
Muted Group in Algorithms : A Comparative Study of 'Janda' (Widow) Stigmatisation and 'Duda' (Widower) Glorification on Google Trends

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ABSTRACT

Digital transformation in Indonesia does not necessarily dismantle patriarchal cultural structures but instead replicates them within cyberspace. Digital footprints on search engines reflect deep-seated gender biases, where post-separation marital status is interpreted unevenly between men and women. This study aims to compare the search patterns of the keywords 'Janda' and 'Duda' on Google Trends Indonesia and to uncover the muting mechanisms operating within search algorithms using the perspective of Muted Group Theory. This research employs a descriptive qualitative approach with data mining techniques on the *Related Queries* feature over the last 12 months. Data were analyzed using Qualitative Content Analysis through the stages of immersion, coding, and thematic categorization. Research findings show extreme semantic disparities. The keyword 'Janda' is dominated by themes of stigmatisation, sexuality, and the commodification of gambling, indicating the mechanisms of Ridicule and Control at work. Conversely, the keyword 'Duda' is dominated by themes of popular culture glorification (*duda wattpad*) and positive socio-economic status attribution (*duda kaya / wealthy widower*), showing Semantic Elevation. This study concludes that algorithms act as active agents that amplify gender bias, placing women in the position of a muted group while men remain in control as dominant subjects in digital narratives.

Keywords: *Muted Group Theory; Google Trends; Algorithmic Bias; Gender Disparity; Janda and Duda.*

INTRODUCTION

Digital transformation in Indonesia has fundamentally reshaped communication perspectives, making cyberspace the primary arena for modern social interaction (Setiawan et al., 2022). Although often regarded as a democratic and egalitarian space, digital migration does not necessarily dissolve long-existing hierarchical cultural structures. This occurs because communication systems and linguistic norms within a culture, whether offline or online, are

essentially formulated and controlled by groups holding dominant power (Kramarae, 1981). Conversely, the deeply rooted patriarchal culture in Indonesia has shifted and been amplified within the digital ecosystem. Rather than being an agent of liberation, internet technology has proven to reinforce gender-biased values and potentially perpetuate dominant perspectives through algorithmic mechanisms that replicate social prejudice (Setiawan et al., 2022).

This phenomenon of inequality is clearly reflected in the disparity of social treatment toward post-separation marital status recorded in digital traces. In the sociological reality of society, there is a sharp dichotomy between the identity construction of men and women. The status of Duda (widower) is often associated with positive images such as stability, maturity, or the opportunity to begin a new chapter of life (Sofyan et al., 2021). On the other hand, the status of Janda (widow) remains in a position highly vulnerable to negative stereotypes, cultural stigmatisation, economic vulnerability, and degrading sexual objectification (Rahmawati and Hanum, 2020, Rusdi et al., 2020). Societal culture tends to perpetuate patriarchal power by providing higher social space and moral tolerance to widowers, compared to widows who are frequently labeled as a disgrace, temptresses, or moral threats to other family institutions (Sofyan et al., 2021). This sociological imbalance, which previously only occurred in verbal conversations, is now eternally and massively recorded digitally through information-seeking behavior on the internet.

To dissect the anatomy of such inequality, a critical analytical framework capable of highlighting the power relations hidden behind language usage is required. Muted Group Theory (MGT), which is rooted in anthropological thoughts on muted groups (Ardener, 1975) and systematically developed within communication science (Kramarae, 1981), offers a highly relevant perspective. This theory postulates that language is not a neutral entity but rather a man-made language that functions strategically to control and limit the movement of sub-dominant groups. Kramarae (1981) asserts that mastery over linguistic structures allows the dominant group to name and define reality according to their experience, which results in the experiences of women, particularly widows, being unarticulated, ignored, or positioned in a muted status within the public sphere.

