



## A Discourse Analysis of The Linguistic Patterns of AI Chatbots

Cecilia Mwancha<sup>1</sup>, Josephine Khaemba<sup>1</sup>, Raphael Gacheiya<sup>1</sup>

<sup>1</sup>Department of Literature, Languages & Linguistics Egerton University, P.O Box 536, Egerton, Nakuru 20115, Kenya

Corresponding author: [ceciliamwancha@gmail.com](mailto:ceciliamwancha@gmail.com)

### Abstract

Artificial Intelligence has become a transformative factor in shaping mediated interaction, altering how humans construct meaning and manage communication with chatbot users. This study aimed to analyse the linguistic patterns of AI chatbots, particularly ChatGPT, through a discourse analytical framework. Using a thematic synthesis framework of fifteen peer-reviewed studies published between 2020 and 2025, the research employed a qualitative meta-synthesis approach to analyse recurrent linguistic, and socio-pragmatic features of AI-generated discourse. The reviewed studies indicated that chatbots demonstrate advanced lexical diversity, syntactic complexity, and formal cohesion but lack spontaneity, emotional depth, and contextual adaptability. At the pragmatic level, AI discourse relied on politeness markers and neutral expressions that created an impression of professionalism with limited interpersonal warmth and authenticity. Although rhetorical strategies such as logical appeals appeared frequently, they were interpreted in relation to how communicative intent and interpersonal alignment were negotiated within the discourse rather than as purely literary devices. The findings suggest that while AI chatbots emulate human linguistic structures, their discourse remains constrained by superficial pragmatics and formulaic coherence. These insights contribute to understanding how computational language production reflects communicative competence rather than mere linguistic competence, emphasizing the importance of sociolinguistic awareness in model design. Therefore, developers should prioritize pragmatic adaptability, context sensitivity, and grammatical accuracy to enhance the naturalness and authenticity of human-AI communication.

---

#### Article Info

Received: 06 November 2025

Revised: 11 December 2025

Accepted: 20 December 2025

Available online: 11 January 2026

#### Keywords

Discourse Analysis

linguistic Patterns

AI Chatbots

Pragmatics

Interactional Cues

Communication

---

## 1. Introduction

Artificial Intelligence (AI) has become one of the most transformative technologies of the twenty-first century, reshaping how people work, learn, and communicate (Judijanto et al., 2024). Its growing influence is evident across sectors such as education, healthcare, finance, and entertainment, where intelligent systems now perform tasks that once required human reasoning and interaction. Artificial Intelligence chatbots stand out as some of the most interactive tools. They simulate human conversation using natural language processing and machine learning, enabling real time engagement with users. These systems are deeply embedded in daily communication, assisting in customer care, online

learning, medical consultation, and even social interaction (Hendriks, 2025). From an interactional sociolinguistic perspective, communication is not merely message exchange but a co constructed and socially negotiated process in which meaning emerges through turn taking, contextual cues, and pragmatic alignment between interlocutors whether human or artificial. Their rapid adoption therefore reflects society's shift toward technology mediated dialogue where language remains central to meaning construction between humans and machines. This shift calls for an analysis of how chatbots participate in meaning negotiation, interpret contextual signals, and manage conversational coherence in interaction with human users.

The evolution of chatbots can be traced to the 1960s when Joseph Weizenbaum at the Massachusetts Institute of Technology developed ELIZA, an early conversational program that mimicked a psychotherapist (Bassett, 2019). The invention marked the beginning of efforts to simulate human dialogue through computer programs. Rather than viewing this development as mere technological progress, this study interprets it as the progressive simulation of communicative competence, the ability to use language appropriately within social context. The twenty first century ushered in major advances in natural language processing, big data, and neural networks, allowing for the creation of more sophisticated conversational agents such as Apple's Siri, Amazon's Alexa, and Google's Assistant. These advances reflect an evolution not only in computational design but also in how machines approximate human interactional norms, adapt politeness strategies, and construct coherence through linguistic patterning. A major turning point occurred in 2022 with the introduction of ChatGPT by OpenAI, which demonstrated unprecedented capacity to generate coherent, contextually relevant, and human like responses across diverse fields (Sejnowski, 2024).

