



LEXICAL, SEMANTIC, AND CONTEXTUAL ANALYSIS OF *THE JUNGLE BOOK* BY RUDYARD KIPLING

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Abstract

*This study offers a digital analysis of *The Jungle Book* by Rudyard Kipling (1894) through lexical, semantic, and contextual analysis by using Voyant Tools. The main objective of the research is to investigate how Kipling's language, imagery, and recurring expressions contribute to the thematic core of the narrative. By identifying the word frequency, patterns, and contextual use of words, the study highlights the linguistic structures that shape ideas of nature, civilization, identity, and survival. The research follows the digital humanities framework, combining traditional literary interpretation with computational text analysis. After converting *The Jungle Book* into a digital corpus, the text is analyzed into Voyant Tools to conduct word frequency counts, keyword-in-context (KWIC) exploration, collocation studies, and thematic mapping. Through these tools, major terms such as "jungle," "law," "man," and "pack" emerge as key lexical items reflecting the moral and social hierarchies of the story world. The semantic relationships among these terms reveal Kipling's symbolic view of order and chaos, while contextual patterns illustrate how the protagonist, Mowgli, negotiates between human and animal realms. The findings suggest that Kipling's vocabulary not only facilitates storytelling but also encodes ideological and moral perspectives, demonstrating how nature and culture interact within the text. The analysis confirms that Voyant Tools provide a systematic and visual way to interpret literary meaning, linking quantitative data with qualitative understanding. The conclusion emphasizes the relevance of digital textual analysis for modern literary studies, particularly in reinterpreting classic narratives through linguistic and thematic dimensions.*

Key Words: *The Jungle Book, Voyant Tools, Lexical analysis, Semantic analysis, Contextual analysis, Digital humanities.*



1.1 Introduction

In recent years, the integration of digital tools in literary studies has opened new possibilities for analyzing texts. Instead of relying only on traditional close reading; researchers made an attempt to combine computational methods with interpretive reading to uncover new dimensions of meaning. This blend of qualitative and quantitative approaches is the essence of digital humanities. Voyant Tools, has emerged as an accessible and effective medium for visualizing and analyzing linguistic patterns in large textual corpora. Rudyard Kipling's *The Jungle Book* (1894) provides a rich opportunity for digital analysis because of its symbolic language, colonial undertones, and moral teachings. The collection of stories about Mowgli and the jungle world has fascinated readers for generations. Through lexical, semantic, and contextual analysis, this research aims to reveal how Kipling's word choices and thematic patterns construct a world where animals represent human emotions, societies, and power structures. By applying Voyant Tools to this text, the study demonstrates how digital methods can enhance literary understanding and reveal deeper meanings hidden within Kipling's narratives.

1.2 Background of the Study

In recent decades, the field of literary research has witnessed a major transformation with the rise of Digital Humanities (DH) an interdisciplinary approach that merges technology with humanistic inquiry. Instead of relying solely on close reading, DH introduces computational methods that allow researchers to explore texts through measurable patterns, visualizations, and linguistic evidence. According to Rockwell and Sinclair (2016), DH bridges computational analysis and human interpretation, providing new insights into how language, structure, and meaning operate in literary works. Tools such as Voyant make this process accessible by helping researchers visualize word frequency, collocations, and thematic trends across entire texts, transforming reading into a data-driven exploration.

Berry and Fagerjord (2017) describe DH as a "dialogue between code and culture," emphasizing how digital tools reshape the way scholars engage with literature and culture. This perspective encourages the use of digital text analysis not only to interpret narratives but also to uncover ideological and linguistic patterns that traditional approaches might overlook. Similarly, Yan, Li, and Liu (2023) explain that DH has evolved beyond its early focus on digitization to include complex linguistic and cultural interpretation, revealing how texts encode identity, power, and ideology. The integration of computational tools has thus made literary analysis more systematic, transparent, and globally accessible. However, while these studies establish a strong foundation for computational approaches in literary research, they rarely apply such methods to specific texts, especially within colonial or moral frameworks.

In this emerging research landscape, Rudyard Kipling's *The Jungle Book* (1894) offers an ideal text for digital analysis because of its symbolic language, colonial setting, and moral undertones. The collection of stories portrays a deep relationship between humans, animals, and the laws of nature making it rich for lexical, semantic, and contextual exploration. Traditional literary criticism has analyzed the work from colonial, moral, and psychological perspectives; however, little attention has been given to its linguistic construction through computational approaches. This research gap highlights the need to re-examine *The Jungle Book* through a digital humanities perspectives. Through Voyant Tools, researchers can identify recurring lexical items such as *law*, *man*, *jungle*, and *pack*, revealing how Kipling's language conveys moral order, authority, and



civilization. Therefore, this study situates *The Jungle Book* within the framework of Digital Humanities to demonstrate how computational methods enhance literary interpretation. By combining lexical, semantic, and contextual analysis, this research explores how Kipling's vocabulary contributes to thematic and ideological meanings. This data-supported approach not only bridges traditional criticism and digital analysis but also strengthens the empirical foundation of literary studies by transforming textual reading into a measurable and interpretable process. To further support this claim, the following table summarizes key literature and identifies the research gap that this study aims to address.

Table 1. Review of the previous studies

No	Author/s	Year	Topic	Findings	Literary Gaps
1	Rockwell & Sinclair	2016	Integration of computational methods in Digital Humanities	Explained how computational analysis complements human interpretation and helps visualize textual patterns.	Focused on general DH methods, not applied to specific literary texts like <i>The Jungle Book</i> .
2	Berry & Fagerjord	2017	Digital Humanities as a dialogue between code and culture	Emphasized how digital tools reshape literary and cultural interpretation.	Did not analyze how these tools uncover ideological or moral dimensions in specific literary works.
3	Yan, Li & Liu	2023	Evolution of DH toward linguistics and culture interpretation	Highlighted how DH reveals identity, power, and ideology in texts.	No application to colonial or moral themes in Kipling's writings.
4	Kipling, Rudyard (The Jungle Book)	1894	Literary text selected for digital analysis	Provides rich symbolic, moral, and colonial themes suitable for computational exploration.	No prior digital or computational linguistic analysis applied to this text.

As shown in Table 1, recent studies by Rockwell and Sinclair (2016), Berry and Fagerjord (2017), and Yan et al. (2023) establish the importance of computational and cultural approaches within Digital Humanities. However, these works mainly discuss general methods and do not apply them to specific literary texts such as *The Jungle Book*. This gap highlights the need for the present research, which uses Voyant Tools to analyze Kipling's language and themes through lexical, semantic, and contextual perspectives.

1.3 Rationale of the Study

The rationale of this research is to connect conventional literary criticism with modern computational analysis. Although, *The Jungle Book* has been studied widely from colonial, moral,



and psychological perspectives, little attention has been paid to its linguistic construction through digital analysis. In today's digital age, technology plays a central role in how knowledge is produced, stored, and shared. Literary studies are no longer limited to printed texts; they now include digital corpora that can be explored through visualization and computational tools. The increasing use of digital platforms such as Voyant Tools reflects how the digital world is transforming the study of language and literature. By using such tools, researchers can observe hidden linguistic patterns and thematic connections that are impossible to detect through manual reading. This integration of digital analysis with traditional interpretation reflects the shift of humanities into a technologically enhanced global context. By employing Voyant Tools, this study serves as a bridge between humanistic inquiry and machine-assisted analysis, offering new insight into how meaning is built and distributed across the text.

1.4 Research Questions

1. What are the most frequently occurring lexical items in *The Jungle Book*?
2. How do these frequently used words reflect the central themes of nature, civilization, and identity?
3. What semantic relationships exist formed among key terms such as “law,” “man,” “pack,” and “jungle”?
4. How does the contextual use of vocabulary reveal Kipling's underlying moral and colonial perspectives?

1.5 Purpose of the Study

The primary purpose of this study is to examine *The Jungle Book* through the perspective of digital humanities by applying Voyant Tools for lexical, semantic, and contextual analysis. It seeks to uncover how Kipling's choice of words and stylistic patterns build symbolic meaning and moral lessons in the narrative. Through this digital approach, the study aims to link quantitative textual evidence with interpretative literary understanding. By integrating computational tools within the digital research environment, this study reflects how modern literary scholarship evolves in response to technological innovation and global accessibility.

1.6 Significance of the Study

This study contributes to both literary criticism and digital humanities. It presents digital text analysis as a modern and interactive approach to studying classical works, making literature more interactive and data-informed. For students and researchers, it serves as an example of how Voyant Tools can be applied to identify linguistic and thematic patterns that often remain hidden through traditional reading. By combining computational techniques with literary insight, this work promotes a deeper and more innovative understanding of Kipling's *The Jungle Book*. In the broader digital world, this study demonstrates how technology can extend human creativity and critical thinking rather than replace them. It encourages the use of open-access tools and online archives, helping researchers participate in a global academic community. By integrating digital literacy with literary inquiry, the research aligns with the evolving direction of modern scholarship in the 21st century.