In the context of the information era and Big Data, the definition of language has evolved into search keywords. Referring to the concept of Algorithmic Oppression, those who control narratives, databases, and keyword associations in search engines essentially hold control over the social definitions of those groups (Noble, 2018). Therefore, Google Trends cannot be viewed merely as a collection of quantitative statistical data, but must be seen as a mirror of society that reflects the collective psychology of the community honestly and without social filters. This search data becomes valid empirical evidence to test MGT premises in the 21st century. If the search results for the keyword Janda are dominated by sexual, vulgar, or pejorative queries while the keyword Duda tends to be neutral or positive, then this confirms that algorithms trained by historical patriarchal data work to replicate and amplify the silencing of women through the mechanism of the male gaze (Mulvey, 1975). Based on the urgency of the phenomenon described above, the main problem examined in this study is how keyword associations and search volumes on Google Trends reflect the muted position of the female identity with widow status compared to men with widower

status who occupy the position of the subject. This study aims to elaborate on the phenomenon of gender stigmatisation and semantic derogation occurring algorithmically, as well as to prove the relevance of Muted Group Theory in analyzing power imbalances in the digital era. Through this study, it is expected to reveal how technology that should be neutral instead becomes a new tool in preserving traditional gender hierarchies.

LITERATURE REVIEW

Language does not merely function as a passive communication tool but is a fundamental instrument that actively shapes, limits, and defines the social reality of society. From a sociolinguistic perspective, the words chosen by society to label certain groups reflect the prevailing value structures and power hierarchies. This is clearly seen in the terminology related to post-separation marital status in Indonesia. Etymologically, the Great Dictionary of the Indonesian Language (KBBI) defines Janda and Duda in equivalent and gender-neutral positions as individuals who no longer have a life partner due to divorce or death (Badan Pengembangan dan Pembinaan Bahasa, 2016).

However, the neutrality of this lexical definition collapses when confronted with a sociological reality laden with patriarchal cultural constructions (Rahmawati and Hanum, 2020, Rusdi et al., 2020). In Indonesian social practice, there is a sharp disparity between the meaning of widow and widower status (Rahmawati and Hanum, 2020, Rusdi et al., 2020).

The status of Janda often undergoes significant semantic derogation or a decrease in perceived value. Rusdi et al. (2020) in their research on public perception found that the label of widow does not just refer to administrative civil status but has transformed into a social stigma. Women bearing this status are often attached to stereotypes of economic vulnerability, failure in building a household, and negative labeling as a temptress or a threat to the stability of other people's households. Widows face a double burden, besides losing the social and financial protection attached to the institution of marriage, they also become targets of moral discipline and sexual objectification in the community (Rahmawati and Hanum, 2020).

Popular culture phenomena further exacerbate this condition through the use of demeaning terms such as *janda bolong*, *janda kembang*, or *janda muda* (Sofyan et al., 2021). These terms emphasize how female identity is reduced to an object of ridicule, sexual fantasy, or mere visual commodity rather than being seen as a whole human being. Consequently, widow status becomes a label that marginalizes women from social honor, placing them in a psychologically and sociologically vulnerable position in society (Rahmawati and Hanum, 2020).

This contrasts significantly with the status of Duda which often enjoys gender privileges within patriarchal social structures. A widower rarely experiences a degradation of social status equivalent to a widow. On the contrary, they are often associated with images of maturity, economic stability, and high bargaining power to restart relationships known as remarriage ability (Sofyan et al., 2021). The absence of negative labels for widowers comparable to the stigmatisation of widows confirms the existence of semantic double standards where language and social perception work to protect the image of men while simultaneously marginalizing and controlling the bodies and identities of women. The absence

of negative labels for widowers comparable to the stigmatisation of widows confirms the existence of semantic double standards. This imbalance indicates that language does not operate in a value-neutral space but is tied to power relations. To analyze how linguistic structures are used to perpetuate this gender dominance, this study uses the Muted Group Theory framework.

Muted Group Theory (MGT) is rooted in social anthropological critiques put forward in ethnographic studies of social structures. Initial findings showed that in social structures, women are often positioned as a muted group (E. Ardener, 1975, S. Ardener, 1975). This muteness is fundamentally not caused by women's physical inability to produce sound or speak but rather by the reluctance of the dominant structure to hear, acknowledge, or validate their reality of experience which differs from male norms (E. Ardener, 1975). The dominant group creates a model of social reality based on their own worldview, so the experiences of sub-dominant groups that do not fit that model are considered worthless and ultimately go unrecorded in history or mainstream culture.