AI chatbots are vital systems in sustaining complex interactions, assisting in writing, providing emotional support, and delivering professional services with remarkable fluency. However, this complexity should be understood in discourse terms, manifested through linguistic diversity, pragmatic flexibility, and the ability to align with user intent rather than implying genuine social cognition (Nazeer et al., 2024). Despite these achievements, critical questions arise regarding the linguistic and social quality of chatbot discourse. Unlike human communication, which draws from shared experience, emotion, and social awareness, chatbot communication is generated from algorithms trained on large text datasets. studies by (Kumar et al., 2024; Li et al., 2023) indicated that while AI responses appear fluent, they may lack authentic understanding of context, tone, or intent. This often results in mechanical or inappropriate expressions, especially in situations that require empathy, irony, or cultural sensitivity. For example, a chatbot might misinterpret sarcasm in a customer complaint. It might respond too formally in casual conversation since it often lacks the pragmatic and contextual awareness that guides human interaction. This study therefore sought to establish how AI chatbots construct meaning and manage interaction through language within a discourse analytic and interactionally informed framework.

---

## 2. Study Objectives

The study was guided by the following objectives:

- i. To document the linguistic patterns of AI chatbot discourse as indicators of communicative and contextual meaning
- ii. To determine the socio-pragmatic dynamics reflected in AI chatbot exchanges.
- iii. To evaluate the stylistic and pragmatic appropriateness of AI chatbot language in comparison with human discourse.

---

## 3. Underpinning Theory

This study is grounded in Interactional Sociolinguistics (IS), developed by John J. Gumperz in 1982. The theory holds that communication extends beyond literal word meanings to include contextual cues, shared cultural knowledge, and social norms that guide interpretation (Gumperz, 1999). Meaning is therefore co-constructed through interaction, where participants rely on tone, turn taking, politeness

strategies, and situational context to interpret intentions. In this study, IS is adopted as an interpretive framework, serving to illuminate how discourse patterns reported in existing studies reflect or fail to replicate the interactional principles found in human communication.

This adaptation aligns IS with a discourse analytic approach, recognizing that while the study draws from secondary data, it still engages with the interactional logic underlying language use in human machine communication. Since chatbots lack human social intuition and awareness of context, their responses may appear linguistically correct but socially inappropriate (Chaves & Gerosa, 2021). Therefore, IS provides a theoretical lens for explaining why chatbot communication sometimes achieves grammatical precision but fails to demonstrate pragmatic sensitivity, empathy, or contextual adaptability.

#### 4. Methodology

The study employed a qualitative systematic review design guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 framework (Page et al., 2021). This design was suitable because it provides a transparent and replicable approach to synthesizing existing scholarly evidence rather than collecting new empirical data. The review analysed peer reviewed studies on AI chatbot discourse published between 2020 and 2025 to explore linguistic, and pragmatic features relevant to human–machine communication. The search strategy involved comprehensive electronic searches in established databases including Scopus, Web of Science, Google Scholar, and IEEE Xplore. Boolean operators were applied to refine searches with combinations such as “AI chatbots” AND “discourse analysis,” “linguistic patterns” OR “rhetorical strategies,” and “human computer interaction” AND “socio pragmatic dynamics.” Search results were screened through three stages: title review, abstract screening, and full text assessment. The PRISMA stages of identification, screening, eligibility, and inclusion were followed to ensure methodological transparency. The process is described narratively since the review focused on a relatively small set of studies. Duplicate entries were removed manually, and inclusion decisions were guided by conceptual relevance to linguistic and interactional concerns.

The inclusion criteria covered: peer reviewed journal articles, conference papers, and book chapters written in English between 2020 and 2025. The analysis majored on the linguistic, pragmatic and interactional aspects of chatbot discourse. Excluded were duplicate, non-academic sources and studies that focused solely on computational or algorithmic performance. Although fifteen studies met the inclusion criteria, this sample was sufficient to achieve interpretive depth and thematic saturation typical of qualitative synthesis. The interpretive procedure followed a discourse oriented thematic synthesis process. Each selected study was read repeatedly and coded inductively to identify patterns in language use, socio-pragmatic dynamics, and stylistic appropriateness. The resulting codes were organized into broader interpretive categories that represented dominant tendencies in chatbot communication. This synthesis does not constitute empirical data analysis but an interpretive integration of existing studies to illustrate how AI chatbots approximate or diverge from human discourse practices.