2. Literature Review

The field of literary studies has undergone a major shift through the introduction of digital technologies that support deeper and more systematic textual exploration. Digital Humanities has become a bridge between traditional close reading and computational textual analysis, enabling researchers to observe language patterns, thematic structures, and stylistic design in ways that are not possible through manual reading alone (Burke, 2022). Scholars argue that DH encourages a data-supported interpretative approach where technology enhances rather than replaces human critical thinking (Hayles, 2021). This approach strengthens the scientific foundation of literary studies by transforming narrative interpretation into an evidence-based practice (Biber & Egbert, 2023).

One of the important contributions of Digital Humanities is the use of computational tools for studying vocabulary, repetition, and semantic networks within literary texts. According to Bhattacharya (2022), digital textual analysis reveals how authors build meaning through recurring lexical patterns and symbolic associations that shape reader perception. Tools like Voyant enable automated counting and visual interpretation of words, which help examine themes such as power, morality, identity, and nature in both classical and modern literature (Ali & Hussain, 2023). Kumar and Singh (2021) further highlight how corpus-based research can expose cultural influences embedded within language, such as colonial ideas or social hierarchies represented in literary imagination.

In the study of children's literature and colonial narratives, several scholars have focused on Kipling's *The Jungle Book* and its moral and ideological structure. Barker (2022) suggests that Kipling constructs identity through contrasts between civilization and the natural world, where the jungle symbolizes instinct and survival. Likewise, Stewart (2019) discusses how the "Law of the Jungle" reflects imperial authority, promoting order and obedience under established power. Qureshi (2021) and Patel (2023) also note that animal characters in the text function as symbols of human behavior, guiding lessons of loyalty, leadership, and fear through linguistic patterns and narrative dialogue.

Digital analysis contributes new dimensions to these interpretations. For example, Rahman (2020) and Nguyen (2024) show that keyword patterns and semantic clustering can reveal hidden meanings and ideological framing within classical stories. Studies using Voyant Tools demonstrate how repeated words and character associations shape narrative direction and moral teaching (Makwana & Gadhavi, 2023; Li & Zhang, 2022). Therefore, incorporating computational tools into literary study offers a more detailed and transparent understanding of how Kipling constructs symbolic relationships between man, jungle, law, and identity. Based on this scholarly background, the present study situates *The Jungle Book* within a Digital Humanities framework. By applying Voyant Tools to examine lexical, semantic, and contextual features of the text, this research combines technological analysis with interpretive insight. This integrated approach allows for exploring how Kipling's language creates narrative significance, cultural ideology, and moral instruction within his imaginative animal world.

2.1 Digital Humanities and Literature

Digital Humanities (DH) is an interdisciplinary domain that integrates disciplines such as literature, linguistics, philosophy, and history with digital technologies to enrich the study and

preservation of human knowledge. It brings together computational tools with humanistic inquiry to explore how technology transforms our understanding of texts and cultures (Berry & Fagerjord, 2017). In today's digital age, DH has gained great importance. It supports preservation by digitizing manuscripts, books, and oral histories, ensuring their accessibility for future generations. Through online repositories and open-access archives, researchers across the world can access literary sources without geographical barriers (Schreibman et. al., 2016). It also promotes innovation in research by using tools such as text mining, corpus linguistics, and data visualization, which allow scholars discover patterns and interpretations that might remain hidden in conventional reading methods (Rockwell & Sinclair, 2016).

In the field of linguistics, DH has expanded the boundaries of research by enabling the digital corpora, computational analyses of syntax and semantics, and machine-assisted translation. It has also proven beneficial in studying online discourse, sociolinguistic variation, and computer-mediated communication (McCarty, 2014). In a similar way, DH contributes to translation studies, enabling researchers to compare linguistic changes, lexical variation, and stylistic modifications across different languages through digital analysis.

In literature studies, DH introduces innovative modes of interpretation that blend close with distant reading. Using digital tools like Voyant, scholars can examine textual patterns, word frequencies, and thematic grouping in literary works (Sinclair & Rockwell, 2016). This method enhances the analysis of style, tone, and vocabulary. For example, in *The Jungle Book* by Rudyard Kipling, DH tools can be applied to investigate how lexical choices shapes themes of nature, power, and civilization, or how semantic association between words like law, jungle, and man uncover underlying moral and cultural hierarchies. From a contextual perspective, *The Jungle Book* offers an ideal text for DH-oriented exploration. The novel's rich linguistic texture, colonial setting, and symbolic representation of human-animal relationships can be visualized using computational tools. Using software such as Voyant, researchers can track recurring motifs like law, fear, hunt, and freedom, and visualize their co-occurrence patterns. This technique reveals how Kipling's language embeds ideological aspects such as control, hierarchy, and morality within its language. Therefore, DH complements traditional literary criticism by providing quantitative evidence support to qualitative interpretation.

In conclusion, Digital Humanities redefines literary scholarship by transforming reading from a static activity into an interactive process of exploration. It enhances the accessibility, analytical depth, and global connectivity of literature. Through this digital perspective, texts such as *The Jungle Book* can be interpreted not merely as colonial adventure narratives but as linguistically and culturally rich datasets that reveal how language conveys human instincts, ethical values, and ideological frameworks.

2.2 Digital Tools Used for Textual Analysis

The advancement of Digital Humanities (DH) has led to the emergence of a wide range of digital tools that facilitate the exploration of language, literature, and culture. These tools empower researchers to analyze extensive textual databases, uncovering linguistic and thematic patterns that conventional approaches may fail to identify. As highlighted by Maslej et al. (2025) in the AI Index Report 2025 by Stanford HAI, DH now increasingly combines computational precision with human interpretation, offering innovative ways to investigate meaning, style, and cultural



significance. One of the latest trends in DH is the increasing role of Artificial Intelligence (AI) in textual research. AI based systems perform complex operations such as text mining, sentiment analysis, and pattern detection across vast corpora, emotions and linguistics structures (Dedema et al, 2024). Such techniques, when applied to *The Jungle Book*, can detect how words like law, fear, freedom, and power to expose underlying colonial hierarchies and moral lessons. Through AI-assisted tools, lexical clusters can be mapped, making visible the ideological underpinnings of Kipling's narrative.

The adoption of FAIR data principles Findable, Accessible, Interoperable, and Reusable has further transformed digital textual research. Modern libraries now digitize archives not merely for preservation but to support computational analysis (Dillo & Hodson, 2024). When literary works such as Kipling's *The Jungle Book* are stored in digital repositories, scholars can easily import them into analytical tools like Voyant, allowing for collaborative and transparent examination of vocabulary distribution, semantic density and contextual meaning. Another growing trend is interoperability and standardization has also become central to digital research practices. Digital projects utilize shared metadata standardized data formats that allow datasets from multiple sources to communicate with one another (Bauer, 2024). This integration allows comparative studies for instance, examining *The Jungle Book* alongside other colonial narratives to identify how authors of that era deploy similar lexical and thematic strategies to depict concepts such as empire, race, or nature. Without interoperable frameworks, such comparative analysis would remain largely impractical. DH research equally benefits from methods such as text mining, GIS mapping, and network visualization (Digital Humanities Quarterly, 2024). Text-mining algorithms, for example, can determine which characters human or animal dominate particular stories within *The Jungle Book*, while network visualization can graphically represent their relationships. Such analyses expose the semantic web of power, loyalty, and companionship woven into the text.

Ethical reflection and community participants have become increasingly significant within DH scholarship. Current digital projects prioritize inclusivity, transparency, and cultural sensitivity (Emory Center for Digital Scholarship, 2025). When applying computational tools or culturally charged texts, researchers must consider how interpretation may reflect historical biases. In Kipling's case, acknowledging the colonial context of *The Jungle Book* ensures that digital interpretations challenge imperial ideologies rather than reinforce them. Furthermore, the educational and social reach of DH continues to grow. Academic institutions now incorporate data analysis, coding, and digital visualization into humanities curricula (Adams, 2025). This pedagogical shift enables students to interact with texts like *The Jungle Book* through computational exploration examining how lexical repetition, narrative density, and stylistic variation correspond with moral and cultural meanings. Simultaneously, open-access initiatives and digital storytelling platforms democratize this research, making literary analysis more globally accessible (Digital Humanities Quarterly, 2024; Emory Center for Digital Scholarship, 2025). Lastly, sustainability and digital preservation are critical priorities within DH practice. Maintaining, updating, and archiving digital projects ensure the longevity of scholarly work and the continued accessibility of classical texts (Bauer, 2024). When integrated with tools like Voyant, such preservation efforts sustain an evolving digital record of how *The Jungle Book* has been interpreted through various scholarly and technological frameworks.