This theory was then fundamentally developed and elaborated into the discipline of Communication Science through the seminal work *Women and Men Speaking*. In this book, MGT was developed into a critical analysis framework that views language as an effective tool of social control (Kramarae, 1981). The main premise is that language is a man-made language where men hold full control over public modes of expression, from dictionary definitions to media narratives (Kramarae, 1981). This condition creates significant structural barriers for women, to participate in social discourse and be heard in the public sphere, they are forced into a process of translation or encoding of their unique experiences into a language framework created by men. Consequently, if women fail to adjust to these dominant communication standards, their aspirations tend to be considered irrelevant, irrational, or entirely sidelined from public discourse (Kramarae, 1981).

Furthermore, this power imbalance in language is based on the assumption that the perceptions of women and men toward the world differ due to rigid gender-based divisions of labor where men dominate the public sphere of politics and economy and women are domesticated in the private sphere. To perpetuate this dominance, the dominant group uses three main silencing mechanisms against marginal groups (Kramarae, 1981).

There are three basic assumptions explaining power imbalance in language, namely differences in experience due to gender-based division of labor, male dominance over social order and hierarchy, and the role of language in shaping social reality (Kramarae, 1981). Additionally, specific strategies used by dominant groups to silence marginal groups have also been identified and serve as primary indicators in this research (Kramarae, 1981), which are:

1. **Ridicule:** The dominant group labels women's experiences with trivializing terms or turns them into vulgar jokes. The goal is to reduce women's authority so their voices are not taken seriously.
2. **Control:** The dominant group controls communication channels and word definitions. They determine what is considered important for public display, often placing women under the control of male definitions.

3. Objectification/Harassment: Treating women as mere sexual objects instead of equal subjects.

These three mechanisms serve as crucial indicators for analysing how both spoken and digital language are utilised to maintain the patriarchal status quo. The relevance of Muted Group Theory within the digital ecosystem has not diminished, rather, it has transformed into more subtle control mechanisms. Whilst in the conventional era, silencing occurred through the control of spoken language and print media, in the information age, this silencing is realised through Algorithmic Bias, which produces Digital Stigma (Noble, 2018).

In the context of research regarding the comparison of the keywords Janda and Duda, the concept of man-made language (Kramarae, 1981) finds new relevance in search engine algorithms. If previously dictionary editors or mass media acted as traditional gatekeepers defining the image of women, that role has now been taken over by non-neutral algorithmic systems. Google Trends algorithms work by replicating the historical data of patriarchal societies (Noble, 2018) and prioritizing search results based on the logic of the Male Gaze (Mulvey, 1975). The Male Gaze describes how the camera lens places the viewer in the position of an active heterosexual male while women are positioned solely as passive objects for visual pleasure known as scopophilia (Mulvey, 1975). In the digital ecosystem, this mechanism is adopted by search engines that implicitly assume the standard user is male. Consequently, when keywords related to women are entered, algorithms tend to present content that satisfies male desires, making female identity a visual spectacle or commodity object rather than a subject with human needs or a complete life narrative.

The dominance of masculine perspective in algorithms then triggers a linguistic phenomenon called Semantic Derogation (Schulz, 1975). In patriarchal linguistic structures, words referring to women tend to decrease in value and become negative or sexually connoted over time, a pattern clearly visible in the shift of the meaning of the word Janda in search engines. Conversely, words referring to men tend to experience Semantic Elevation (Schulz, 1975). This is evident from the association of the word Duda which often undergoes a glorification of social status, where the term does not shrink in meaning but rather increases in bargaining value as a symbol of stability or experience. The disparity produced by these machines confirms that technology does not just reflect reality but actively preserves a gender hierarchy where men remain the definer and women are the defined.

Operationally, this bias creates Digital Stigma as a new muting mechanism. This phenomenon is evident in Google Trends results where the keyword Janda often experiences automatic semantic degradation through autocomplete features with sexual tones. This drowns out narratives of women's independence under the noise of sensationalist content. In contrast, the keyword Duda is consistent with positive associations, proving that algorithms work to protect men while perpetuating women's position as objects.