**Table 1.** Linguistic Patterns Observed and Discourse Analysis Insights

S/No	Author(s) & Year	Study Focus / Objective	Methodology	Linguistic Patterns Observed	Discourse Analysis Insights / Interpretation	Implications for Current Study
1	(Rafique et al., 2024)	Examine how ChatGPT impacts vocabulary, syntax, semantics, pragmatics (politeness, deixis, discourse markers) and its influence on language evolution	Corpus-based analysis with NLP tools, POS tagging, surveys, and comparative analysis	Changes in word choice (neologisms), syntactic structure, increased use of politeness markers,	ChatGPT influences pragmatic norms, showing a shift in how generated language engages with human expectations;	Offers patterns of politeness, deixis, discourse marking to compare with and informs syntactic, semantic, pragmatic focus

S/No	Author(s) & Year	Study Focus / Objective	Methodology	Linguistic Patterns Observed	Discourse Analysis Insights / Interpretation	Implications for Current Study
2	(Sandler et al., 2024)	Compare linguistic features between human dialogues vs ChatGPT-3.5 dialogues using LIWC	Quantitative corpus analysis over 19,500 dialogues; statistical comparisons	improved deixis, more formal discourse markers ChatGPT shows higher social process terms, analytical style, positive tone; humans show more variability and authenticity Good at identifying topic structure in general-domain conversations; struggles with hierarchical rhetorical discourse	generated texts display both strengths and limitations AI tends toward polished, idealized style but lacks spontaneity and variability found in human speech	Identifies features distinguishing AI from humans, guiding variable selection for current study
3	(Fan et al., 2024)	Test ChatGPT's ability in discourse analysis tasks (topic segmentation, discourse parsing)	Prompt-based experiments with datasets; evaluation vs human annotations		Shows ChatGPT's surface-level understanding of discourse but limited depth in rhetorical relations	Highlights need to study both topic shifts and deeper rhetorical features
4	(Emara, 2025)	Compare stylistic/linguistic features of ChatGPT vs nonnative ESL student stories	Mixed quantitative-qualitative stylistic analysis with human ratings	AI texts more complex and descriptive; students' texts simpler and repetitive with nonnative errors Chatbot discourse lacks contextual sensitivity	AI tends toward elaborate, well-structured discourse; humans show variability and divergence	Suggests using lexical diversity, complexity, and coherence metrics
5	(Munir et al., 2025)	Explore EFL learners' experiences with AI chatbots focusing on power and identity	Qualitative interviews and Critical Discourse Analysis	Qualitative interviews and Critical Discourse Analysis	CDA reveals shifting power dynamics and constraints in AI discourse	Adds socio-pragmatic features and power relations to discourse analysis scope
6	(Al Hosni, 2024)	Stylistic analysis of AI-generated vs student-written emails	Stylistic analysis of tone, lexical density, diversity, and emotional depth	Stylistic analysis of tone, lexical density, diversity, and emotional depth AI emails: high formality, politeness, and repetition; lack emotional depth; human emails: personal and emotional content	AI flattens personal voice and authenticity	Examines formality, emotional depth, and individuality in chatbot discourse
7	(Perkins Booker et al., 2024)	Analyze laughter in human-socialbot voice interactions	Recorded interactions; coding of laughter events and phonetic analysis	Laughter often short, unvoiced, used to repair conversational breakdowns	Pragmatic mismatches trigger laughter, showing AI limits in paralinguistic management	Encourages including non-lexical/paralinguistic features in analysis

