universal Access in the Information Society*, 22(1), 133-168.
- Dijk, T. A. Van. (2008). *News , Discourse , and Ideology*. 191–204.
- Dijk, T. A. Van. (2016). Structures of Discourse and Structures of Power. *Annals of the International Communication Association*, 12(1), 18–59. <https://doi.org/https://doi.org/10.1080/23808985.1989.11678711>
- Effendy, M. H., Efendi, A. N., & ... (2019). Media Sosial sebagai Platform Penyampaian Ideologi Keagamaan. *Proceedings of the 3rd International Conference on Islamic Studies (ICONIS) 2019*, 1–16.
- Egger, Matthias & Dickersin, Kay & Davey Smith, George. (2008). Problems and Limitations in Conducting Systematic Reviews. 10.1002/9780470693926.ch3.
- Elislah, N. (2023). Discourse Network Analysis on Delaying Elections in President Joko Widodo ’ s era. *Jurnal ASPIKOM*, 8(2), 225–240. <https://doi.org/https://doi.org/10.24329/aspikom.v8i2.1255>
- Eriyanto. (2022). *Analisis Jejaring Wacana* (Nita NM (ed.); Pertama). PT Remaja Rosdakarya.

- Fisip Undip. (2024). Pelatihan Discourse Network Analysis (DNA) Software untuk Mahasiswa S3 Administrasi Publik. <https://dap.fisip.undip.ac.id/pelatihan-discourse-network-analysis-dna-software-untuk-mahasiswa-s3-administrasi-publik/>
- Fergie, G., Leifeld, P., Hawkins, B., & Hilton, S. (2019). Mapping discourse coalitions in the Minimum Unit Pricing for alcohol debate: A discourse network analysis of UK newspaper coverage. *Addiction*, 114(4), 741–753. <https://doi.org/10.1111/add.14514>
- Freeman, L. C. (2000). Visualizing social networks. *Journal of social structure*, 1(1), 4.
- Friedrichsen, M., & Kamalipour, yahya. (2017). *Digital Transformation in Journalism and News Media*. Springer International Publishing.
- Handayani, R. (2024). Discourse Network Analysis of Chemical Castration Punishment Pros and Cons in Online Media. *Communicatus: Jurnal Ilmu Komunikasi*, 8(April), 63–86. <https://doi.org/10.15575/cjik.v8i1.33516>
- Hassan, A. (2018). Language, Media, and Ideology: Critical Discourse Analysis of Pakistani News Bulletin Headlines and Its Impact on Viewers. *Sage Open*, 8(3), 2158244018792612. <https://doi.org/10.1177/2158244018792612>
- Hassapni, W., & Kurniawan, R. (2020). Kajian Kebijakan Penenggelaman Kapal Pelaku Illegal Fishing Dengan Discourse Network Analysis. *Seminar Nasional Official Statistics*, 2019(1), 49–58. <https://doi.org/10.34123/semnasoffstat.v2019i1.115>
- Haudi. (2024). The Impact Of Digital Transformation On Consumer Behavior And Marketing Strategies. *International Journal Of Economic Literature*, 2(1), 167–179.
- Hidayah, S. A., & Wahyunengseh, R. D. (2021). Collaborative Governance Untuk Pengembangan Sustainable Green Tourism Sebagai Upaya Pengentasan Kemiskinan (Discourse Network Analysis pada geopark . kebumenkab . go . id ). *Jurnal Mahasiswa Wacana Publik*, 1(2), 431–444.
- Johnson, M. (2019). Using sociocultural discourse analysis to analyse professional discourse. *Learning, Culture and Social Interaction*, 21, 267–277. <https://doi.org/https://doi.org/10.1016/j.lcsi.2019.04.003>
- Karter, T. F., Santoso, A. D., & Saraswati, E. (2023). Environmental Crisis and Legitimacy Struggle : A Discourse Network Analysis in the Prabumulih Oil Spill Case. *Jurnal Komunikasi Indonesia*, 12(2). <https://doi.org/10.7454/jkmi.v12i2.1203>
- Kawashima, N. (2020). Changing Business Models in the Media Industries. *Media Industries Journal*, 7(1). <https://doi.org/10.3998/mij.15031809.0007.105>
- Kemp, S. (2023). *Digital 2023: Indonesia*. <https://datareportal.com/reports/digital-2023-indonesia>
- Khatami, M. I. (2022). Discourse Network Analysis (DNA): Aktivisme Digital dalam Perdebatan Isu “Presiden Tiga Periode” di Twitter Discourse Network Analysis (DNA): Digital Activism in the “Three-Term President” Debate on Twitter. *Jurnal Audience*, 5(01), 80–94.