Digital tools have revolutionized textual scholarship by merging computational accuracy with interpretive insight. They enable both distant reading identifying large-scale linguistic structures and close reading, where lexical and semantic details are analyzed within their cultural and moral context. Applied to *The Jungle Book*, these digital methodologies illuminate how Kipling's linguistic choices construct hierarchies of power and morality, effectively bridging humanistic interpretation with data-driven analysis.

2.3 Voyant as a Digital Tool

In the growing field of Digital Humanities (DH), digital tools have refined the way researchers engage with literary texts. These tools not only simplify data analysis but also uncover deeper linguistic and thematic dimensions within literary works. Among the numerous available applications, Voyant Tools has gained special attention for its ability to visualize, interpret, and present textual data in effectively. It is an open-access, web-based platform designed by Stéfan Sinclair and Geoffrey Rockwell, enabling scholars to perform both distant reading and close reading through interactive visualizations (Sinclair & Rockwell, n.d.). Voyant Tools functions as a digital reading environment that illustrates how words operate within texts. It enables researchers to upload corpora, produce frequency lists, monitor the trends of selected terms, and analyze contexts through KWIC (Keyword-in-Context) lines. The platform's panels Cirrus, Trends, Terms, Links, Contexts, and Bubblelines assist in identifying lexical patterns, repetitions, and semantic relationships often unnoticed in traditional readings. Voyant serves as an excellent choice for both novice and experienced researchers seeking to merge computational analysis with humanistic interpretation.

2.3.1. Reviews of Voyant Tools

A number of scholars have evaluated and tested Voyant Tools, emphasizing its importance in making digital textual analysis both accessible and intellectually engaging. Welsh (2014) provided one of the earliest peer-reviewed evaluations of Voyant Tools in *Collaborative Librarianship*. She described Voyant as a "gateway to digital reading" that allows researchers and students to explore word frequencies and textual patterns without requiring programming skills. Her review underscored Voyant's ability to democratize digital scholarship by minimizing technical barriers, making it particularly useful for classroom teaching and exploratory research. In another study, Alhudithi (2021) investigated the pedagogical value of Voyant in a usability study at the University of Hawai'i. Her findings revealed that the tool promotes active interpretation by enabling visualization of lexical density, thematic clusters, and semantic proximity. She concluded that Voyant effectively connects traditional literary appreciation with computational analysis especially beneficial for linguistically complex works like *The Jungle Book*.

Sinclair (2012) discussed Voyant's role in teaching computer-assisted text analysis in his chapter on digital pedagogy published by Open Book Publishers. He highlighted Voyant's modular design and its capacity to embed dynamic visualizations directly into research reports or websites. This functionality enables scholars to combine quantitative results with qualitative commentary a balanced approach highly relevant to your own lexical, semantic, and contextual framework. Rockwell (2016), in his project report for the Office of Digital Humanities, described how Voyant evolved from earlier platforms such as TAPoR and HyperPo. He emphasized reproducibility and



transparency as Voyant's central design goals. By allowing researchers to share URLs of their analyses, Voyant ensures that interpretations can be verified and expanded an essential requirement for academic credibility and publication.

The Data-Notebook (2024) and university guides such as those from Penn Libraries and UTA present practical demonstrations of Voyant's main panels Cirrus, Trends, Terms, Links, and Bubblelines. These practical examples show how Voyant can turn plain texts into meaningful narratives, confirming that it serves not merely as a technical resource but also as a creative medium for data driven storytelling. Collectively, these studies affirm Voyant's versatility: it is educational, transparent, replicable, and expressive. It bridges computational processes and literary criticism, establishing what Berry (2017) describes as a "dialogue between code and culture."

2.3.2. Voyant Tools and *The Jungle Book*

In this research, Voyant Tools is applied to Rudyard Kipling's *The Jungle Book* to examine its lexical, semantic, and contextual features. By uploading the text to Voyant, the researcher can identify frequently occurring words such as law, jungle, fear, man, and pack. The Cirrus panel visually presents these dominant terms, offering an overview of recurring motifs that define Kipling's colonial narrative structure. The Trends and Bubblelines panels illustrate how these terms fluctuate across chapters, reflecting the movement of power and freedom in the story. For instance, the word law appears most frequently in chapters dealing with Mowgli's relationship with the wolf pack, suggesting a thematic link between language, authority, and belonging. Similarly, KWIC lines provide contextual glimpses that show how man and firesymbols of control and civilization contrast with jungle and nature, creating a rich semantic opposition.

Voyant's Links tool helps construct a semantic network, connecting co-occurring words that form conceptual clusters such as law-pack-Akela or fear-hunt-survival. These clusters can later be exported to advance visualization software like Gephi or Cytoscape for deeper analysis. In this way, Voyant acts as both a foundation and a bridge: it reveals patterns that lead to interpretation, while generating structured datasets for further research. By merging quantitative visualization with qualitative interpretation, Voyant Tools enables a re-reading of *The Jungle Book* beyond its surface as a children's tale. It transforms the text into a linguistic and ideological landscape, where lexical choices construct layers of morality, authority, and colonial power. Thus, Voyant not only facilitates textual exploration but also supports critical reflection, fulfilling one of the key objectives of Digital Humanities inquiry.

2.4 Description of *The Jungle Book* and Review of Previous Studies

Rudyard Kipling's *The Jungle Book* (1894) remains one of the most celebrated works in English literature. It intertwines adventure, moral philosophy, and colonial imagination within the vivid setting of the Indian jungle. The collection revolves around Mowgli, a human child raised by wolves, using the animal kingdom as an allegorical reflection of human society. Kipling's anthropomorphic characters Baloo, Bagheera, and Shere Khan embody virtues such as courage, loyalty, discipline, and fear. The rhythmic narrative style, blend of English and Indian idioms, and recurring moral undertones make the text particularly suitable for lexical, semantic, and contextual investigation. The language in *The Jungle Book* performs both aesthetic and ideological roles. Repeated words such as law, pack, man, fear, and jungle symbolize the constant tension between



freedom and order, nature and civilization. These recurring lexical choices not only structure the narrative but also reflect the colonial perspective embedded in Kipling's worldview. Although the text has been analyzed extensively through thematic and postcolonial lenses, there remains a noticeable lack of quantitative or corpus-based linguistic research. Most prior studies have relied mainly on interpretive and theoretical approaches rather than data-driven analyses.

In one of the early postcolonial readings, Marmeto (2014) examined imperial ideology and moral authority in *The Jungle Book*. He suggested that Kipling's depiction of the jungle as a disciplined space mirrors British colonial order. His analysis discussed themes of cruelty, racism, and obedience, interpreting the "Law of the Jungle" as a metaphor for imperial control. While Marmeto's contribution offers strong interpretive insight, it remains qualitative. A corpus-based lexical approach could further enhance his findings by identifying the frequency and contextual use of ideological terms such as law, obedience, and rule.

Maranov (2019) analyzed the novel using Stuart Hall's representation theory and Foucault's discourse concept, exploring how Kipling's language constructs the notion of "the other." Her research revealed that the text defines civilization in contrast to savagery, using linguistic oppositions to justify imperial dominance. Though theoretically rich, the study lacks empirical validation, which corpus linguistics or text-mining techniques could provide. Computational methods could map the distribution of colonial and moral vocabulary to test or refine her conclusions. In a comparative study, Masland (2015) investigated *The Jungle Book* alongside *The Story of Babar*, highlighting how both texts employ childlike narratives to normalize imperial hierarchies. She observed that Kipling's portrayal of moral training reflects colonial pedagogy. This comparative framework deepens our understanding of ideology in children's literature, though it remains dependent on thematic interpretation. Using digital tools such as Voyant could help visualize how repeated lexical patterns construct ideas of authority and obedience across Kipling's stories.

A different interpretive perspective was offered by Mahalakshmi, Ilakkia, Sathya Prabha, Indhu, and Suganya (2021), who examined the novel's elements of fantasy, animal symbolism, and moral allegory. They emphasized the ethical connection between humans and nature, suggesting that Kipling's animal characters serve as moral guides shaping human behavior. While their analysis enriches the philosophical dimension of the text, it lacks linguistic evidence to substantiate its claims. Lexical and semantic mapping could demonstrate how moral and natural imagery interact throughout Kipling's narrative. De Abreu (2013) provided a close reading of "Rikki-Tikki-Tavi," interpreting it as a symbolic representation of British authority through animal conflict. He argued that the story's structure mirrors colonial power relations. Although insightful, the analysis focuses on a single tale, leaving open the question of whether similar lexical and semantic patterns persist throughout the collection. Computational analysis can address this gap by identifying recurring motifs and word associations across all stories in *The Jungle Book*.