S/No	Author(s) & Year	Study Focus / Objective	Methodology	Linguistic Patterns Observed	Discourse Analysis Insights / Interpretation	Implications for Current Study
8	(Seals & Shalin, 2023)	Argue for pragmatic evaluation beyond syntax for AI dialogue	Theoretical analysis with examples from AI outputs	Syntactically correct sentences can be pragmatically odd or inappropriate. Themes of "cheating," "policy," "integrity" dominate; strong evaluative stances.	Highlights pragmatic failures in AI discourse despite grammaticality	Stresses pragmatic appropriateness and implicature evaluation
9	(Li et al., 2023)	Analyze public Twitter discourse on ChatGPT in education	BERT-based topic modeling with discourse analysis		Shows ideological and evaluative discourse frames around AI	Adds public discourse perspective to chatbot research
10	(Curry et al., 2024)	Identify "star sentences" syntactically correct but pragmatically odd	Conceptual critique using pragmatics	Pragmatic oddities like implicature failures despite correct grammar	Underlines limits of syntactic-only evaluations	Integrate human pragmatic appropriateness ratings in current study
11	(Lysova et al., 2025)	Critical Discourse Analysis of ChatGPT's responses to controversial topics	CDA of chatbot responses	Frequent hedging, neutralization, and framing strategies	Chatbots mediate power/knowledge while masking ideology	Guides inclusion of ideological framing and hedging patterns
12	(Du & Daniel, 2024)	Systematic review of AI chatbots for English learning	Literature review with meta-analysis elements	Frequent focus on corrective feedback and politeness markers, but poor socio-pragmatic depth	Highlights gaps in sociocultural discourse competence of chatbots	Suggests coding for corrective moves and sociopragmatic sensitivity
13	(Jiang et al., 2024)	Human-AI discourse misalignment and communicative competence	Conceptual and review-based synthesis	Identifies register mismatches, misalignment markers, and referential ambiguity	Shows contextual fit is key to successful discourse	Include user perceptions and register alignment in interpretation
14	(Joshi & Bengler, 2024)	Propose a rhetorical framework (ethos, logos, pathos) for designing adaptive conversational agents; examine how rhetoric can help improve human-AI dialogue quality	Theoretical framework, sample application, discussion; human factors / HCI perspective; design theory approach	Conversational agents adapting rhetorical strategies improve trust and user experience; patterns of adaptivity, context sensitivity, tone adjustments	Rhetorical modes help analyze how AI persuades or aligns with user values and context	Include rhetorical features (ethos/logos/pathos), context adaptivity, emotional tone in analysis
15	(Mahmoudi-Dehaki & Nasr-	Compare automated vs manual pragmatic annotation	Empirical corpus study with automated	Automated tools capture surface cues but miss	Highlights need for human coding in nuanced analysis	Combine automated corpus analysis with manual coding

S/No	Author(s) & Year	Study Focus / Objective	Methodology	Linguistic Patterns Observed	Discourse Analysis Insights / Interpretation	Implications for Current Study
	Esfahani, 2025)		tools vs human coders	deep pragmatic inference		

## 5. Results and Discussion

This chapter presents and discusses the results as synthesized in reference to Table 1. The analysis was guided by the study's objectives which were interpreted through the themes that capture the multidimensional nature of AI-generated language.

### 5.1 Linguistic Patterns in AI Chatbot Discourse

Through qualitative synthesis, four major themes were identified; linguistic regularities and formal structuring; rhetorical and persuasive organization, socio-pragmatic adaptability and communicative competence, and stylistic coherence and affective expression.

#### *Theme 1: Linguistic Regularities and Formal Structuring*

Based on the reviewed studies, ChatGPT and related chatbots exhibited control of lexical and syntactic organization. A study by Rafique et al. (2024) found frequent use of politeness markers, deixis, and formal discourse connectors such as "therefore," "moreover," and "however" that depicted textual cohesion. In addition, Sandler et al. observed that chatbot discourse employed a more analytical and positive tone compared to human dialogue, resulting to a spontaneous communication (Sandler et al., 2024). Studies by Hosni and Emara in 2024 & 2025 also confirmed that AI texts demonstrate complex and descriptive structures which lack emotional depth and personal voice (Al Hosni, 2024; Emara, 2025). These findings collectively suggest that AI-generated language is linguistically well-formed but tends to over-emphasize grammatical precision and formal structure at the expense of natural flow of ideas and emotional expression. In terms of interactional sociolinguistics, this pattern reflects limited sensitivity to contextualization cues such as tone or pacing, signaling that AI chatbots organizes meaning through surface syntax rather than shared inference. Therefore, while the reviewed studies agree that AI discourse is structurally coherent, they also reveal that its fluency is derived from statistical predictability rather than pragmatic awareness.

