

AI Efficiency vs. Human Proficiency in Interpreting Political Discourse Between English and Arabic: A Contrastive–Comparative Study

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Abstract—This study compares the efficiency of artificial intelligence (AI)-based interpreting systems with the proficiency of human interpreters in translating political discourse between English and Arabic. The research focuses on selected 2025 speeches by Abdel Fattah El-Sisi and Donald Trump to evaluate how effectively AI tools and human interpreters handle the rhetorical, pragmatic, and cultural dimensions of contemporary political communication. A comparative–contrastive qualitative discourse analysis was conducted to analyze these original speeches alongside their AI-generated and human-interpreted versions. The analysis draws on established cognitive and pragmatic frameworks to assess interpretive accuracy, pragmatic relevance, rhetorical fidelity, and processing demands. The findings indicate that while AI systems demonstrate high efficiency in lexical consistency, fluency, and formulaic language, they remain limited in capturing ideological nuance, cultural connotation, and pragmatic implicature. Human interpreters, despite cognitive constraints inherent in real-time interpreting, outperform AI in conveying contextualized meaning, emotional tone, and rhetorical intent. The study concludes that a hybrid, augmented-intelligence model that integrates AI efficiency with human interpretive judgment is the most effective approach to interpreting political discourse, thus reinforcing the indispensable role of human interpreters in high-stakes political communication.

Index Terms—artificial intelligence (AI), human interpreting, political discourse, English–Arabic

I. INTRODUCTION

A. Efficiency vs. Proficiency

This study aims to differentiate efficiency and proficiency by focusing on the differences between artificial intelligence (AI) interpreters and human interpreters of political discourse. Efficiency is defined in terms of AI's capabilities in terms of speed, consistency, scalability, and surface-level language generation accuracy. The proficiency of interpreters is defined in terms of their training, experience, pragmatic sensitivity, contextual knowledge, cultural knowledge, and rhetorical knowledge in terms of contextual knowledge. Though AI interpreters have high speed and consistency in generating language, they have limited abilities in terms of making inferences. This differentiation is the underlying concept of the problem of how AI's efficiency could support human interpreters' proficiency in political discourse.

B. Competence and Performance

The difference between competence and performance that Chomsky first suggested is an interesting model that is applicable in examining both AI systems and human interpreters in political discourse, since both have underlying knowledge that is manifested in their execution. The AI system shows its competence in terms of linguistic rules programmed into its system, training data, and statistical models, while its performance is manifested in its real-time processing and response generation. Meanwhile, human interpreters have competence in terms of underlying knowledge that is linguistic, cultural, or cognitive in nature, while their performance is manifested in their construction of meaning in response to contextual constraints. The similarities in terms of competence and performance in AI systems and human interpreters point to the theoretical possibility of an integrative model.

C. Problem of the Study

Political discourse is a complex linguistic and rhetorical phenomenon with cultural implications. It is used to convey ideology and persuade. The comparison of English and Arabic is quite complex because the rhetorical traditions of these languages are different. The dialectics of these two languages are quite complex. However, the efficiency of the recent AI interpreting systems is quite impressive. The recent AI interpreting systems mostly employ statistical methods rather than inferential methods to preserve ideological distinctions and pragmatic and cultural implications. The above-mentioned factors are quite important in the context of political discourse because the misinterpretation of the discourse might affect the overall implications. Therefore, this study compares the efficiency of AI and the skills of humans in the context of the translation of political discourse. The data of this study consist of the speeches of Abdel Fattah El-Sisi and Donald Trump in the year 2025.

D. Hypothesis of the Study

This research suggests that AI interpreting systems and human interpreters work best in complementary relationships, rather than competing modalities. AI systems perform better than human interpreters on measures of processing speed, consistency, and general lexical handling, while human interpreters are stronger at inference, cultural intelligence, rhetoric, and context inference. Hence, the central hypothesis is that a hybrid, augmented-intelligence model combining AI efficiency and human interpretive judgment is the best approach to understanding complex political discourse.

This research is based on the interpretations of 2025 political speeches of Abdel Fattah El-Sisi and Donald Trump, which have been selected based on their worldwide importance and complexity of their rhetoric. The English-Arabic interpretations of these speeches by some of the numerous AI interpreters available in 2025 (ChatGPT Plus, Smartcat, Transmonkey, CapCut, etc.) are analyzed, in addition to those of human interpreters in real-time settings or official settings. The reason for selecting only one year is that it made it easier to assess the capabilities of AI interpreters available in 2025.

E. Objectives of the Study

This study aims to evaluate the performance of AI interpretation systems and human interpreters in English-Arabic interpretation of political discourse. It also aims to assess the practical, rhetorical, and cultural challenges associated with AI interpretation systems. The study is guided by relevance theory and Gile's effort model in explaining similarities and differences in AI interpretation systems and human interpreters in interpretation, with a view to establishing a hybrid model.