Based on the theoretical explanation above, the following is a visualization of the conceptual framework explaining the flow of digital muting in this study.

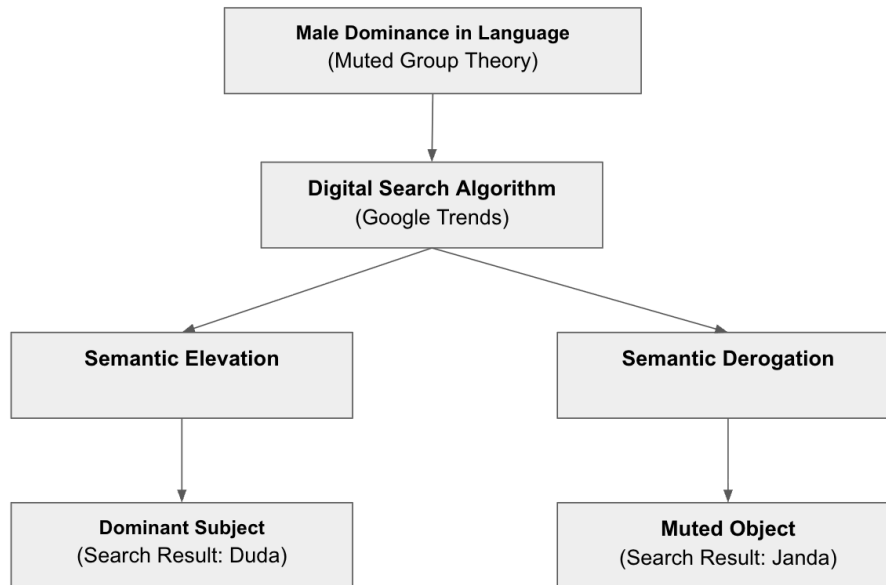


Figure 1. Conceptual Framework Visualization.

METHODOLOGY

This research applies a qualitative descriptive approach by utilizing secondary data. The qualitative approach was chosen because this study aims to explore and understand the meanings attributed by individuals or groups to a social or humanitarian problem rather than merely measuring numerical variables (Creswell and Creswell, 2018). The nature of this research is hybrid, combining comparative and explanatory dimensions. Comparatively, the study compares the search characteristics between the keywords ‘Janda’ and ‘Duda,’ while explanatorily, the study explains the muting phenomenon and gender bias recorded in search algorithms using the Muted Group Theory perspective.

The object of this research is the digital information seeking behavior of internet users in Indonesia. The primary unit of analysis is the text or phrases that appear in the Related Queries feature of Google Trends. The problem scope in this study includes search data with Indonesia as the location and the “All” category within the last 12 months (December 2024 to December 2025) to obtain a current overview of trends.

Data collection procedures were conducted through data mining techniques on the Google Trends website by entering the search terms ‘janda’ and ‘duda’ comparatively to extract relevant datasets. In order to meet the principles of transparency and public data validity, the raw downloaded dataset in .csv format has been archived and stored publicly in the Zenodo scientific repository with the DOI link: doi.org/10.5281/zenodo.17844904. This allows the data to be verified and accessed again by the academic community.

Data analysis techniques were performed using the Qualitative Content Analysis method (Kleinheksel et al., 2020). The analysis procedure adopts systematic stages including immersion or data deepening, coding or assigning meaning labels, categorizing or thematic grouping, and thematic interpretation or interpretation using theory (Kleinheksel et al., 2020). The coding stage was carried out by assigning meaning labels to specific keywords, which were then grouped into major themes to be analyzed using the Muted Group Theory analytical lens.

To ensure the credibility of the findings, data validity was strengthened using source triangulation techniques by comparing secondary data findings against relevant literature and social contexts (Oleinik, 2011). Triangulation was conducted to ensure that the stigma appearing in the search data is an accurate reflection of existing social reality. The entire research flow from collection to data interpretation is visualized in Figure 1 below.