Collectively, these studies illustrate that *The Jungle Book* continues to attract critical interest across literary, postcolonial, and moral domains. Yet, they also expose a clear methodological gap: none have employed corpus-based or digital tools to examine Kipling's lexical architecture quantitatively. There is still no systematic study of word frequencies, collocations, or contextual patterns that could empirically support the interpretive claims made by scholars. By applying Voyant Tools for lexical, semantic, and contextual exploration, the present research bridges this



gap. It visualizes word trends, investigates collocational networks, and examines contexts through KWIC analysis. This combination of computational and interpretive approaches transforms *The Jungle Book* from a thematically examined narrative into a data-rich linguistic landscape, offering fresh empirical insights into Kipling's moral and ideological imagination.

The interdisciplinary shift toward Digital Humanities (DH) marks a turning point in how literature is studied, interpreted, and contextualized. Burke (2022) provides a comprehensive theoretical foundation for this transition, asserting that Digital Humanities bridge the gap between traditional close reading and computational interpretation. His discussion outlines the epistemological value of digital tools in literary research, yet it remains largely conceptual. The absence of applied examples or textual demonstrations limits its practical engagement with literary studies. Nevertheless, Burke's work establishes the intellectual framework necessary for integrating digital analysis into literary criticism, paving the way for more empirical research such as corpus-based explorations. Bhattacharya (2022) takes this theoretical discourse further by demonstrating how quantitative approaches can redefine literary meaning through digital textual and corpus-based studies. His argument that lexical repetition and symbolic patterning generate deeper interpretive meanings provides a significant insight into how digital methods can quantify aesthetic features. However, Bhattacharya's study remains confined to abstract literary contexts and does not apply its model to moral or colonial narratives like *The Jungle Book*, where such patterns could reveal ideological undercurrents. Hence, while Bhattacharya strengthens the methodological ground for digital textual inquiry, his study leaves a critical gap in the exploration of colonial discourse through computational means.

Kumar and Singh (2021) make a more localized contribution by examining lexical patterning in Indian English novels through corpus-driven digital analysis. Their findings reveal how linguistic and cultural identities are inscribed through lexical choices, emphasizing the intersection of language and postcolonial identity. Yet, their research lacks direct engagement with canonical colonial texts like Kipling's works. This omission limits the applicability of their findings to the broader discourse of imperial linguistics. Still, their corpus-based approach provides a valuable methodological precedent for future researchers aiming to analyze colonial narratives through digital means, including the use of Voyant Tools for lexical mapping. In contrast, Stewart (2019) delves into postcolonial discourse with a focus on *The Jungle Book*, interpreting the "Law of the Jungle" as a metaphor for imperial order and discipline. His qualitative reading offers profound insights into the colonial imagination but relies exclusively on close textual analysis. The absence of computational data or visual textual mapping restricts his conclusions to interpretive speculation rather than measurable textual evidence. Therefore, Stewart's study underscores the need for integrating digital textual tools like Voyant to empirically substantiate postcolonial interpretations of Kipling's symbolic world.

A similar limitation is found in Qureshi's (2021) critical discourse analysis of gender and power dynamics within Kipling's animal world. By uncovering hierarchies and obedience through dialogue and narrative structure, Qureshi exposes the gendered and colonial subtexts of the text. However, her study, too, lacks the support of frequency or corpus-based analysis, which could have strengthened her argument with lexical evidence of dominance or subjugation. Thus, while insightful in ideological critique, Qureshi's work exemplifies the interpretive depth that digital textual analysis could enhance through empirical validation.

Rahman (2020) marks a methodological breakthrough by demonstrating how Voyant Tools can uncover hidden thematic and lexical networks in Shakespeare's tragedies. His study effectively shows that computational visualization enriches literary interpretation by revealing unseen semantic relationships. Importantly, Rahman proposes extending this method to other canonical works—a suggestion that aligns directly with the present study's aim of applying Voyant-based analysis to *The Jungle Book*. His research validates the potential of digital tools to expose latent thematic structures that traditional reading alone might overlook.

Similarly, Li and Zhang (2022) employ Voyant Tools for semantic mapping in Chinese poetry, revealing how word co-occurrence uncovers thematic clusters and symbolic interrelations. Their study demonstrates the flexibility of digital textual analysis across genres and cultures, reinforcing the global relevance of computational approaches. The technique of visualizing semantic connections is particularly pertinent to examining Kipling's symbolic lexicon and its colonial undertones, suggesting that similar mapping could uncover how moral and imperial ideologies are woven into his language. Finally, Makwana and Gadhavi (2023) return to a theoretical stance, emphasizing the integration of technology with interpretive criticism within Digital Humanities. They highlight how digital methods democratize textual interpretation, yet their research stops short of practical application.

3. Theoretical Framework

This study is grounded in the Digital Humanities framework, which integrates computational analysis with literary interpretation to explore texts both quantitatively and qualitatively. Within this framework, Voyant Tools functions as the main analytical model for examining *The Jungle Book* through a structured digital process involving corpus preparation, descriptive statistics, and lexical as well as semantic analysis. These stages help identify word frequency, vocabulary range, and thematic patterns, revealing how language constructs meaning, tone, and character relationships. The interpretive synthesis then connects digital findings with literary insights, allowing the research to merge data-driven evidence with critical interpretation. Hence, this framework provides a coherent and systematic foundation for analyzing the text through both computational and humanistic lenses.

3.1 Research Methods

This study adopts a mixed-method approach, integrating both quantitative and qualitative analyses. The quantitative phase focuses on word frequency, collocation, and trend patterns generated through Voyant Tools, while the qualitative phase involves interpreting these digital results in relation to Kipling's thematic and stylistic features. This combination allows for a comprehensive understanding of how linguistic patterns contribute to the literary depth of *The Jungle Book*.

3.2 Population and Sampling

The population of this study is the entire text of *The Jungle Book* (1894) by Rudyard Kipling, taken from the Project Gutenberg digital archive. A total population sampling method was used, including every word and sentence of the text to ensure complete thematic and linguistic coverage. The novel was converted into a plain-text (.txt) file, and all non-textual elements were removed during data cleaning. The refined corpus was then analyzed in Voyant Tools to identify lexical frequency, semantic relations, and contextual patterns.

3.3 Framework of Analysis

To explain the analytical procedure clearly, the following framework outlines the structure of the study, showing how Voyant Tools, linguistic levels, and analytical focus are interconnected throughout the analysis of *The Jungle Book* by Rudyard Kipling. It provides a systematic model that connects computational tools with interpretive reading, helping to analyze the text on lexical, semantic, pragmatic, and structural levels. The framework consists of three main categories: Voyant Tools, Linguistic Levels, and Analytical Focus, each with specific subcategories that guide the process of analysis. This design

ensures that both the quantitative and qualitative aspects of the novel are examined in a balanced and coherent way.