F. Research Questions

1. How effective are 2025 AI systems in translating political speeches between English and Arabic?
2. How effective are human interpreters in translating political speeches between English and Arabic?
3. What types of rhetorical, pragmatic, and cultural challenges arise in the translation of political speeches?
4. How do relevance theory and the Gile's effort model explain the strengths and weaknesses of each interpretive mode?
5. What could a hybrid model combine AI efficiency and human proficiency in the interpretation of political discourse?

This study contributes to interpreting studies and discourse analysis because it provides a contemporary comparative-contrastive evaluation of AI and human interpreting competence and performance. This work responds to a critical gap in the literature by proposing a hybrid model in which AI efficiency and human interpretive skill complement each other's abilities for the interpretation of political discourse.

II. LITERATURE REVIEW

This article examines the literature comparing AI and human proficiency in translating political discourse between English and Arabic. It synthesizes important research on translating political discourse; human interpretation, ability, and performance; AI translation applications; and the challenges specific to English-Arabic pairs. In addition, it reviews comparative and contrastive studies on human and AI interpreting, identifying numerous gaps in the research—notably those with a focus on political discourse and hybrid interpretive models. This synthesis situates this paper within the broader literature and establishes the conceptual framework for this study of convergence and divergence between AI and human interpretation in political communication.

A. Translating Political Discourse Between English and Arabic

Political discourse is a broad field in which elements of persuasion, ideology, and culturally specific rhetoric strategies intersect, with interpretation involving the translation of language, political intention, power relations, and sociocultural contexts. The translation of political discourse from English into Arabic or vice versa is complex due to differences in rhetoric strategies used in both languages. Arabic political discourse is highly sentimental, carries religious references, and uses metaphors, whereas English political discourse is brief, politically driven, and argumentative. Such differences make it difficult for interpreters to translate political discourse, as they have to go through tone, ideology, and pragmatics, all while being on the margins of communication, especially in high-privilege communication situations where misinterpretation could have political consequences. Such complexities in English-Arabic political discourse have been identified in previous studies. For example, Al Sharoufi and Al-Fadhli (2025) argue that English-Arabic political discourse interpretation often results in misrepresentation, which translates into pragmatic loss with political consequences. Liu (2023) also indicates that non-standard political rhetoric is highly pressurizing on interpreters' strategic decisions. The complexities in English-Arabic political discourse interpretation have been confirmed in previous studies. For example, previous studies have confirmed that English-Arabic political discourse interpretation is both ideological and pragmatic, making it appropriate for examining human and AI interpreters' performance.

B. Interpreting by Human Interpreters

Human interpretation, as a cognitive process, has been proved to be cognitively demanding. This is supported by various models of interpretation, such as Gile's effort model, and pragmatic models such as relevance theory. The cognitively demanding nature of the process requires interpreters to deal with implicit meanings, ambiguity, and cultural expressions with contextual intelligence and flexibility, particularly in the event of considerable changes in the topic, tone, and strategies used in the discourse.

Although there are limitations to human performance, as seen in the studies of fatigue and cognitive overload, there are also significant strengths, as seen in the studies of adaptability and contextual intelligence. In a study by Liu (2023), interpreters are shown to adaptively respond to unconventional and unscripted political discourse, while a study by Al Zahran (2021) showed that interpreters use adaptive strategies of their own to structure unconventional and unscripted political speeches. In both studies, time constraints are used by interpreters to alter collocations and retain messages. The studies of both Al Zahran and Liu establish human interpretation as the reference point in the literature, against which AI interpreting systems are typically evaluated in political contexts.

C. AI in Interpreting

AI employs massive neural networks that have been trained on numerous languages to understand speech (e.g., ChatGPT, Smartcat, Transmonkey, and CapCut). Such AI is highly efficient in terms of speed, consistency, and vocabulary. However, there have been numerous studies that have proved that AI is not effective in pragmatic interpretation, idioms, cultural references, discourse incoherence, etc., especially in English-Arabic interpretation due to structural asymmetry, morphological complexity, and diglossia (Ameur et al., 2020). As a further drawback in AI interpretation, it is also not effective in dealing with rhetoric, indirect speech acts, irony, or ideological discourse. Therefore, even though AI is highly efficient in interpretation, it is not effective in politically complex situations that demand contextual sensitivity.

D. English–Arabic Interpreting Challenges

Language, idiomaticity, and rhetoric in political discourse in English and Arabic are problems for interpreters. Political discourse in Arabic, in specific, with the employment of metaphor, indirectness, and religion/culture-laden rhetoric, often involves dense rhetoric, argumentative expression, and sociocultural presuppositions. On the other hand, political discourse in English involves indirect action and ambiguity. The rhetoric in Arabic is comparable to that in English in terms of brevity, explicit argumentation, and implicit pragmatic meaning.