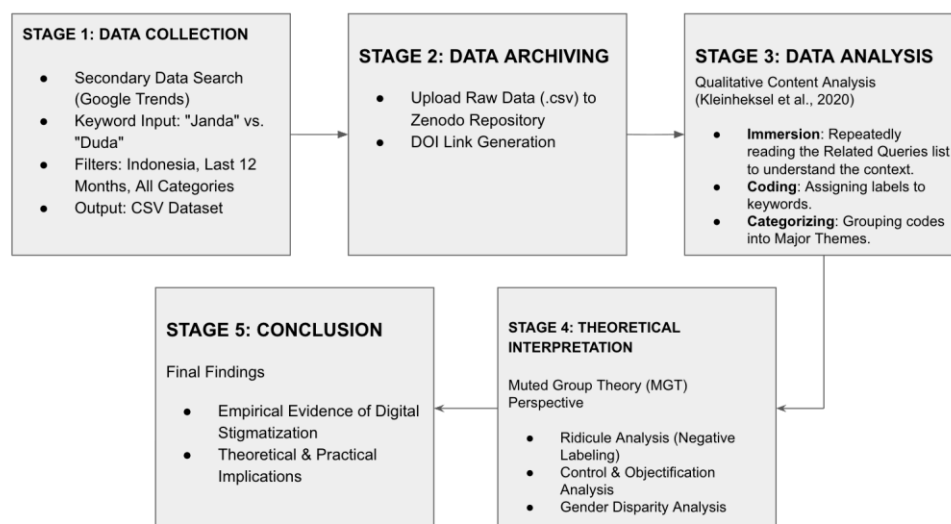


Figure 2. Research Flowchart

This study has several limitations that must be acknowledged to maintain the objectivity of the findings. Firstly, the unit of analysis is limited to the surface level, specifically the texts and phrases appearing in the 'Related Queries' feature of Google Trends. Consequently, this research has not been able to conduct an in-depth analysis of the visual or textual content on the destination websites generated by these queries, such as the bodily visualisations on gambling site landing pages. Secondly, the use of Google Trends data is macro-level and representative of the collective search behaviour of the Indonesian public in general, therefore, it cannot explain the specific psychological motivations or personal intentions of individual users. Thirdly, whilst the data reflects a clear gender bias, this study has not yet performed empirical validation through social psychology surveys to measure the extent to which exposure to such automated search suggestions influences users' cognitive perceptions in the real world.

RESULTS AND DISCUSSION

Based on the data extraction from the Google Trends Related Queries feature, association patterns were found to converge into three main thematic categories. The coding process of the top 25 queries shows that the narrative surrounding 'Janda' is dominated by the themes of sexuality, gambling commodification, and General Search.

The theme that most dominates search volume is sexuality. As seen in Table 1, the appearance of the queries stw (Setengah Tuwir or Middle Aged) and janda stw are generally categories of adult films or equivalent to the milf definition. These findings indicate a specific search pattern directed toward the fetishization of widows. Furthermore, queries focusing on body visualization such as janda cantik (beautiful widow), janda pirang (blonde widow), and foto janda (widow photo) also appear consistently, confirming that the primary search intent is visual consumption.

The Online Gambling Commodification theme is a significant and unique finding in this research, specifically the massive use of the word 'Janda' for branding needs within the online gambling ecosystem. The query janda slot appears followed by its derivative variants such as janda gacor, janda gacor slot, and janda togel. This data reveals the fact that the word 'janda' has undergone a contextual shift in meaning, from a marital status to a marketing keyword used to attract traffic to illegal sites such as online gambling. The term gacor (easy to leak or win) which is closely attached to the janda query demonstrates a double association between gambling victory and the conquest of women.

The third thematic category groups queries that are casual or general searches. The data shows that the word 'janda' has a broad usage beyond the context of marital status, frequently attached as the name of an object or a popular culture product. This is evident from the high search volume for the query sop janda which refers to a specific culinary item. Sop Janda is a restaurant that sells beef soup and beef satay. Additionally, there are searches for janda bolong which is the name of an ornamental plant variety (*Monstera adansonii*). Furthermore, this word also appears in the context of entertainment and locations, such as in the queries kampung janda and pantun janda. These findings indicate that the word 'janda' has become part of the popular vocabulary used fluidly to label various objects in the daily life of the community. The complete distribution of the 'Janda' query thematic categories can be seen in Table 1 below.