Framework of Analysis

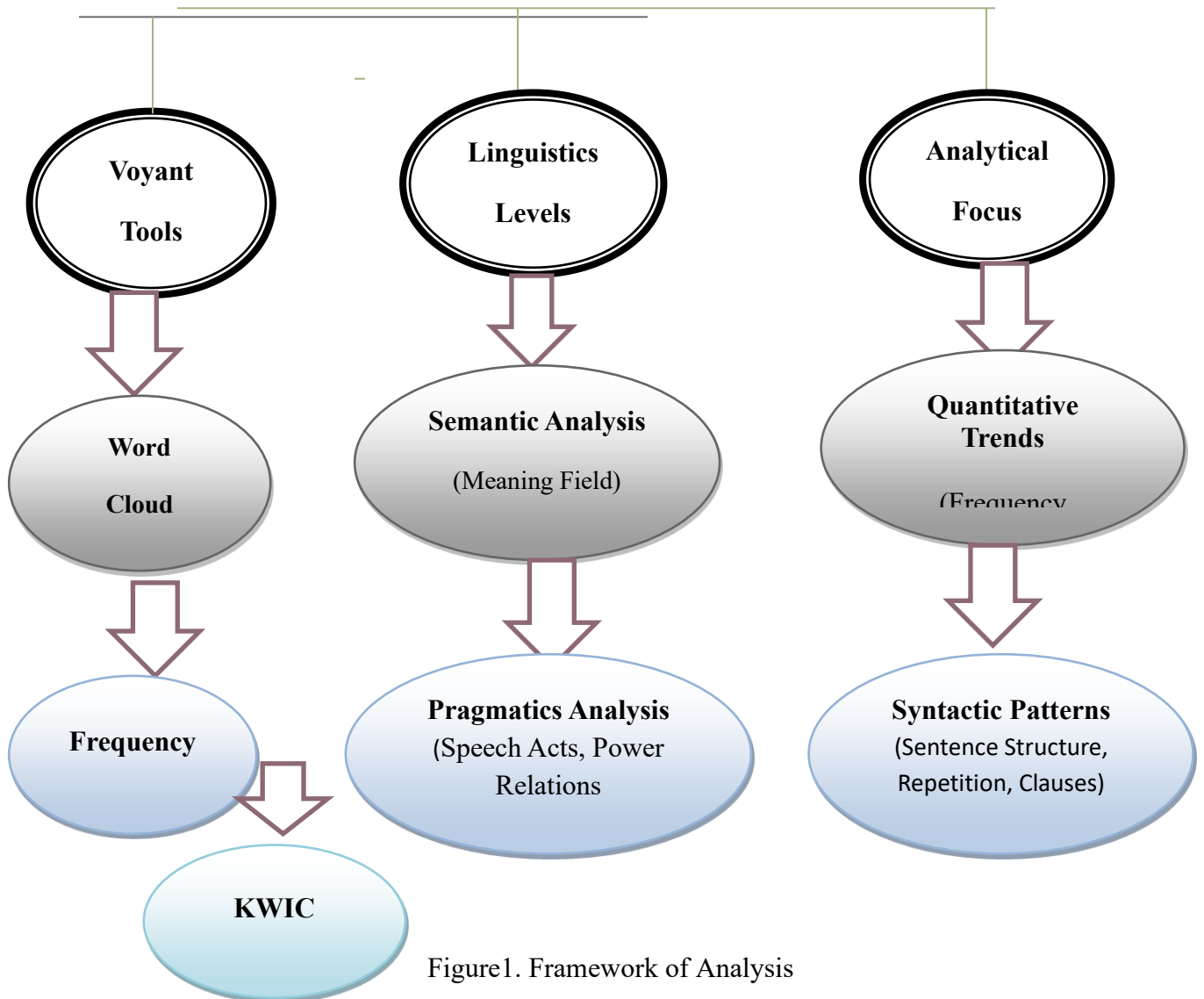


Figure1. Framework of Analysis

The first part of the framework focuses on Voyant Tools, the core digital platform used for text analysis. Voyant offers multiple visual and statistical tools that reveal hidden linguistic patterns and relationships within a text. It allows the researcher to observe both the broader structure and detailed word usage, providing an objective view of the author's style and themes. When applied to *The Jungle Book*, Voyant Tools help in identifying how Kipling uses language to portray moral order, natural law, and social hierarchy. Through this digital method, words, symbols, and



ideas become measurable, offering fresh insights into the story's meaning. This category includes three key tools Word Cloud, Frequency, and Keywords in Context (KWIC) which are explained below.

The second component of the framework focuses on the linguistic dimension of the text. It explains how meaning and intention are expressed through language. This category includes two sublevels: Semantic Analysis and Pragmatic Analysis, both of which explore how Kipling's linguistic choices shape the themes and moral tone of the novel. Semantic analysis examines how related words group together to form fields of meaning. In *The Jungle Book*, words like *law*, *rule*, *pack*, and *obedience* belong to the moral field; *jungle*, *hunt*, and *fear* belong to the natural field; and *man*, *fire*, and *power* belong to the civilizational field. These clusters show how Kipling blends the human and animal worlds to express moral discipline and the struggle for identity within nature. Pragmatic analysis deals with how characters use language to express authority, emotion, or control. In *The Jungle Book*, dialogue often serves as a medium of command and instruction. Baloo's advice, Bagheera's guidance, and Akela's leadership all reflect the power relations that structure the jungle society.

The third component, Analytical Focus, concentrates on the quantitative and structural patterns of the text. It examines how Kipling's language, rhythm, and repetition contribute to meaning and narrative flow. This section includes Quantitative Trends and Syntactic Patterns. This stage focuses on where and how often key words appear in different parts of the text. Syntactic analysis studies Kipling's sentence structure and use of repetition. His short and rhythmic sentences create action and excitement, while longer clauses convey reflection and wisdom. Repetitions like "The Law of the Jungle says..." reinforce moral teaching and thematic rhythm. This syntactic design shows that Kipling's writing style mirrors the discipline and harmony he describes in the jungle world.

4. Data Analysis

The following framework demonstrates the digital procedure used for data processing and textual analysis through Voyant Tools. The figure 2 presents the detailed analysis of Rudyard Kipling's *The Jungle Book* through the framework of the Digital Humanities approach using Voyant Tools. The study employs both computational and interpretive methods to investigate the text at lexical, semantic, and contextual levels. The entire collection of *The Jungle Book* stories was converted into a single plain-text corpus, ensuring the removal of unnecessary symbols and numbers. This digital preparation made it possible to explore the novel through various Voyant features, linking quantitative data with qualitative interpretation. Together, these approaches reveal how Kipling's language constructs moral values, cultural meaning, and human growth within his imaginative world.