#### *Theme 2: Rhetorical and Persuasive Organization*

Rhetorics was another pattern observed across the literature, showing how AI chatbots use rhetorical strategies to simulate persuasion and engagement. According to a study by Joshi and Bengler (2024), AI tools models should employ rhetorical modes corresponding to ethos, logos, and pathos to establish user trust and alignment. Similarly, Fan et al. found that ChatGPT successfully identifies topic structure in general conversation but struggles with deeper rhetorical discourse relations (Fan et al., 2024). Therefore, this implies that AI chatbots can organize information clearly and use logical structure, but they still lack the deeper persuasive awareness and emotional sensitivity found in human communication. Curry et al. characterized these tendencies through "star sentences" (Curry et al., 2024). These are utterances that are syntactically correct but pragmatically awkward, revealing superficial rhetorical awareness. In addition, the studies by Curry et al., Fan et al., Joshi & Bengler show that while AI models replicate logical appeals and cohesive argumentation, they fail to negotiate interactional meaning through pragmatic cues and mutual adjustment (Curry et al., 2024; Fan et al., 2024; Joshi & Bengler, 2024). This reveals a partial correspondence to the Interactional Sociolinguistics concept of appropriateness, where form and context should align through interpretive cooperation. Thus, the rhetorical competence of chatbots remains mechanical and one-sided, emphasizing clarity and coherence over adaptive interaction.

#### *Theme 3: Socio-Pragmatic Adaptability and Communicative Competence*

Research by Munir et al. reported that chatbot communication is formulaic and contextually insensitive, often reflecting power asymmetries rather than mutual negotiation (Munir et al., 2025). Lysova et al. found that chatbots employ hedging and neutralization to manage controversial topics, illustrating attempts at pragmatic safety instead of genuine stance-taking (Lysova et al., 2025). Seals and Shalin similarly noted that syntactic correctness often masks pragmatic oddities and inappropriate implicatures (Seals & Shalin, 2023). These findings collectively highlight a core divergence between linguistic and communicative competence. In IS terms, chatbots exhibit limited ability to read contextualization cues or perform conversational inference. They depend on politeness conventions and hedging to simulate appropriateness but fail to sustain turn-taking, repair, or context-sensitive response patterns. Hence, socio-pragmatic adaptability emerges as a key deficit that distinguishes AI discourse from authentic human communication.

#### *Theme 4: Stylistic Coherence and Affective Expression*

Studies by Emara & Hosni reports that AI texts are highly formal, polite, and repetitive. They display low emotional appeal compared to human writing (Al Hosni, 2024; Emara, 2025). In addition, Perkins-Booker et al. (2024) noted that even paralinguistic elements like laughter appear short and unvoiced, used mainly to repair conversational breakdowns rather than to express genuine affect. Similarly, Du and Daniel found that while chatbots use corrective feedback and politeness texts, they lack sociocultural discourse competence (Du & Daniel, 2024). This implies that stylistic coherence is achieved through predictability and politeness, but emotional authenticity and interpersonal warmth remain weak.

### 5.2 Socio Pragmatic Dynamics in AI Chatbot Interactions

After synthesizing the reviewed studies, three socio pragmatic themes were identified: Simulated Politeness and Contextual Insensitivity, Turn-taking and Interactional Misalignment and Cue Interpretation and Failure of Pragmatic Inference.

#### *Theme 1: Simulated Politeness and Contextual Insensitivity*

In reference to Table 1, the study found that chatbots often show politeness that is copied rather than real. For example, Rafique et al. found that ChatGPT frequently uses politeness markers such as please and thank you to sound helpful and respectful (Rafique et al., 2024). This shows that the chatbots use polite words automatically instead of understanding when they are needed. In the same way, Hosni reported that AI-generated emails show high formality, politeness, and repetition but lack emotional depth (Al Hosni, 2024). This means that the messages look polite but do not show true feeling of warmth. In addition, Munir et al. explained that chatbot conversation often gives fixed and repeated answers without paying attention to the situation (Munir et al., 2025). This finding connects with Hosni, showing that chatbots politeness is mechanical and not based on real understanding between speakers (Al Hosni, 2024).