- Khazim, I. Al, Kani, K. N. A., & Aurora, O. (2023). Sentiment of Indovac Vaccine Launch News on Detik . com Using Discourse Network Analysis. *Digital Media Communication*, 02(1), 37–50.
- Knoke, D. (2014). Policy networks. In the *SAGE handbook of social network analysis* (pp. 210-222).
- Leifeld, P. (2013). Reconceptualizing Major Policy Change in the Advocacy Coalition Framework: A Discourse Network Analysis of German Pension Politics. *Policy Studies Journal*, 41(1), 169–198. <https://doi.org/10.1111/psj.12007>
- Leifeld, P. (2017). Discourse network analysis. *The Oxford handbook of political networks*, 301-326.
- Leifeld, P. (2020). Policy debates and discourse network analysis: A research agenda. *Politics and Governance*, 8(2), 180–183. <https://doi.org/10.17645/pag.v8i2.3249>
- Markard, J., Rinscheid, A., & Widdel, L. (2021). Analyzing transitions through the lens of discourse networks: Coal phase-out in Germany. *Environmental Innovation and Societal Transitions*, 40, 315–331. <https://doi.org/https://doi.org/10.1016/j.eist.2021.08.001>
- Nagara, G. (2021). *Peran Kapital pada Media Sosial : Analisis Jaringan Sosial Pertarungan Kuasa Wacana Tri Rismaharini di Twitter*. 8, 64–90.
- Nielsen. (2023). *Laporan Pemasaran Tahunan Nielsen 2023*. [www.Nielsen.Com](http://www.Nielsen.Com).
- Pan, Z., & Kosicki, G. (1993). Framing Analysis: An Approach to News Discourse. *Political Communication - POLIT COMMUN*, 10, 55–75. <https://doi.org/10.1080/10584609.1993.9962963>
- Patria, N., Irawanto, B., & Abrar, A. (2024). Discourse Network Analysis on News of Fuel Price Increases in the Susilo Bambang Yudhoyono Government in 2013 and the Joko Widodo in 2022. *Komunikasi Ikatan Sarjana Komunikasi*, 9(2), 502–523.



- Pratiwi, M., Gigih, D., Sri, B., Murtiningsih, E., & Juliadi, R. (2023). JURNAL KOMUNIKASI PROFESIONAL Discourse Network Analysis pada Stakeholder dan Integrated Value Creation dalam CSR Bank Mandiri. *Jurnal Komunikasi Profesional*, 7(2), 256–274.
- Pribadi, F., Bakry, G. N., & Nugroho, C. (2024). Discourse Network Analysis Of Tabungan Perumahan Rakyat ( TAPERA ) In Online Media Coverage. *ARRUS Journal of Social Sciences and Humanities*, 4(6), 729–734.
- Qorib, F., Kristie, E., & Hakim, L. (2024). Analysis of the Use of Constructive Journalism in the News' Police Shoot Police'in the Online Media Tirta. id. *Kanal: Jurnal Ilmu Komunikasi*, 13(1). <https://doi.org/10.21070/kanal.v13i1.1796>.Analysis
- Ramadhanti, G. A., Hidayat, D. R., & Yudhapramesti, P. (2023). Analisis Wacana Kritis Objektivikasi Anak Perilaku Sharenting di Instagram Risa Saraswati. *Komunikologi: Jurnal Pengembangan Ilmu Komunikasi Dan Sosial*, 7(2), 150.
- Redcomm. (2024). *Engagement di Media Sosial: Pengertian, Jenis dan Metriknya*. Redcomm.Co.Id. <https://redcomm.co.id/knowledges/engagement-adalah>
- Rosalia, F. (2023). Discourse Battle on Borobudur Temple Tariff Increase Policy in Discourse Analysis Network. *Jurnal Komunikasi*, 17(1), 62–75.
- Saxena, A., Fletcher, G., & Pechenizkiy, M. (2024). Fairsna: Algorithmic fairness in social network analysis. *ACM Computing Surveys*, 56(8), 1–45.