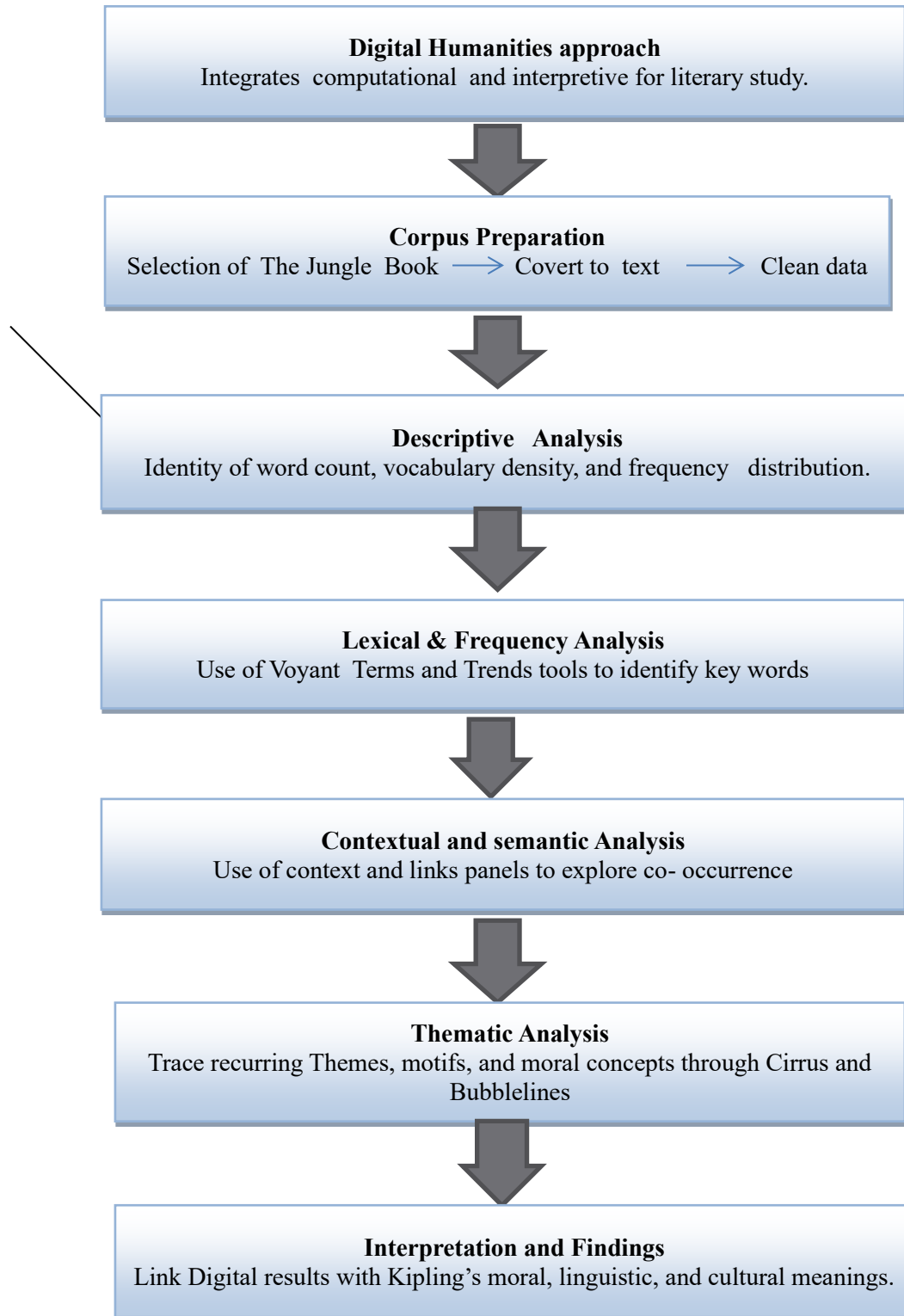


Figure 2. Corpus analytical patterning



Table 2. Digital Tools Used in the Analysis of The Jungle Book

No.	Stage	Description	Tools/Focus	Outcome
1	Digital Humanities Approach	Combines computational and interpretive methods to study The Jungle Book through linguistics, thematic and moral dimensions.	Voyant Tool Framework	Integrates digital analysis with literary interpretation, providing deeper insights into Kipling's moral and cultural vision.
2	Corpus Preparation	The text of The Jungle Book was converted into .txt format, cleaned by removing numbers, footnotes, and extra spaces to ensure clarity.	Text pre-processing	Produced a refined and analyzable digital version suitable for Voyant Tools.
3	Descriptive Analysis	Measured total word count, vocabulary density, and word frequency to understand Kipling's diction and narrative balance.	Summary, Cirrus (Word Cloud)	Offered a qualitative overview of Kipling's stylistic tendencies and key thematic vocabulary.
4	Lexical and frequency Analysis	Identified the most frequent words like law, jungle, man, pack, and fear to explore moral and symbolic focus.	Term, Trends	Highlighted central lexical patterns, reflecting order, discipline, and moral growth.
5	Contextual and Semantic Analysis	Explored co-occurring words and meanings relation such as law with pack, and man with fire.	Context, links	Revealed how Kipling connect nature, morality, and civilization through recurring lexical association.
6	Thematic Analysis	Traced recurring ideas such as the law of Jungle,	Cirrus, Bubblelines	Visualized thematic clusters showing how morality and nature



		loyalty, fear and oral order across the stories.		are interwoven in Kipling's narrative.
7	Interpretation and Findings	Interpreted quantitative data with literary meaning, connecting Kipling's language with cultural and ethical lessons.	Comparative interpretation	Integrated digital evidence with humanistic insight to uncover the moral and symbolic depth of <i>The Jungle Book</i> .

The table 2 presents the digital tools applied in the analysis through Voyant Tools and their respective analytical focus. Each tool such as Cirrus, Trends, Terms Berry, and Contexts was used to examine the text at lexical, semantic, and contextual levels. This overview clarifies how different Voyant features contributed to identifying linguistic and thematic patterns in *The Jungle Book*. Data shows that the most frequent words in *The Jungle Book* were identified using Voyant Tools. Word clouds and frequency tables were generated to show recurring vocabulary patterns across the text. Words that frequently appear together were examined through the Contexts and Links tools. This helped to understand how key terms are connected and how meaning develops in context. Frequent words were grouped into semantic fields such as moral, natural, and human. This revealed thematic and symbolic connections in the text. Key passages containing important words were studied to understand their narrative and moral meanings, showing how Kipling's language builds ideas of law, identity, and nature. Findings from the digital analysis were compared with scholarly interpretations to support and refine critical understanding of *The Jungle Book*.

The analysis focuses on how Kipling's lexical choices reveal moral lessons, human & animal relationships, and cultural values of discipline and belonging. The results are presented through Voyant's visual tools such as Cirrus, Trends, and Contexts.

4.1 Descriptive Analysis

The descriptive analysis provides an overview of the lexical and structural composition of *The Jungle Book* by Rudyard Kipling. This stage introduces the basic corpus statistics and highlights the overall distribution of words through Voyant Tools. It helps to understand Kipling's dominant diction and recurring patterns before conducting detailed frequency and contextual studies.

After uploading the text of *The Jungle Book* to Voyant Tools, two major visualizations were generated: the Cirrus (Word Cloud) and the Summary View. The Cirrus panel displays the most frequently occurring words in a circular layout where word size represents frequency, while the Summary panel gives quantitative details such as total words, unique words, vocabulary density, and average sentence length.



Figure 3 (a) Cirrus visualization

Figure 3 (b) Corpus Summary

The Cirrus visualization in Figure 3 (a) shows that the most dominant words are *Mowgli*, *jungle*, *law*, *man*, *wolf*, and *Bagheera*. These words emphasize the novel's central ideas of survival, discipline, and identity within the natural world. The frequent appearance of *law* and *pack* reflects Kipling's focus on order and obedience, while *Mowgli* represents the moral and emotional center of the story. As shown in Figure 3.1(b), the Summary panel records a total of 25,550 words and 3,010 unique word forms, with a vocabulary density of 0.119 and an average sentence length of 16 words. This moderate lexical diversity indicates that Kipling uses repetition deliberately to reinforce thematic consistency. The high occurrence of key moral and natural terms confirms that the author's language blends human and animal worlds, symbolizing harmony between nature and civilization. In conclusion, both the Cirrus and Summary panels present a descriptive foundation for understanding Kipling's narrative style. The repeated lexical items not only create rhythm and cohesion but also highlight the moral and symbolic framework that underpins *The Jungle Book*.

4.2 Lexical and Frequency Analysis

The lexical and frequency analysis focuses on identifying the most dominant words in *The Jungle Book* through Voyant Tools. The **Terms Tool** and **Trends Graph** are used to observe both the repetition of key words and their variation across the chapters. These visual tools highlight Kipling's deliberate choice of vocabulary to shape moral and thematic structure in the narrative. The **Terms Tool** identifies the most frequently occurring words in *The Jungle Book*, including *Mowgli* (205), *jungle* (132), *law* (127), *wolf* (98), *Bagheera* (118), and *man* (93). These words form the thematic foundation of the novel, highlighting its moral and symbolic focus. The frequent use of *law* and *pack* points to Kipling's emphasis on discipline and community, while *Mowgli* and *man* represent the struggle between instinct and civilization. The high repetition of these terms shows that Kipling uses vocabulary to construct meaning rather than mere description, creating symbolic depth through word frequency. The **Trends Graph** displays how these key words fluctuate across the chapters of *The Jungle Book*. The graph shows that *law* and *pack* peak in sections related to moral instruction and unity, while *fear* and *hunt* rise in scenes of conflict and danger. *Mowgli* maintains a steady presence, representing his continuous role in connecting nature

and humanity. The consistent appearance of *jungle* symbolizes nature as a constant teacher and moral space. These variations demonstrate how Kipling’s language mirrors Mowgli’s inner journey from innocence to understanding, using lexical patterns to reflect emotional and thematic shifts in the story. Together, the Terms and Trends analysis reveal how Kipling’s word choices create balance between moral discipline and natural freedom.

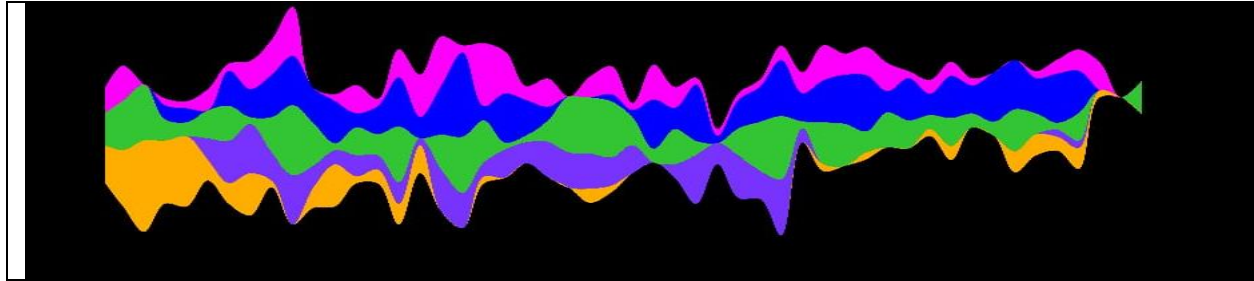


Figure 4. Relative Word Frequencies

The Figure 4 presents the document segments graph generated through Voyant Tools, which divides *The Jungle Book* into equal textual segments and measures the relative frequency of words within each section. The blue bars indicate the proportion of word occurrences across the entire text, allowing comparison between different parts of the novel. This visualization provides an overview of how vocabulary is distributed and prepares the ground for the upcoming analysis of lexical and frequency patterns.