These factors affect the understanding of modality, politeness, evidentiality, and rhetoric, which often necessitate interpretive work and non-literal translation. Moreover, the morphological intricacy, diglossia, scarcity of quality political discourse, and poor sociopolitical inference make it difficult for AI to interpret human speech, which necessitates cross-cultural competence, contextual understanding, and strategic adaptation (Alayba, 2025). Moreover, the empirical studies of political discourse in these two languages have also confirmed the difficulties in interpreting them. To illustrate, Al Zahran (2021) found that interpreters often apply compensation strategies in interpreting political collocation, and Liu (2023) found that the use of subtle and rapid political speech could intensify cognitive pressure.

These analyses of political discourse in both languages demonstrate that English-Arabic political discourse is a formidable test case for both human and artificial intelligence interpreters.

E. Comparative–Contrastive Studies Between Human and AI Interpreting

While there is extensive research on AI-based translation and human interpretation, comparative and contrastive research on the performance of AI and humans in politically sensitive English–Arabic interpretation is limited. Studies have shown that AI performs well in routine and predictable language tasks, whereas humans perform well in contextual reasoning, pragmatic interpretation, and discourse-level interpretation. AI-based interpretation in politically sensitive situations is limited to the literal interpretation of the text, which leads to pragmatic loss, tone distortion, and loss of rhetorical force, whereas humans strategically reinterpret and empathize with the communication intent. This is supported by the findings of the research data. For example, Vanmassenhove et al. (2019) found ideological neutralization in the AI-based translation of the headlines of the political discourse, whereas Al Sharoufi and Al-Fadhli (2025) found that practical misrendering is common in the interpretation of the discourse of the politically sensitive text of the English–Arabic interpretation performed by humans. No modality is perfect; however, the strengths and weaknesses of AI and humans are consistently different, which is important in comparative and contradictory research.

F. Gaps in the Literature

Although there is increasing research on AI translation and human interpretation, the comparative analysis of the functions of AI and human interpretation in the context of politics is scarce. There is a noticeable absence of research on the English-Arabic translation of political discourse. The research carried out in the past has been focused on translation and general interpretation rather than the translation of real-time political discourse. The latter is likely to be more complex in terms of rhetoric, pragmatics, and ideology than the former. Furthermore, the emphasis in the majority of the studies has been on accuracy and literal translation without taking into consideration the discourse-level meanings and the ideology that are central to the context of politics. The hybrid approach to interpretation has been neglected in the context of AI and human interpretation. This provides the rationale for the context-specific research carried out in this study.

G. Theoretical Framework

This study uses two approaches. The first is Gile's effort model, which deals with cognitive constraints on human interpretation. The second is relevance theory, which considers meaning beyond linguistic form. This is a coherent approach for comparing human and AI interpretation of English-Arabic political discourse.

(a). Gile's Effort Model

Gile's (1985, 1995) effort model is a basic cognitive model of interpretation that understands interpretation as a process of coordination of limited resources, rather than a transfer of linguistic powers. The model understands interpreters to be positioned near the boundaries of cognitive capacities, such as listening, analysis, production, memory, coordination for simultaneous interpreting, etc., which include corresponding needs such as note-taking, memory reconstruction, etc. Failures, omissions, or distortions can happen when the demands on the capacity exceed the capacity itself because of the speed of delivery, political rhetoric, and culturally laden expressions. This understanding of the saturation of human capacity can be used to assess the performance in interpreting the complex English-Arabic political discourse from a cognitive standpoint, as it recognizes the limitations of human capacities as opposed to those of AI systems.

(b). Relevance Theory

The medium of meaning is through the use of words that create a cognitive effect. Sperber and Wilson (1986) developed the relevance theory, which is based on the assumption that the process of communication is governed by the principle of optimal relevance. This means that the speaker's utterances are assumed to provide the recipient with sufficient cognitive effects without requiring excessive processing difficulty. Thus, the meaning is not contained in the linguistic form but is derived through the use of contextual knowledge and the integration of assumptions. Relevance theory is helpful in understanding the process of interpretation of meaning, especially in relation to the process of implicature, ideological framing, metaphor, and political persuasion, both at the human and AI levels.

H. Application to Interpreting

This exploration of interpreter performance and consideration of human and AI interpreter differences is grounded in the application of Gile's effort model and relevance theory. The effort model is a cognitive approach that examines the cognitive strain that human interpreters face. The cognitive strain that human interpreters face is examined in terms of dense rhetoric, fast delivery, and unfamiliar terms. The effort model also enables the assessment of human interpreter performance in terms of processing strain and comparing it with AI interpreter performance, which is not influenced by cognitive fatigue. The application of relevance theory also supports this exploration in terms of pragmatic inference and contextual assessment, which is beyond the language and in which human and AI interpreters perform poorly. The integration of these theories supports the hypothesis that a human and AI interpreter model is likely to be effective in meeting the demands for political discourse interpretation.