#### *Theme 2: Turn-taking and Interactional Misalignment*

The findings by Sandler et al. shows that ChatGPT keeps correct grammar and topic order but fails to notice changes in user intent (Sandler et al., 2024). This means that the chatbot follows the topic of the conversation but does not always understand when the user changes meaning or tone. This contention aligns with a study by Fan et al, who studied how ChatGPT manages conversation flow and found that it can divide topics correctly but cannot handle interruptions or mixed signals during talk (Fan et al., 2024). Perkins et al. also reported that humans often laughed to fix moments of silence or wrong replies from chatbots (Perkins Booker et al., 2024). This implies that users make extra effort to keep the talk going when the chatbot does not respond at the right moment or in an appropriate way. The finding by Perkins Booker et al., Sandler et al., aligns with Jiang et al., who studied human and AI communication and noted that mismatches and unclear references cause misalignment in meaning (Jiang et al., 2024; Perkins Booker et al., 2024; Sandler et al., 2024).

#### *Theme 3: Cue Interpretation and Failure of Pragmatic Inference*

Mahmoudi and Nasr (2025) found that automated tools can recognize clear language signals such as questions and modal verbs but often fail to notice subtle cues like irony, hesitation, or indirect criticism. Their finding aligns with Seals and Shalin, who observed that sentences can be grammatically correct but socially inappropriate when the intended meaning is missed (Seals & Shalin, 2023). Similarly, Curry et al. described “star sentences,” which sound correct in form but lack true meaning because the system does not understand the speaker’s intention and shared knowledge (Curry et al., 2024). These examples show that AI models focus on surface features of language and often ignore the deeper meaning that depends on context. Jiang et al. added that chatbots rarely adjust their level of formality or tone to match the situation, which leads to mismatched replies (Jiang et al., 2024). As a result, users may be required to repeat, reword, or simplify their messages so that the chatbot can respond appropriately. This pattern suggests that meaning in conversation is shaped by human effort rather than AI understanding. From an Interactional Sociolinguistics view, effective communication requires not only correct grammar but also sensitivity to social and emotional cues, a feature that current chatbots still struggle to achieve.

### 5.3 Stylistic Appropriateness and Human Comparison

Across the fifteen reviewed studies, three main themes emerged concerning the stylistic appropriateness of AI chatbot language compared to human discourse. They include; lexical and syntactic control with limited stylistic variation, formulaic politeness and tone use without contextual adaptation, and frequent register mismatches with pragmatic misalignment, showing limited awareness of conversational cues.

#### *Theme 1: Lexical and syntactic control with limited stylistic variability*

A study by Emara examined the linguistic features of ChatGPT-generated stories compared to those written by non-native English learners. Results indicated that ChatGPT produced balanced sentences and descriptive language with strong control of syntax and vocabulary (Emara, 2025). This made its writing appear more polished than that of human learners. In a related studies highlighted aspects of ChatGPT’s controlled but uniform language use (Rafique et al., 2024; Sandler et al., 2024). Sandler et al. reported that ChatGPT responses contained more analytical and positive terms than human dialogues, showing that responses are more structured rather than giving responses which are diverse and natural (Sandler et al., 2024). Rafique et al. further established that ChatGPT frequently used formal discourse markers and politeness expressions, indicating a preference for structured and predictable phrasing (Rafique et al., 2024).

In addition, the findings from Emara, Rafique et al., & Sandler et al., suggest that ChatGPT performs well in constructing clear and cohesive sentences but lacks stylistic flexibility (Emara, 2025; Rafique et al., 2024; Sandler et al., 2024). From an Interactional Sociolinguistics perspective, this uniformity limits the contextual signals that speakers use to show attitude, emotion, or social closeness. Human speakers often change tone and sentence style to express different social meanings, while ChatGPT maintains a steady, formal tone across contexts. This implies that although the model shows strong lexical and syntactic control, it does not demonstrate the stylistic adaptability required for natural and context-sensitive interaction.

#### *Theme 2: Formulaic politeness and limited emotional adaptability*

Findings by Daniel show that ChatGPT relies on politeness markers to sound professional and cautious (Kahneman & Miller, 1986). Hosni also found that AI-generated emails remain formal and polite through constant use of words such as please and thank you (Al Hosni, 2024). Du (2024) observed that while these expressions appear often in educational settings, they do not show real understanding of social relationships or emotional tone. Lysova explained that such responses mainly aim to avoid conflict rather than to show care or empathy. In real human interaction, politeness is not just about using polite words but about knowing when and how to use them to create trust and comfort (Lysova et al., 2025). This is because ChatGPT applies politeness in the same way across situations, it often sounds distant instead of friendly. Human speakers, in contrast, change their tone and style depending on context and relationship, which allows them to express warmth and connection. The reviewed studies therefore show that while ChatGPT maintains a consistent polite tone, it lacks the adaptability needed to respond to emotional and social cues in conversation.