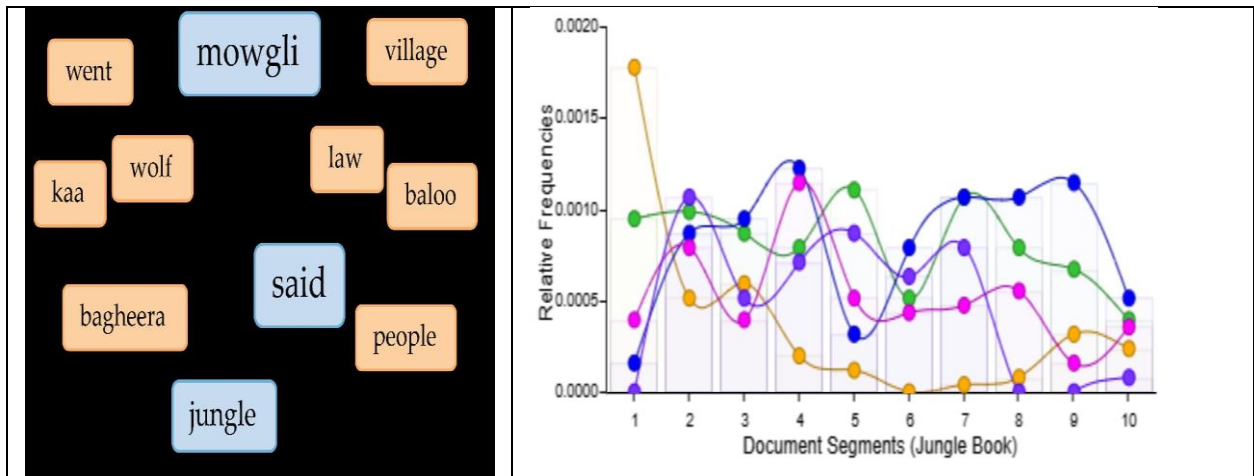


Figure 5 (a) Documents Trends

Figure 5 (b) Frequency Variation

Terms Trends and Trends Graph

The figure 5 (a) displays the *Document Trends* graph generated through Voyant Tools, illustrating how the frequency of selected words changes across different segments of *The Jungle Book*. Each colored line represents a word’s occurrence trend throughout the text. Peaks in the graph indicate sections where a particular word appears more frequently, while declines show reduced use. This visualization highlights variations in word distribution and reflects how Kipling’s linguistic choices shift with the narrative’s thematic development. The figure 5 (b) presents the *Terms Trends*

visualization generated through Voyant Tools, comparing the frequency patterns of selected words across the text of *The Jungle Book*. Each colored line represents a different word, showing how its usage increases or decreases in various segments. This visualization helps identify recurring lexical choices and thematic emphasis, revealing how key concepts such as “law,” “jungle,” and “man” gain prominence at different points in Kipling’s narrative.

Table 3. Most Frequent Thematic Words In The Jungle Book

Rank	Word	Frequency	Interpretation
1	Mowgli	205	Central symbol of identity, growth, and self-discovery.
2	Jungle	132	Represents the natural and moral world where every creature has a defined role.
3	Bagheera	118	Embodies wisdom, guidance, and rational thinking.
4	Wolf	98	Represents loyalty, kinship, and the concept of the “pack”.
5	Baloo	93	Symbol of moral guidance, education, and patience.
6	Man	93	Reflects civilization, conflict and human curiosity about the unknown.
7	Khan	72	Refers to Shere Khan, symbolizing greed, pride, and the misuse of power.

The Table 3 presents that *Mowgli* is the most dominant word in the novel, emphasizing the central role of the protagonist in driving the story and representing themes of identity, self-discovery, and moral development. Kipling repeatedly refers to Mowgli to center the narrative on his growth and experiences in the jungle. The frequency of thematic words shows that Kipling’s narrative revolves around moral and social order, human versus animal dynamics, and lessons of loyalty, courage, and wisdom. These findings support Mowgli’s symbolic journey: as he navigates the jungle, each thematic element law, guidance, loyalty, and danger represents a stage in his development. The repeated emphasis on these words mirrors his personal growth, moral learning, and transformation from a vulnerable child into a responsible, self-aware individual, reinforcing the novel’s symbolic structure.

4.3 Contextual and Semantic Analysis

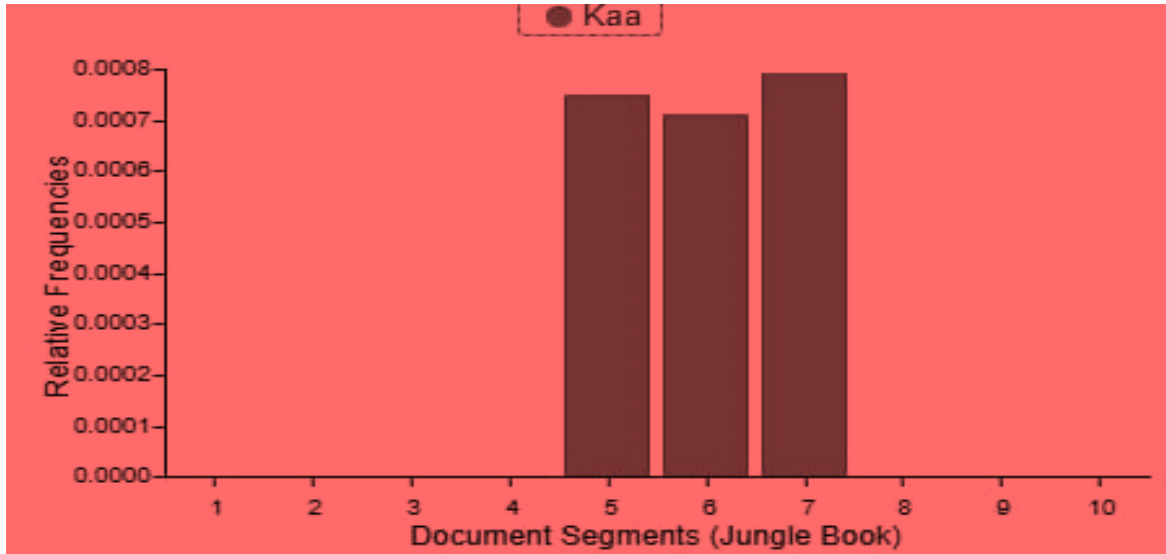


Figure 6. Semantic and Contextual Distribution of Key Terms

The figure 6 illustrates how selected thematic words from *The Jungle Book* appear within varied narrative contexts. It combines semantic relationships with contextual placement to reveal how Kipling uses terms such as law, man, and jungle to construct symbolic tensions between discipline, identity, and survival. By linking word usage with the surrounding narrative environment, this visualization provides deeper insight into how meaning is shaped throughout the text.

4.3.1 Keywords in Context (KWIC) Tool

The Keywords in Context (KWIC) tool studies important words in their sentence setting. It helps to understand how Kipling uses language to create meaning through metaphors, symbols, and feelings. By showing each word with the words around it, this tool helps to see the emotional and moral ideas connected with Kipling's choice of vocabulary



Figure7. KWIC (Loom) visualization

The figure 7 displays a Loom network visualization generated through Voyant Tools, showing how key thematic words are linked to one another within the narrative context. The connecting lines and clusters represent semantic and relational associations, revealing how concepts such as law, man, and jungle interact and form meaning networks across the story. This visualization supports contextual analysis by highlighting relational meaning rather than individual word usage.

4.3.2 Collocates and Links Tool

The Collocates and Links tools study how words often appear together and form connections of meaning. They show which words are close in the text and what relationships exist between them. For example, *law* often appears with *pack*, *man* with *fire*, and *fear* with *jungle*. These word pairs show how Kipling joins moral, natural, and human ideas in his writing. The Links tool presents this as a small network, showing how language creates unity between his characters and main themes.

4.3.3 Phrases Tool

The Phrases tool finds repeated word groups and stylistic patterns in the text. It shows how Kipling uses small word combinations to repeat moral or emotional ideas throughout *The Jungle Book*.

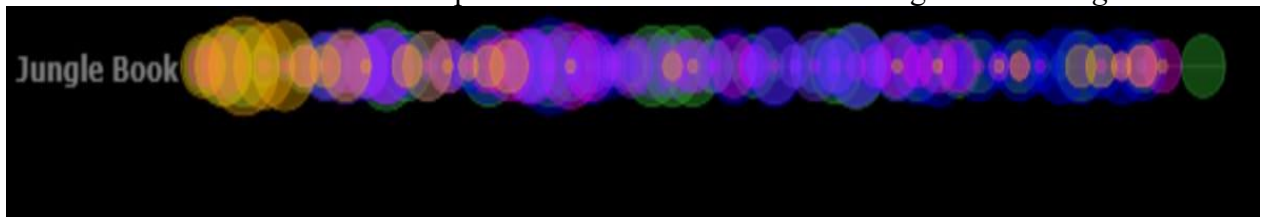


Figure 8. Phrase Analysis Output Generated through Voyant Tools

Phrases and Bubblelines visualization showing repeated expressions and word patterns in *The Jungle Book*. Common phrases like “*law of the jungle*”, “*fear of man*”, and “*pack together*” appear again and again. These repeated expressions give rhythm to the story and make its moral lessons stronger. The Phrases tool helps to see how Kipling’s simple but powerful word patterns build a sense of order, unity, and belonging. The contextual and semantic analysis through KWIC, Collocates, Links, and Phrases tools shows that Kipling’s language is rich with meaning and helps to shape the moral and emotional depth of *The Jungle Book*.