III. METHODOLOGY

A. Research Design

This study employs a qualitative comparative research design to examine the efficiency of AI and the ability of humans to understand English and Arabic discourse. The design treats AI and human interpretation as multiple modalities of convergence and divergence, in which the designers maintain both competency-performance and competence-performance models. Thus, a combined comparative and contrastive approach is used to identify similarities in interpretation and differences in lexical choice, pragmatic reasoning, rhetorical handling, and cultural mediation. This design is well-suited to a study of political debate, where interpretation requires understanding of context, ideology, and persuasive intentions.

B. Data Sources (Materials)

The speeches analyzed in the study are Abdel Fattah El-Sisi's address at the Sharm El-Sheikh Summit for Peace on October 13, 2025, and Donald Trump's address to the American people on June 21, 2025. Three parallel analyses are conducted with original videos and transcripts, certified human-interpreted versions broadcast by AlArabiya (English) and Al Jazeera (Arabic), and AI-generated interpretations from modern systems available in 2025 (i.e., ChatGPT Plus, Smartcat, Transmonkey, and CapCut). These speeches were selected for their rhetorical density, cultural allusions, and practical complexity.

C. Analytical Framework

The analytical model utilizes contrastive discourse analysis, relevance theory, and Gile's effort model to allow a multi-layered study of interpreting performance, examining both AI and human modes.

Relevance Theory Component

Relevance theory was first adapted to the study of translation and interpretation by Sperber and Wilson (1986) and subsequently applied to interpretive analysis by Gutt (2000). The measures in this study are inferential processing, pragmatic enrichment, implicature management, and contextual appropriateness.

Cognitive Effort Component

Gile's (1985, 1995) effort model provides a cognitive framework for examining how processing load affects interpreting performance. The model explains how the human body communicates through listening, memory, and production and coordination efforts, and how this compares with the performance of AI, which does not exhibit cognitive fatigue but cannot correctly interpret inference.

Contrastive-Comparative Component

The comparative phase identifies areas of interpretation output that share similarities (e.g., shared lexical choices, similar rhetorical renderings), while the contrastive phase highlights differences in accuracy, coherence, rhetorical effectiveness, and cultural appropriateness. These dimensions were chosen to assess the competence and performance of the two interpretive practices.

D. Evaluation Criteria

The interpretive output is analyzed in four domains, each of which is related to the rhetorical, pragmatic, and cultural objectives of the present study: (1) lexical and terminological accuracy in the use of specialized political vocabulary; (2) pragmatic relevance in clarifying intended meanings, implicit assumptions, ideological positions, and implications; (3) cultural and ideological integrity in preserving sociopolitical references and nuance; and (4) rhetorical integrity in reproducing persuasive strategies (metaphors, repetitions, emotional appeals, and ideological framing).

E. Comparative vs. Contrastive Approach

As seen above, the evaluation criteria were applied in a comparative manner to the translation and interpreting results. The comparative part of the evaluation focuses on the common grounds that may exist between human speech and AI-generated words, such as the area of common semantic renderings, practical strategies, and discourse organization. In addition, there are differences in interpretive accuracy, cultural sensitivity, and rhetorical strategies. The use of both techniques was instrumental in achieving a comprehensive analysis of the common grounds and critically evaluating the advantages and disadvantages of both. The results of the analysis are useful in ascertaining the efficiency of AI-generated political discourses and the sensitivity of human interpreting in political discourse.

IV. RESULTS

The accuracy of the interpretations was measured in four aspects: lexical and terminological accuracy, practical relevance, cultural and ideological correctness, and rhetorical integrity. For each of the two speeches, there were 25 samples analyzed. The results showed the degree of convergence and divergence between the AI-generated and human interpretations.

A. Results of the Arabic Speech (El-Sisi): Human vs. AI Interpretation

(a). Lexical and Terminological Accuracy

The AI systems employed standardized political vocabulary and idiomatic expressions in their translations, as demonstrated in the Arabic-English data set. For example, the phrase “بارقة الأمل” (a ray of hope), when translated by the AI systems, became “a genuine ray of hope,” while the phrase was translated to “a glimpse of hope” by the human interpreters. Moreover, the AI systems translated the phrase “الأفق السياسي اللازم لتنفيذ حل الدولتين” (the political horizon necessary for implementing the two-state solution), which in the context of formal diplomatic communication is written in capital letters as “Two State Solution,” while the human interpreters failed to convey the propositional meaning of the phrase in a formal and standardized way.

While translating the metaphorically rich phrase “القيادة الحقيقية ليست في شن الحروب” (true leadership is not in waging wars), the AI systems not only translated the phrase but also rearranged it to make it idiomatic in English, as in the phrase “true leadership is measured not by the initiation of wars.” The phrase, when translated by the human interpreters, reflected the influence of the original phrase's word order and structure, leading to less idiomatic expressions in English.