Table 1. Query Theme Distribution for 'Janda' on Google Trends

Theme	Queries
Sexuality	Janda muda, janda stw, janda cantik, janda pirang, foto janda
Commodification of Gambling	Janda slot, janda togel, janda 4d, janda slot login, janda gacor, janda gacor slot
General Research	Janda bolong, pantun janda, Sop Janda

Significantly different from the search patterns for the keyword ‘Janda,’ which are dominated by sexual connotations and gambling, the search perspective for the keyword ‘Duda’ presents a far more positive narrative. Based on the analysis of the queries, it was found that the associations of meaning attached to widowers are centered on three main themes, namely glorification and romance, economic status, and general searches.

Data indicates that the keyword ‘Duda’ has a strong attachment to popular culture (pop culture) products. As shown in Table 2, the query ‘duda araban’ is a viral dangdut song title on social media, representing the figure of a widower as a romantically attractive character worthy of celebration. The high search volume for ‘lirik duda’ (widower lyrics) and ‘lagu duda’ (widower song) further reinforces the fact that widower status is consumed by the public as narrative and cheerful entertainment material rather than as material for vulgar mockery.

In addition to music, widowers are also constructed as central figures in digital literacy, marked by the high frequency of ‘duda wattpad’ queries. Wattpad is defined as a social storytelling platform that enables massive interaction between writers and young readers in producing popular fiction (Ramdarshan Bold, 2018). Within this ecosystem, specific searches for the ‘duda’ label indicate high reader interest in positioning widowers as protagonists. This is evident from the proliferation of popular story titles themed “Duda CEO” which depict widowers as mature, wealthy, and romantically dominant male figures.

This positive narrative is strengthened by the emergence of the ‘film duda’ query. This finding is interesting when compared to the reality of the Indonesian film industry, where the word ‘janda’ is often exploited in the horror erotica genre, such as in the films *Hantu Janda Bolong* or *Janda Kembang*. In contrast, searches for ‘film duda’ lead to family drama or romantic comedy genres that highlight the humanistic side of a single father, such as the films *Menduda* or *Duren Jatuh*. This indicates that the narrative of a widower’s life is considered to have dignified cinematic value and is marketable as a life drama rather than just an object of visual sensation.

The second thematic category relates to the labeling of physical attributes and economic status with a positive tone. Unlike the physical labeling of widows which tends to be vulgar, the labeling of widowers leads toward praise or glorification. The data shows consistency in the appearance of the queries ‘duda keren’ (cool widower), ‘duda kaya’ (wealthy widower), and ‘duda ganteng’ (handsome widower). Additionally, the term ‘duren jatuh’ (an acronym for Duda Keren) experienced a surge in search trends. This indicates a public perception that associates widower status with economic stability and physical attractiveness that actually increases with age.

The third thematic category is educational and neutral. Internet users tend to search for literal definitions or word equivalents without any demeaning tendencies. This is visible in the queries ‘duda adalah’ (a widower is), ‘arti duda’ (meaning of widower), ‘duda bahasa inggris’ (widower in English), and ‘apa itu duda’ (what is a widower). Table 2 below summarizes the distribution of dominant themes in searches for the keyword ‘Duda’.

Table 2. Query Theme Distribution for 'Duda' on Google Trends

Theme	Queries
Glorification & Romanticism	Duda wattpad, film duda, lagu duda, duda araban, duda keren, duda ganteng, duren jatuh (Duda Keren)
Economic Status	Duda kaya
Pencarian Umum	Arti duda, duda adalah, apa itu duda, duda bahasa inggris

Table 3. Search index scores represent relative search interest on a scale from 0 to 100. Data processed from Google Trends (2024-2025).