### *Theme 3: Register mismatch and pragmatic misalignment*

Research by Curry et al., Jiang et al., and Seals & Shalin, 2023 shows that ChatGPT tend to generate language that corresponds to grammar rules but not the social situation (Curry et al., 2024; Jiang et al., 2024; Seals & Shalin, 2023). Seals and Shalin observed that sentences may look polished but sound out of context because the chatbot does not fully understand context (Seals & Shalin, 2023). Jiang found that ChatGPT sometimes uses the wrong level of formality or shifts between styles in ways that confuse users (Jiang et al., 2024). Curry also noted that the model can form sentences that meet language standards but fail to capture shared meanings in a conversation (Curry et al., 2024). These problems show that ChatGPT has difficulty managing social cues such as tone, reference, or shifts in perspective. For example, a person may soften disagreement with humor or a gentle phrase, while ChatGPT might respond in a blunt or overly formal way. This means that AI can copy sentence structures but not in similar ways people express attitude or relationship. Studies by Mahmoudi-Dehaki & Nasr-Esfahani, and Munir et al., confirm that AI language lacks deep social awareness and relies mostly on surface cues (Mahmoudi-Dehaki & Nasr-Esfahani, 2025; Munir et al., 2025). Rafique and Sandler also point out that while ChatGPT influences how people use polite and formal language, it cannot adapt through real social experience (Rafique et al., 2024; Sandler et al., 2024). In conversation, meaning depends not only on grammar but on how people adjust to each other. ChatGPT's writing appears clear and structured, but it lacks emotional or relational depth. In addition, studies by Hosni and Seals & Shalin suggest that refined wording can hide these gaps, resulting in communication that sounds correct but lacks true connection (Al Hosni, 2024; Seals & Shalin, 2023). Improving AI language therefore requires systems that can sense context, emotion, and conversational purpose so that stylistic accuracy is matched by genuine social understanding.

---

## 6. Conclusion

The analysis demonstrates that AI chatbots such as ChatGPT produce language that is fluent, grammatically accurate, and stylistically coherent. However, these qualities do not translate into genuine communicative competence. The chatbots exhibit skill in organizing sentences, managing politeness, and maintaining consistency of tone, but their interactional performance remains limited. They often process conversation as text generation rather than as social exchange, missing the contextual cues that guide meaning in real dialogue. This gap between form and function shows that while AI can imitate human-like language, it does not fully engage in the interpretive work that sustains understanding between speakers. In conversational settings, responses appear contextually misaligned, revealing difficulties with turn-taking, repair mechanisms, and adaptation to shifts in tone or topic. Misalignment expose the lack of sensitivity to cues such as deixis, irony, or implicit meaning that human rely on to interpret information. Interactional sociolinguistics views such cues as central to meaning construction, since they enable participants to align frames and negotiate understanding in context. The findings here suggest that chatbots operate within a reduced interactional frame where language functions as transmission rather than negotiation. Their discourse, though structurally sophisticated, lacks the relational and inferential grounding that makes communication dynamic and co-constructed.

---

## 7. References

- [1] Al Hosni, J. (2024). Stylometric Analysis of AI Chatbot-Generated Emails: Are Students Losing Their Linguistic Fingerprint? *Journal of English Language Teaching and Applied Linguistics*, 6(3), 33–42.
- [2] Bassett, C. (2019). The computational therapeutic: exploring Weizenbaum's ELIZA as a history of the present. *AI & SOCIETY*, 34(4), 803–812.