Observed pattern:

- AI: higher terminological fluency and idiomatic restructuring
- Human: accurate but occasionally literal or syntactically constrained

(b). Pragmatic Relevance

Both AI and human interpretations conveyed the essential propositional content of directive and performative speech acts. For instance, in the formulaic speech act of diplomatic language “...اسمحوا لي أن أدعو” (allow me to invite...), the AI responses were fluent, whereas the human interpretations were punctuated by pauses. For an illustration of speech acts with implicit regional or ideological connotations, consider “فلتكن حرب غزة آخر الحروب.” The AI output extends the pragmatic scope to “the last war in the Middle East,” whereas the human interpretations remained literal.

Observed pattern:

- AI: pragmatic enrichment and smooth delivery
- Human: surface-faithful rendering with limited inferential expansion

(c). *Cultural and Ideological Adequacy*

The AI systems consistently retained the religious formulas and honorific expressions. The opening formula 'بسم الله' (In the name of Allah, the Most Gracious, the Most Merciful) and the honorific 'رحمه الله' (may Allah bless his soul) were translated into culturally recognizable English equivalents by the AI systems. In contrast, the human interpreters sometimes dropped the formulaic religious opening and over-literalized the culturally embedded expressions.

Observed pattern:

- AI: full retention of cultural and religious formulas
- Human: selective omission and literalization

(d). *Rhetorical Fidelity*

The AI also reproduced rhetorical parallelism, antithetic structure, and metaphorical contrast in its rendering of persuasive text. For example, "سلام لا تصنعه الحكومات وحدها... بل تبنيه الشعوب" (Peace is not made by governments alone, but built by peoples) was correctly translated by AI with antithesis and syntactic balance, although human interpretations sometimes disrupted rhetorical balance due to syntactic errors.

In metaphor-heavy persuasive text such as "مدوا أيديكم لتعاون" (Extend your hands so that we may cooperate) and "تبنى مدنه بالأمل بدلاً من أن تدفن ذكريات أصحابها" (Cities built on hope rather than burying their owners' memories), AI translated metaphorical imagery into idiomatic diplomatic language, whereas human interpretations retained literal imagery.

Observed pattern:

- AI: rhetorical symmetry and stylistic polish
- Human: semantic accuracy with reduced stylistic intensity

B. *Results of the English Speech (Trump): Human vs. AI Interpretations*

(a). *Lexical and Terminological Accuracy*

The two modalities were fairly accurate in their translation of military and political terms. For example, the term "precision strikes" was translated to "ضربات دقيقة" by the human translators, whereas the AI translated it to "ضربات هائلة" at times, which were not in the original text.

Observed pattern:

- AI: occasional over-interpretation
- Human: terminological restraint and fidelity

(b). *Pragmatic Relevance*

The AI systems also maintained evaluative and religious statements in monologic discourse, such as "we love you, God," which is translated to "نحن نحبك يا رب" (we love you, Lord). The interpretations made by humans sometimes included grammatical mistakes and omissions due to time pressure, especially in emotionally charged discourse.

Observed pattern:

- AI: textual completeness
- Human: selective omission under cognitive load

(c). *Cultural and Ideological Adequacy*

Both modalities were successful in conveying nationalist and religious phrases like "American Patriots" and "God Bless America." The AI results showed grammatical and morphological accuracy, and the human interpretations showed immediacy and appropriateness for the Arabic political discourse.

Observed pattern:

- AI: grammatical and morphological precision
- Human: pragmatic adaptation to Arabic political register

(d). *Rhetorical Fidelity*

Both AI and the human interpreter were able to accurately convey the highly formulaic type of evaluative rhetoric, e.g., "spectacular military success." However, the AI interpreter frequently employed explicitation or universalization of the historical, e.g., "there has never been a military..." was translated to "لم يوجد في التاريخ جيش" (there has never existed in history an army...). With the human interpreter, the rhetorical ambiguity and proportionality were more closely retained.

Observed pattern:

- AI: clarity-oriented explicitation
- Human: preservation of rhetorical intent

C. *Cross-Speech Comparative Results*

Through the analysis of both speeches, certain patterns have been observed. It was seen that AI systems showed strict terminological consistency, whereas there were certain minor lexical inaccuracies by the human interpreters, probably because of time constraints. Human interpreters proved to be more effective in ideologically sensitive settings, whereas AI systems proved to be more effective in formal and religious pragmatics. In the field of cultural justice, AI systems showed a tendency to stick to formulaic emphases, whereas human interpreters showed a tendency to use a few rhetorical

formulas. In the field of rhetorical authenticity, human interpreters showed a more sensitive use of emotional and ideological accents than AI outputs, as the latter showed a tendency to "flatten and overpolish" their work.

V. DISCUSSION

This study aimed to examine human and machine interpretations of political discourse. The study was conducted qualitatively and comparatively, guided by relevance theory, Gile's effort model, and contrastive discourse analysis. The empirical part of this study was conducted in response to the need for further exploration and understanding of political interpretation in terms of the development of sophisticated AI technology (Liu, 2023; Al Sharoufi & Al-Fadhli, 2025).