Related Query	Index Score
janda muda	100
janda slot	78
stw	68
janda stw	68
janda cantik	61
janda gacor	60
janda twitter	55
janda gacor slot	50
sop janda	36
janda bolong	26
janda adalah	21
kampung janda	21
foto janda	20
janda kembang	19
janda togel	17
janda 4d	14

Related Query	Index Score
janda	100
duda araban	99
janda duda	99
lirik duda	74
duda araban lirik	59
lagu duda	54
duda wattpad	29
duda adalah	22
tahun duda	20
arti duda	18
duda keren	12
duda bahasa inggris	12
duda kaya	12
foto duda	10
film duda	9
duda ganteng	8

The data findings in this study demonstrate that search engine algorithms do not merely categorise information, rather, they replicate systematic muting mechanisms against women whilst simultaneously reinforcing male authority. The extreme disparity between the search patterns for 'Janda' and 'Duda' reveals how gender bias operates through two opposing semantic poles.

Semantic Disparity: Derogation vs Elevation

The data indicates an extreme phenomenon of Semantic Derogation (Schulz, 1975) regarding the word 'Janda'. This is clearly evidenced by the dominance of queries such as *janda gacor* and *janda slot*. The term 'gacor' (*Gampang Bocor*), which is

essentially a technical term within the online gambling ecosystem (Prayudi, 2024), undergoes a semantic shift towards biological and sexual connotations when attached to the identity of a widow. From the perspective of Muted Group Theory, this constitutes a form of Ridicule and Objectification (Kramarae, 1981), wherein the female body is reduced to a ‘clickbait’ object to manipulate the visual desires of a male audience (Prasetyo & Kristiyono, 2024).

Conversely, for the keyword ‘Duda’, a phenomenon of Semantic Elevation (Schulz, 1975) occurs. This term experiences a significant increase in social value through queries such as *duda wattpad*, *duda araban*, and *duda kaya*. Unlike ‘janda’, which suffers from a derogation of meaning, the status of a widower is instead associated with financial stability, maturity, and authority. In search algorithms, the status of a widower is translated into a symbol of romantic appeal that increases with age, rendering it an idealised figure sought after within digital literacy narratives.

Subject vs Object Positions in Digital Narratives

The comparison between ‘Duda Wattpad’ and ‘Janda Slot’ reveals a sharp disparity in subject positioning. Men (widowers) are consistently constructed as active protagonist subjects. Within fictional ecosystems such as Wattpad, widowers are granted narrative space to possess a past, successful careers (e.g., ‘Duda CEO’), and complex emotions. They are individuals who maintain control over their own destinies.

Conversely, women (widows) are positioned solely as commodity objects. Searches related to widows are almost entirely detached from human narratives or life struggles. No queries were found indicating public interest in the emotional aspects or the existence of widows as human beings, instead, what is presented is merely the body as pornographic visuals (*janda stw/photos*) or their identity hijacked as branding for illegal gambling sites. Here, the voices of women are truly silenced (muted), as their existence is only recognised insofar as they can satisfy the visual desires or gambling urges of the dominant group.

Trivialisation and Social Power in Humour

The mechanism of Ridicule is also evident in the popularity of queries such as ‘pantun janda’ and ‘sop janda’. Algorithms record that society feels entitled to a certain social power to utilise the status of a widow as material for verbal jests or branding gimmicks. The case of ‘sop janda’ (an acronym for *Sop Jawa-Sunda*) serves as a perfect example of trivialisation (Kramarae, 1981), wherein the complex social burdens of a widow are reduced to a mere punchline or a food label.

This disparity is evidenced by the absence of similar queries such as ‘pantun duda’. This further proves that language and humour within the digital space operate with bias, men are shielded by social prestige, whilst widows are left vulnerable to mockery without significant social consequences.

Synthesis: The Male Gaze within the Big Data Ecosystem

This disparity validates the operation of the 'Male Gaze' concept (Mulvey, 1975), which has now been adopted by search engines. Google's algorithms do not act neutrally, instead, they function as intermediaries for patriarchal cultural biases by prioritising content that exploits the female body for the sake of high click-through rate (CTR) values (Noble, 2018). This process creates a feedback loop: social stigmata are input by users and subsequently validated by the machine as 'popular suggestions', which then construct a digital reality that further marginalises women.