- [3] Chaves, A. P., & Gerosa, M. A. (2021). How should my chatbot interact? A survey on social characteristics in human–chatbot interaction design. *International Journal of Human–Computer Interaction*, 37(8), 729–758.
- [4] Curry, N., Baker, P., & Brookes, G. (2024). Generative AI for corpus approaches to discourse studies: A critical evaluation of ChatGPT. *Applied Corpus Linguistics*, 4(1), 100082.
- [5] Du, J., & Daniel, B. K. (2024). Transforming language education: A systematic review of AI-powered chatbots for English as a foreign language speaking practice. *Computers and Education: Artificial Intelligence*, 6, 100230.
- [6] Emara, I. F. (2025). A linguistic comparison between ChatGPT-generated and nonnative student-generated short story adaptations: a stylometric approach. *Smart Learning Environments*, 12(1), 36.
- [7] Fan, Y., Jiang, F., Li, P., & Li, H. (2024). Uncovering the potential of ChatGPT for discourse analysis in dialogue: An empirical study. *arXiv. ArXiv Preprint ArXiv:2305.08391*.
- [8] Gumperz, J. (1999). On interactional sociolinguistic method. *Talk, Work and Institutional Order: Discourse in Medical, Mediation and Management Settings*, 453, 471.
- [8] Hendriks, P. (2025). The Impact of Human–Artificial Intelligence Collaboration on Learning in Teams, Organizations, and Society.
- [9] Jiang, T., Sun, Z., Fu, S., & Lv, Y. (2024). Human-AI interaction research agenda: A user-centered perspective. *Data and Information Management*, 8(4), 100078.
- [10] Joshi, R., & Bengler, K. (2024). Crafting Human-AI Interaction: A Rhetorical Approach to Adaptive Interaction in Conversational Agents. *Proceedings of the 12th International Conference on Human-Agent Interaction*, 314–322.
- [11] Judijanto, L., Syarif, M., & Santoso, R. Y. (2024). Integration of artificial intelligence in 21st century education curriculum. *Indonesian Journal of Education (INJOE)*, 4(1), 914–924.
- [12] Kahneman, D., & Miller, D. T. (1986). Norm theory: Comparing reality to its alternatives. *Psychological Review*, 93(2), 136.
- [13] Kumar, Y., Lin, M., Paredes, C., Li, D., Yang, G., Kruger, D., Li, J. J., & Morreale, P. (2024). A Comprehensive Review of AI Advancement Using testFAILS and testFAILS-2 for the Pursuit of AGI. *Electronics*, 13(24), 4991.
- [14] Li, L., Ma, Z., Fan, L., Lee, S., Yu, H., & Hemphill, L. (2023). ChatGPT in education: A discourse analysis of worries and concerns on social media. *arXiv 2023. ArXiv Preprint ArXiv:2305.02201*.
- [15] Lysova, I., Ahmed, L., Cunningham, B., Huang, Y., & Wiltschko, M. (2025). Do chatbots dream of AI sheep? A semantic–pragmatic investigation of. *AI & SOCIETY*, 1–10.
- [16] Mahmoudi-Dehaki, M., & Nasr-Esfahani, N. (2025). Automated vs. manual linguistic annotation for assessing pragmatic competence in english classes. *Research Methods in Applied Linguistics*, 4(3), 100253.
- [17] Munir, B., Sulaiman, U., Rasyid, M. N. A., & Afif, A. (2025). EFL Student’s Experiences with AI Chatbots: A Critical Discourse Analysis. *Langkawi: Journal of The Association for Arabic and English*, 11(1), 177–189.
- [18] Nazeer, I., Khan, N. M., Nawaz, A., & Rehman, J. (2024). An experimental analysis of pragmatic competence in human-ChatGPT conversations. *Pakistan Journal of Humanities and Social Sciences*, 12(1), 424–435.
- [19] Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., & Moher, D. (2021). Updating guidance for reporting systematic reviews: development of the PRISMA 2020 statement. *Journal of Clinical Epidemiology*, 134, 103–112.
- [20] Perkins Booker, N., Cohn, M., & Zellou, G. (2024). Linguistic patterning of laughter in human-socialbot interactions. *Frontiers in Communication*, 9, 1346738.
- [21] Rafique, H., Nazeer, I., & Rehman, J. (2024). The impact of ChatGPT on language evolution: A linguistic analysis. *Journal of Education and Social Studies*, 5(1), 56–68.
- [22] Sandler, M., Choung, H., Ross, A., & David, P. (2024). A linguistic comparison between human and ChatGPT-generated conversations. *International Conference on Pattern Recognition and Artificial Intelligence*, 366–380.

- [23] Seals, S. M., & Shalin, V. L. (2023). Discourse over discourse: The need for an expanded pragmatic focus in conversational ai. ArXiv Preprint ArXiv:2304.14543.
- [24] Sejnowski, T. J. (2024). ChatGPT and the future of AI: The deep language revolution. MIT Press.