This study is different from previous studies that only examined machine and human translations and interpreting (Ameur et al., 2020; Koehn, 2020), as it examined both machine and human interpretations in the context of political discourse, which is known to be ideologically dense and pragmatically demanding (Wodak, 2021; Onyshchak et al., 2023). The experiment aimed to test the accuracy of machine and human interpretations, as well as verify that it managed linguistic, pragmatic, cultural, and rhetorical complexities. Moreover, it aimed to test if it is theoretically and practically defensible to combine human and machine interpretations. This is significant as it expanded knowledge and understanding of human vs. machine as an interpretation rather than an evaluation.

A. *AI Interpreting Strengths and Constraints in Political Discourse*

With regard to the answer to the first of the research questions, the accuracy of the AI systems, there is clear evidence of the accuracy of the AI system in the sense that it is highly adept in the writing sphere, with high lexical accuracy, terminological consistency, and surface fluency. This is in line with other studies based on the application of neural machine translation, which indicated that the AI system excels in the translation of the standard political and diplomatic lexicon (Koehn, 2020; Ameur et al., 2020). As indicated in the study by Läubli et al. (2018), the output of the AI system is often linguistically coherent and is capable of processing audience input quickly.

However, with regard to the indirect dimension of RQ1, the analysis indicates that the AI system is also limited in the sense that it is not capable of capturing ideological complexity, emotional intensity, and culturally embedded rhetorical strategies. This is indicated in the analysis of Trump's speech, in which the output of the AI system is often over-polished, hyperliteral, and ideologically intense in ways that are not intended by the author. Other studies indicating the shortcomings of the AI system include Vanmassenhove et al. (2019), Al Sharoufi and Al-Fadhli (2025), and Alayba (2025). Although the AI system is not based on inferential grounding, it is still capable of inferring; thus, it is of practical use in addressing the formal issues of RQ1 but is not pragmatically or rhetorically functional in politically charged discourse.

B. *Human Interpreting Proficiency in Relation to Prior Evidence*

In response to RQ2 on human interpreters' ability, most of the data suggest that human interpreters possess superior knowledge in rhetorical, emotional, contextual, and ideological dimensions in political communication. This result is similar to that reported in Liu (2023) on English–Arabic simultaneous interpretation of non-standard political speeches, which indicates that human interpreters always focus on pragmatic intentions and ideological stances in interpreting under severe time pressure.

Similarly, as reported in Li and Chmiel (2024), human interpreters in this study are also found to be more sensitive to threats, appeals, and metaphors in emotionally charged discourse. However, in response to RQ2, it is also confirmed that human interpreters' proficiency is limited by cognitive capacity in real time predicted by Gile's effort model, as reported in previous studies (Gile, 1995; Liu, 2023). The disqualifications, omissions, literal carry-overs, and syntactic slips in the data indicate that human interpreters' performance is due to effort saturation rather than talent deficiency. This is also consistent with the widely recognized fact that human interpreters' talent lies in knowledge rather than speed.

C. *Interpreting Challenges Compared to the Literature*

In response to the third research question on the types of rhetorical, pragmatic, cultural, and ideological challenges involved in political discourse, the study found that the rhetorical density, culturally embedded references, religious formulas, ideological presuppositions, and pragmatic implicatures are the types of challenges involved in the interpretation of the political discourse of 2025. This is in line with the findings of the previous study on political discourse (Onyshchak et al., 2023).

For example, the rhetorical challenges involved in metaphor, parallelism, and evaluation-enhancing intensification are in line with the findings of the previous study by Onyshchak et al. (2023). This is because the translocation of rhetorical balance into English is required without the loss of persuasive power. For example, the practical losses involved in the interpretation of the English-Arabic political discourse, as discussed in the study by Alayba (2025), in the context of pragmatic loss in political discourse, are in line with the qualitative losses involved in the interpretation of the political discourse, which include implicature and position-taking. Additionally, the cultural and ideological constraints involved in the interpretation of the discourse are in line with the findings of the previous study by Vanmassenhove et al. (2019) that the types of political identity cues are ill-matched in AI-generated discourse.

D. *Explanatory Power of Relevance Theory and Gile's Effort Model*

Based on the answer to the fourth research question of how relevance theory and Gile's effort model each account for the strengths and weaknesses of AI and human interpreting in terms of their performance, the present study revealed that when these theories are synthesized, an accurate account of performance is given. This is in line with the previous studies of these theories in terms of their continued relevance to modern AI-assisted interpreting (Gile, 1995; Gutt, 2000).

Regarding AI's performance, relevance theory offered evidence of the accuracy of the output in terms of ensuring that the highest level of linguistic relevance is met when the output is clear and fluent. However, the output of the system may not be inferentially enriched in terms of inferring the intention, ideological framing, and emotion of the speaker, which is essential in ensuring that the output is inferentially enriched and not just linguistically accurate. This is in line with Gutt (2000), which stated that relevance is not formal but inferential enrichment.