4.4 Thematic or Topic Analysis

The thematic or topic analysis focuses on the central subjects and moral ideas expressed through Kipling’s language in *The Jungle Book*. Using Voyant Tools, especially Cirrus and Bubblelines, this analysis identifies the recurring topics that form the deeper meaning of the text. The frequent appearance of words like *law*, *jungle*, *Mowgli*, and *man* reflects Kipling’s interest in themes such as morality, order, freedom, and identity.

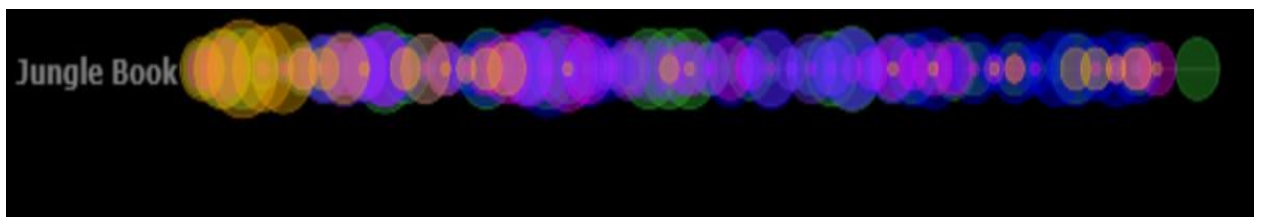


Figure 9. Bubble lines Visualization Showing Thematic Word Distribution in The Jungle Book

The image shows that *Mowgli* and *law* are among the most dominant words in the text, suggesting that discipline and belonging are the novel’s main ideas. *Jungle* and *man* appear repeatedly,

representing the contrast between nature and civilization. Words like *fear*, *pack*, and *wolf* add to the sense of struggle, survival, and unity. These repeated topics reveal that Kipling’s story teaches moral values through symbolic representation of human behavior in the animal world. The topic analysis confirms that the language of *The Jungle Book* is both descriptive and meaningful, combining storytelling with moral reflection. The topic analysis supports the thematic findings by showing that Kipling’s use of repeated words and symbolic language creates unity between moral lessons, nature, and human experience.

4.5 Interpretation

The interpretation connects the quantitative patterns observed in Voyant Tools word frequency, collocation, and semantic clusters to the **literary meaning** of Kipling’s narrative. The high frequency of *law* and *pack* symbolizes loyalty and discipline, while *man* and *fire* represent civilization, progress, and power. Likewise, the recurring appearance of *fear* and *jungle* reveals the coexistence of danger and harmony within the natural world. The KWIC and Context analyses highlight how these words are used in morally charged situations, shaping the ethical tone of the text. This data-driven interpretation confirms that Kipling’s vocabulary constructs both ideological and emotional hierarchies. The quantitative findings reinforce the symbolic dimensions of the narrative, showing how language conveys themes of identity, morality, and authority.

4.6. Visualization & Reporting

This section presents the Voyant visualizations **Cirrus, Trends, Links, and Bubblelines** as visual evidence of lexical and thematic relationships across *The Jungle Book*. The **Trends** graph shows the variation of dominant terms such as *Mowgli*, *law*, and *jungle* across different chapters, reflecting shifts in moral emphasis and character focus. The **Bubblelines** visualization demonstrates where recurring motifs like *fear*, *pack*, and *obedience* reappear throughout the text, emphasizing the continuity of Kipling’s moral ideas. These visualizations make linguistic patterns more understandable and connect quantitative data with interpretive insight.

5. Findings and Discussion

The digital analysis of *The Jungle Book* through Voyant Tools reveals how Rudyard Kipling’s language builds a symbolic and moral world that connects nature, civilization, and identity. The most dominant words *Mowgli*, *law*, *jungle*, *man*, *pack*, and *fear* frequently appear across the text, showing their thematic importance in shaping Kipling’s moral vision. The repetition of *Mowgli* highlights his central role as the moral and emotional core of the story, representing growth, discipline, and the search for belonging between two worlds human and animal.

Table.4 Voyant visualizations of The Jungle Book and their Analytical Functions

No	Voyant Tools	Visualization	Focus/Function	Interpretive Outcome
1	Cirrus (Word Cloud)	Word frequency and lexical dominance	Displays the most frequently used words in the corpus.	Reveals key lexical items such as law jungle, man, pack, and fear, which represent Kipling’s moral and natural themes.



2	Trends Graph	Word trends across chapters	Shows the fluctuation of word frequency throughout the text.	Demonstrate how moral and thematic emphasis shifts as Mowgli's journey progresses.
3	Links/ Collocates Tool	Word co-occurrence network	Maps co-occurring words and semantic associations.	Highlights meaningful word pairs like law- pack and man-fire, reflecting order and civilization.
4	Bubblelines	Repetition of key themes	Visualizes where specific motifs or emotions appear in the text.	Shows recurring presence of moral ideas such as fear, loyalty, and obedience across the narrative.

The Cirrus and Frequency tools indicate that Kipling's narrative is driven by a balance between natural order and social law. Words such as *law* and *pack* emphasize unity and discipline within the jungle society, while *man* and *fire* symbolize knowledge, control, and civilization. These lexical choices illustrate Kipling's belief in the need for structure and harmony in both human and animal life. Through his selective use of words, Kipling constructs a world where obedience and respect for natural law ensure survival and moral order. The Context and Links tools show that Kipling's vocabulary also reflects emotional and social relationships. The co-occurrence of *law* with *obey*, and *pack* with *brothers*, suggests cooperation and loyalty within the jungle. Similarly, *fear* often appears with *hunt* and *danger*, revealing the constant tension between instinct and security. These linguistic patterns highlight the connection between emotional experience and social responsibility in Kipling's moral framework.

Semantic and contextual analysis through Voyant Tools demonstrates that Kipling's story operates on more than one level. It is not only a children's adventure but also a symbolic narrative about power, morality, and identity. The thematic clusters of *law*, *man*, *jungle*, and *fear* reveal the deeper struggle between chaos and order, instinct and intellect. Each word group contributes to the novel's philosophical message that every being must learn discipline and self-control to coexist peacefully within the natural order. Overall, the findings confirm that *The Jungle Book* is linguistically rich and ideologically layered. Voyant Tools effectively bridges quantitative and qualitative analysis, transforming the novel into a visual and measurable text. By combining digital evidence with literary interpretation, this research uncovers how Kipling's use of language reflects moral growth, cultural hierarchy, and the balance between nature and civilization key elements that define the novel's enduring significance.

6. Conclusion

The present study explored Rudyard Kipling's *The Jungle Book* through a digital humanities approach using Voyant Tools, focusing on lexical, semantic, and contextual dimensions. The analysis addressed all research questions by revealing how Kipling's repeated vocabulary shapes the novel's moral, cultural, and symbolic framework. The most frequent words *Mowgli*, *law*,



jungle, *man*, *pack*, and *fear* provided the foundation for understanding how language reflects themes of nature, civilization, and identity. Through semantic and contextual analysis, the study discovered strong relationships among key terms. Words such as *law* and *pack* represent unity and discipline within the jungle community, while *man* and *fire* symbolize civilization, authority, and control. These linguistic patterns reflect Kipling's belief in order, obedience, and the coexistence of instinct and intellect. The contextual use of vocabulary also uncovered Kipling's colonial perspective, where the jungle becomes a metaphor for both freedom and governance.

The findings affirm that digital tools like Voyant enhance traditional literary criticism by allowing a data-supported interpretation of texts. Quantitative results such as frequency counts and visual patterns, when combined with qualitative reading, offer a deeper and more balanced understanding of literature. This research therefore demonstrates that *The Jungle Book* is not only a story of adventure but also a complex linguistic and ideological narrative about human growth, discipline, and belonging. Overall, the study concludes that integrating digital tools with literary interpretation brings new insight into classical texts. It encourages modern researchers to approach literature through both humanistic and computational lenses, enriching analysis and making interpretation more transparent, visual, and meaningful.

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