- S. Shyam Sundar; Anthony M. Limperos. (2013). Uses and Grats 2.0: New Gratifications for New Media. *Journal of Broadcasting & Electronic Media*, 57(4), 504–525. <https://doi.org/https://doi.org/10.1080/08838151.2013.845827>
- Scott, S., & Orlikowski, W. (2021). The Digital Undertow: How the Corollary Effects of Digital Transformation Affect Industry Standards. *Information Systems Research*, 33(1), 311–336. <https://doi.org/https://doi.org/10.1287/isre.2021.1056>
- Siagian, T. H. (2020). Corona Dengan Discourse Network Analysis. *Jurnal Kebijakan Kesehatan Indonesia*, 09(02), 98–106.
- Silalahi, E. (2023). Analisis Jaringan Wacana pada Pembentukan UUTPKS di Media Daring. *Jurnal Riset Komunikasi*, 6(2), 34–49. <https://doi.org/10.38194/jurkom.v6i2.812>
- Smith, S. T., Kao, E. K., MacKin, E. D., Shah, D. C., Simek, O., & Rubin, D. B. (2021). Automatic detection of influential actors in disinformation networks. *Proceedings of the National Academy of Sciences of the United States of America*, 118(4). <https://doi.org/10.1073/PNAS.2011216118>
- Social Change UK. (2018). *An introductory guide to qualitative research analysis*. 1–7. [https://social-change.co.uk/files/Knowledge\\_Hub\\_-\\_qualitative\\_research\\_analysis.pdf%0Ahttps://social-change.co.uk/blog/a-brief-guide-to-qualitative-research-analysis](https://social-change.co.uk/files/Knowledge_Hub_-_qualitative_research_analysis.pdf%0Ahttps://social-change.co.uk/blog/a-brief-guide-to-qualitative-research-analysis)
- Sofura, A. M. (2023). Discourse Network Analysis: Studi Kasus pada Kebijakan Kenaikan Harga Bahan Bakar Minyak (BBM) Pertamina. *Jurnal Komunikatif*, 12(1), 37–50. <https://doi.org/10.33508/jk.v12i1.4526>
- Subekti, R., Ohyver, D. A., & Judijanto, L. (2024). *Transformasi Digital (Teori & Implementasi Menuju Era Society 5.0)* (Erfina Rianty (ed.); Pertama). PT. Sonpedia Publishing Indonesia.
- Sumardi, E., & Nashuha, A. N. (2024). *Transformasi Konten Berita Pada Media Digital BUMNTrack Dalam Mencapai Bisnis Berkelanjutan*. 24(1), 39–47.
- Sumirat, P. A., & Eriyanto. (2023). Koalisi Wacana dalam Debat Pemekaran Papua : Analisis Jaringan Wacana Debat Pemekaran Tiga Provinsi Baru di Papua. *Jurnal Riset Komunikasi*, 6(14), 1–20. <https://doi.org/https://doi.org/10.38194/jurkom.v6i2.739>
- van Dijk, T. A. (2024). Discourse, Knowledge, Context. *RESEARCH IN PRAGMATICS*, 3(3 SE-Articles), 1–7. <https://journal.pragmaticsng.org/index.php/r/article/view/17>
- Waiswa, E. (2024). *Exploring the challenges and opportunities of digital transformation in media organizations : a case of nation media*. The Aga Khan.
- Wallaschek, S., Starke, C., & Brünig, C. (2020). Solidarity in the public sphere: A discourse network analysis of German newspapers (2008–2017). *Politics and Governance*, 8(2), 257–271. <https://doi.org/10.17645/pag.v8i2.2609>
- Wang, G., & Huan, C. (2024). Negotiating climate change in public discourse: insights from critical discourse studies. *Critical Discourse Studies*, 21(2), 133–145. <https://doi.org/https://doi.org/10.1080/17405904.2023.2198725>
- Wardani, S. (2023). Transformasi Interaksi Bisnis Dan Konsumen Dalam Era Digital. *Jurnal Tadbir Peradaban*, 3(2), 26–35.

Xie, Q. (2018). *Critical Discourse Analysis of News Discourse*. 8(4), 399–403.

Yogatama, A. N. (2023). Maternity Leave Discourse – Social Network Analysis. *Journal of Global Business and Management Review*, 05(1), 15–29. <https://doi.org/10.37253/jgbmr.v5i1.7335>