With regards to the answer to the fourth research question in terms of the performance of human interpreters, the present study revealed that the performance of interpreters in terms of their limitations in terms of pausing, omitting, and hesitating is in line with Gile's (1995) and Al Zahran's (2021) account of coordination and production effort overload.

However, unlike the output of the AI system, which is not dependent on the cognitive effort of the system and is in line with the absence of cognitive effort in computational linguistics (Koehn, 2020), the output of the interpreter is not dependent on the cognitive effort of the interpreter but is still not pragmatically adequate and sensitive to the context of the conversation. This is because of the contradiction between cognitive processing and cognitive depth, which is revealed in the absence of cognitive effort in the output of the AI system.

E. Toward a Hybrid AI–Human Interpreting Model

In answer to research question 5 that posed the possibility of developing a hybrid paradigm of AI efficiency and human interpretive skill, it is evident that the AI-human blended model of interpretation that the research has found can address the gap in the body of research that has focused on the ways in which AI efficiency can be harnessed or optimized in an interpreting context, such as in politically sensitive discourse (Liu, 2023; Al Sharoufi & Al-Fadhli, 2025). However, little empirical research has been done to quantify how such complementary strengths can be functionally integrated.

The findings indicate an opportunity for such an AI-human collaborative model of interpretation, in which AI can assist with terminology accuracy, syntactic support, and formulaic language support to ease cognitive overload, with humans being responsible for pragmatic inference, ideological assessment, and rhetorical interpretation. This is theoretically in line with Relevance Theory's balance of language clarity and contextual intent, and Gile's effort model of task distribution to counter cognitive overload. Therefore, the analysis suggests a framework for assessing whether AI serves as an effective or adequate complement to human interpretation, thereby informing a principled, application-focused approach to AI–human collaboration in political interpreting.

F. Convergence and Divergence in Human and AI Political Interpreting

In line with research from Ameur et al. (2020) and Läubli et al. (2018), this study suggests that both human and AI interpretations demonstrate strong lexical precision when dealing with technical and diplomatic terminology, with broad semantic overlap in conveying central messages and structural stability at the discourse level. These areas of convergence suggest that modern AI systems have achieved the operational efficiency needed to perform general interpretive tasks (e.g., structured and formulaic political debate).

Differences within each of these lexical, pragmatic, cultural, and rhetorical dimensions closely align with those found in earlier studies (Naveen & Trojovský, 2024; Alayba, 2025). Human interpreters perform worse than AI outputs on inferential processing, ideological sensibility, and contextual judgment, with AI outputs often tending toward over-formalization or homogenization of culturally loaded narratives. These contrasts inform the conclusion that AI systems are still insufficient to fulfill the real-time communication and interpretive needs of political discourse, despite the reported fluency and accuracy.

Therefore, this study presents empirical evidence that AI systems have often met the thresholds of cognitive efficiency, while not achieving optimal relevance in interpreting ideological, emotional, and cultural inferences. Moreover, it confirms and extends Gile's effort model by pointing to cognitive load rather than interpretive incompetence as the cause of the observed limitations in human interpreting performance. These findings complement theoretical understanding of the functions of competence and performance to show how each mode of interpretation is governed by structurally different constraints.

In practice, this research responds to recent calls for applied AI literacy in interpretation education, with AI seen as complementing rather than substituting for human interpreters. Interpreters could work in cooperation with AI tools in order to avoid ideological misrepresentation, rhetoric mismatch, and cultural insensitivity in political discourse.

The generalization of the study is limited. Though the limitations discussed in this study coincide with previous studies, their consequences may differ depending on the magnitude of the corpus, AI tools used, and either non-live human interpretation or human processing. This is, therefore, an opportunity for further study using more corpora, real-time AI interpretation, and exploration of multimodality in relation to human interpretation of political discourse.

This study is unique in that it shows that though AI tools have improved in fluency and processing speed, they do not make up for what is lacking in pragmatic, cultural, or ideological knowledge. Moreover, it shows that human limitations are not in knowledge but in effort. Therefore, in conclusion, unlike previous studies, it is evident that AI tools make

communication faster and more consistent, but human effort makes it more contextual and deeper. Therefore, cooperation is not an option but a necessity in the future of interpretation of political discourse.

VI. CONCLUSION

This study contributes to the field of interpretation studies by redefining the relationship between AI and the human interpreter not in terms of rivalry but in terms of difference. Based on the theoretical backgrounds of Relevance Theory and Gile's Effort Model, this study found that the difference between AI and the human interpreter does not lie in efficiency and linguistic competency but in the principles of constructing meaning.

This is particularly relevant because the study has also shown that the process of political interpretation is inherently inferential, ideological, and context-dependent, requiring decision-making beyond the surface level of language production. While AI is capable of linguistic fluency, consistency, and support, it is not privy to the intention of the speaker, its ideological positioning, and the relevance of the context in the process of political communication. This is not because AI is limited in its capacity but because of the inherent nature of the task, which is beyond the probabilistic capacity of language modeling.