Based on the analysis above, this study formulates a conceptual model regarding the workings of Muted Group Theory in the Big Data era. Search engine algorithms do not act neutrally but serve as providers of access for patriarchal cultural bias. Although search inputs come from users, the algorithm works by replicating that historical data and then reapplying it through automated suggestions and search rankings. This process creates a feedback loop pattern, where the negative stigma against widows, which was originally a social input, is validated by the machine into a 'popular suggestion,' which then directs public perception to continue consuming those narratives. Thus, technology does not merely reflect reality but participates in constructing a digital reality that marginalizes women.

CONCLUSION

Based on the comparative and explanatory analysis conducted, this study concludes that search algorithms reflect sharp gender disparities through the mechanisms of Semantic Derogation (reduction of meaning) for women and Semantic Elevation (elevation of meaning) for men (Schulz, 1975). Conceptually, these findings confirm the relevance of Muted Group Theory within the digital ecosystem, where the 'Janda' (widow) identity undergoes systematic muting. This silencing occurs through two primary mechanisms identified by Kramarae (1981): Ridicule, which is evident in the trivialization of widow status into vulgar jokes such as 'janda bolong' or 'sop janda', and Control, seen in the exploitation of widow identity by the gambling industry through queries like 'janda slot' and 'janda gacor'. In this context, women lack the power to define themselves and are instead redefined by exploitative political-economic interests.

Conversely, the 'Duda' (widower) identity is constructed as a dominant subject glorified in popular culture narratives. The high search interest for 'duda wattpad' or 'duda kaya' (wealthy widower) indicates that men hold full control as protagonists whose value is judged by their socio-economic stability and romantic appeal. Thus, Google Trends algorithms are proven to be non-neutral, rather, they serve as conduits for patriarchal bias that transform social stigma into permanent digital data. This technology positions women as passive objects to be continuously consumed, while men remain protected within a masculine digital linguistic structure.

Theoretically, this research suggests that Muted Group Theory should be further developed in a multidisciplinary manner, extending beyond oral language analysis to encompass the technocultural ecosystem. If Kramarae (1981) views language as a tool of social control, then future studies must dissect how programming codes function as a 'new language'

with the power to silence marginalized groups. Subsequent researchers are recommended to view algorithms not merely as passive mirrors reflecting culture, but as active non-human actors with interests in shaping new social realities (Noble, 2018, Tronnier et al., 2024). The development of this theory is crucial for analyzing feedback loop mechanisms, where biased user input and automatic machine output reinforce each other, creating a cycle of stigmatisation that is difficult to break without intervention at the level of technological architecture.

From a methodological perspective, this study recommends a more holistic approach to address the limitations of qualitative text analysis on search queries. Since this research only focuses on the surface level (keywords), future studies are encouraged to conduct in-depth analyses of visual and textual content on the destination sites of those queries (for instance, analyzing the visualization of female bodies on gambling site landing pages). Furthermore, referring to recent developments in digital research methodology (Prasetyo & Kristiyono, 2024), a Mixed Methods approach incorporating social psychology surveys is highly recommended. This aims to empirically validate whether repeated exposure to biased search queries truly influences users' cognitive perceptions and exacerbates real-world gender prejudice.

This research formulates systematic implications for three main stakeholders:

1. **Regulators (Ministry of Communication and Digital):** These findings provide input for blocking policies to go beyond simply closing gambling sites. The government also needs to regulate the 'entry points' to these sites, namely search suggestion features (autocomplete) on Google. Regulators should urge platform providers to remove automatic keyword suggestions that contain elements of harassment or objectify women as promotional tools for gambling, ensuring that negative stigmas are not continuously presented to internet users.
2. **Technology Companies (Platform Providers):** Transparent and periodic algorithmic audits are required to detect and eliminate gender bias. Technology developers have an ethical responsibility to ensure that popularity metrics or click-through rates (CTR) do not sacrifice the dignity of vulnerable groups. Algorithms must be retrained with more inclusive datasets to avoid reproducing past stereotypes.

Civil Society and Activists: The results of this study provide an empirical foundation for critical digital literacy movements. Public education is essential to raise awareness among users that terms like 'janda stw' or 'janda gacor' are not harmless, casual jokes, but rather forms of active participation in a culture of silencing. The public must be encouraged to build digital literacy by refusing to click on or share content that demeans women, thereby breaking the chain of algorithmic popularity.

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