The study has also reframed the limitations of the human interpreter in terms of work-related factors, not competence-related ones. Disfluencies and omissions are the result of cognitive saturation in real-time conditions, not interpretive incompetence. Therefore, the human interpreter is capable of prioritizing context relevance, rhetorical intention, and ideological considerations, despite the linguistic form being partially compromised.

This study has also shown the potential for the development of a theoretically informed model of AI-augmented interpretation where AI is seen not as the interpreter but as a supportive cognitive agent. This is because AI transforms the process of interpretation but leaves its essence unchanged, providing the potential for the development of the theoretical basis of AI-augmented interpretation and the potential for the development of the theoretical basis of the collaboration between the human interpreter and AI in the process of political interpretation and other high-stakes decision-making scenarios. This would enable the process of meaning construction in the context of political discourse to be supported by AI but still be grounded in the context intelligence and ethical considerations of the human interpreter.

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REFERENCES

- [1] Al Sharoufi, H., & Al-Fadhli, W. S. (2025). Bridging the gap: Pragmatic and cultural challenges in machine translation. *International Journal of Society, Culture & Language*, 13(2), 29–43. <https://doi.org/10.22034/ijscsl.2025.2062567.4066>
- [2] Al Zahran, A. (2021). Structural challenges in English–Arabic simultaneous interpreting. *Translation & Interpreting*, 13(1), 51–68. <https://doi.org/10.12807/ti.113201.2021.a04>
- [3] Alayba, A. M. (2025). Arabic natural language processing (NLP): A comprehensive review of challenges, techniques, and emerging trends. *Computers*, 14(11), 497. <https://doi.org/10.3390/computers14110497>
- [4] Ameur, M. S. H., Meziane, F., & Guessoum, A. (2020). Arabic machine translation: A survey of the latest trends and challenges. *Computer Science Review*, 38, 100305. <https://doi.org/10.1016/j.cosrev.2020.100305>
- [5] Gile, D. (1985). Le modèle d'efforts en interprétation simultanée. *Meta*, 30(1), 44–48. <https://doi.org/10.7202/002893ar>
- [6] Gile, D. (1995). *Basic concepts and models for interpreter and translator training*. John Benjamins. Retrieved March 30, 2026, from https://books.google.jo/books/about/Basic_Concepts_and_Models_for_Interprete.html?id=YfHEXethAN4C&redir_esc=y
- [7] Gutt, E.-A. (2000). *Translation and relevance: Cognition and context* (2nd ed.). St. Jerome Publishing. <https://doi.org/10.4324/9781315760018>
- [8] Koehn, P. (2020). *Neural machine translation* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/S1351324920000650>
- [9] Läubli, S., Sennrich, R., & Volk, M. (2018). Has machine translation achieved human parity? A case for document-level evaluation. In E. Riloff, D. Chiang, J. Hockenmaier, & J. Tsujii (Eds.), *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing* (pp. 4791–4796). Association for Computational Linguistics. <https://doi.org/10.18653/v1/D18-1512>
- [10] Li, T., & Chmiel, A. (2024). Automatic subtitles increase accuracy and decrease cognitive load in simultaneous interpreting. *Interpreting*, 26(2), 253–281. <https://doi.org/10.1075/intp.00111.li>
- [11] Liu, R.-Y. (2023). Interpreters as spin doctors: The interactional role of interpreters in China's political press conferences. *The International Journal of Press/Politics*, 30(1), 423–444. <https://doi.org/10.1177/19401612231204514>
- [12] Naveen, P., & Trojovský, P. (2024). Overview and challenges of machine translation for contextually appropriate translations. *iScience*, 27(10), 110878. <https://doi.org/10.1016/j.isci.2024.110878>
- [13] Onyshchak, H., Liutko, N., Yarova, A., Povoroznyuk, R., Koiomiiets, I., & Gontsa, I. (2023). Pragmatic competence in political discourse interpreting. *Revista Românească pentru Educație Multidimensională*, 15(3), 376–399. <https://doi.org/10.18662/rrem/15.3/772>
- [14] Sperber, D., & Wilson, D. (1986). *Relevance: Communication and cognition*. Harvard University Press. Retrieved March 30, 2026, from https://monoskop.org/images/e/e6/Sperber_Dan_Wilson_Deirdre_Relevance_Communication_and_Cognition_2nd_edition_1996.pdf

- [15] Vanmassenhove, E., Shterionov, D., & Way, A. (2019). Lost in translation: Loss and decay of linguistic richness in machine translation. In *Proceedings of the 17th Machine Translation Summit (MT Summit 2019)*. European Association for Machine Translation. <https://doi.org/10.48550/arXiv.1906.12068>
- [16] Wodak, R. (2021). Crisis communication and crisis management during COVID-19. *Global Discourse*, 11(3), 329–353. <https://doi.org/10.1332/204378921X16100431230102>



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