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Research Article

Exploring the Emergence of AI-Mediated Pragmatic Norms among Iranian EFL Learners in Virtual English Conversation SpacesShahram Afraz^{1*}, Azam Sodagar²

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ABSTRACT

This study explores the emergence of pragmatic norms among Iranian EFL learners in AI-mediated virtual English conversation spaces. Drawing on sociocultural and interactionist frameworks, the research employed qualitative discourse analysis with 20 intermediate learners engaged in AI-based conversational sessions. The findings indicate that learners developed stable pragmatic patterns including explicit politeness marking, template-driven requests, and regularized turn-taking, shaped by the predictable and feedback-oriented nature of AI partners. Adaptation strategies included rapid uptake of feedback, calibration of directness, and strategic hedging, showing learners' efforts to align with mediated interactional norms. While some AI-mediated practices, like politeness and mitigation, align with human communication, differences were observed in reduced idiomaticity, limited small talk, and formulaic compliments. These results highlight both the educational benefits and limitations of AI for fostering pragmatic competence.

Keywords: AI-mediated communication; Pragmatic competence; Iranian EFL learners



1. Introduction

1.1. Background

The integration of artificial intelligence (AI) in language learning environments has reshaped the way English as a foreign language (EFL) learners communicate. AI conversational agents like virtual companions and chatbots are employed as interaction partners to help learners practice and develop their communicative competence beyond the traditional classroom (Godwin-Jones, 2015). In particular, AI-mediated conversation platforms can simulate real-life situations so that students can try out different pragmatic strategies, receive immediate feedback, and make changes in language use.

Pragmatic competence, or the proper use of language in a given situation, is a crucial component of communicative competence (Taguchi, 2015). Evolution of pragmatic norms in AI-mediated interactions is, therefore, a timely and important area of study, especially in EFL contexts such as Iran, where students are likely to have limited access to authentic English-speaking settings.

1.2. Statement of the Problem

While the role of AI in vocabulary acquisition, grammar instruction, and language proficiency has been widely studied, less attention has been given to its possible impact on pragmatic development, particularly the development of emerging pragmatic norms in AI-mediated contexts. In Iranian EFL contexts, pragmatic competence is often acquired through classroom instruction and practice with scripted input, lacking the variability and complexity of real-life communication (Derakhshan & Arabmofrad, 2018). With the growing use of AI agents in language education, it is necessary to explore how they influence learners' pragmatic behavior and whether AI-mediated norms are consistent with or different from human-mediated norms. Without such awareness, teachers might ignore possible mismatches that could impact learners' communicative competence in real intercultural interactions.

1.3. Significance of the Study

This study is significant for several reasons. First, it adds to the literature on AI-assisted language learning by focusing on pragmatic dimension that has remained unexplored. By investigating how pragmatic norms are constructed through AI-mediated interactions, this study can provide insights into how technological mediation shapes pragmatic development



and enhances communicative competence.

Second, the findings will have practical relevance in EFL settings, such as Iran, where opportunities for authentic English interaction are limited. By comprehending these dynamics, language instructors can design pedagogical interventions that utilize AI-mediated norms or address misalignments.

Third, this study contributes to the overall discussion of how AI affects sociocultural dynamics in learning by making useful recommendations on how to use AI tools to support culturally appropriate communication.

2. Literature Review

2.1.Theoretical Framework

The theoretical foundations of AI-mediated pragmatic learning can be explained within the frameworks of sociocultural theory (Vygotsky, 1978) and interactionist approaches to second language acquisition (SLA). Sociocultural theory focuses on scaffolding and mediated learning, proposing that AI can function as a mediational tool to support learners within their zone of proximal development (ZPD). In the same vein, interactionist perspectives (Long, 1996) emphasize negotiation of meaning and the role of corrective feedback, which can be simulated or provided by AI-powered communication systems. All of these frameworks justify the use of AI in EFL contexts to develop pragmatic competence.

2.2.AI-Mediated Oral Communication

Recent studies indicate that AI-mediated interactions make significant contributions to students' speaking fluency, communication strategies, and willingness to communicate. Fathi et al. (2024) noted that AI-assisted speaking practice not only enhanced students' fluency but also increased their confidence in oral communication. AI-integrated instruction has been reported to reduce shyness and demotivation, while also increasing social–emotional competence (Shi & Shakibaei, 2025).

2.3.AI-IDLE and Informal Language Learning

AI-mediated Informal Digital Learning of English (AI-IDLE) has emerged as a meaningful supplement to formal instruction. In their study “Instructional and Constructivist Approaches to Language Teachers”, Guan et al. (2025) demonstrated that informal engagement with AI-based tools encouraged learners to practice English outside of traditional classrooms,



leading to improved communicative skills. However, their study showed that learners must be provided with at least structured instructions and motivational support to sustain effective informal interactions.

2.4. Technology and Pragmatic Competence

Qi & Chen (2025), in a systematic review, found that technology is vital for developing pragmatic competence. Technological tools including computer-mediated communication (CMC), digital simulations, and immersive environments provide authentic pragmatic development by placing learners in context-rich interaction. This is consistent with the growing recognition that pragmatics must be taught not only explicitly but also through situated, interaction-oriented practices.

2.5. Empirical Studies

A range of empirical studies has examined the application of AI and CMC to pragmatic development. Asynchronous CMC tasks have been shown to improve Iranian EFL learners' pragmatic competence by exposing them to authentic communication situations and opportunities for both implicit and explicit pragmatic instruction (Taguchi, 2015).

Moreover, studies on AI-based platforms indicate that learners can gradually adapt to pragmatic norms included in AI-mediated feedback, reflecting the co-construction of new communicative practices (Guan et al., 2025). These findings show that even though AI cannot fully replace human communication, it contributes to establishing pragmatic norms in virtual learning contexts.

3. Research Questions

This study addresses the following research questions:

Q1. What pragmatic norms emerge when Iranian EFL learners engage in AI-mediated virtual English conversation spaces?

Q2. How do learners adapt their pragmatic strategies in response to AI-mediated interactions?

Q3. In what ways do AI-mediated pragmatic norms align with or differ from norms observed in human-mediated communication?

4. Method

4.1. Design



This research used a qualitative discourse analysis design (Gee, 2014; Paltridge, 2012) to investigate the emergence of AI-mediated pragmatic norms in Iranian EFL learners' virtual English conversation spaces. Discourse analysis is appropriate because it enables a close examination of how meaning is constructed, how social norms are negotiated, and how pragmatic strategies are modified as learners engage with AI agents.

4.2.Participants

The participants were 20 Iranian EFL learners aged 18–25, selected through purposive sampling to achieve diversity in gender, academic background, and prior experience with online communication tools. All were native speakers of Persian with intermediate English-language proficiency. The inclusion criteria included no systematic use of AI conversation tools, access to stable internet and audio-enabled devices, and willingness to participate in audio-recorded sessions and interviews.

4.3.Instruments

Data were collected using these instruments: audio-recorded AI-mediated conversational sessions, field notes on pragmatic behavior and contextual features, and semi-structured interviews in Persian to capture participants' reflections on AI-mediated pragmatic norms. A brief background questionnaire was also employed to collect demographic information and language-learning history.

4.4.Procedure

Data were collected over four weeks. After recruitment and informed consent, participants engaged in three AI-mediated virtual conversation sessions, each lasting 20–30 minutes, designed to elicit pragmatic acts of requesting, refusing, apologizing, and complimenting. The sessions were recorded and transcribed verbatim. Field notes were taken during and after sessions to record any salient observations. Within a week of the final session, all participants took part in a semi-structured interview to share their experiences of AI-mediated communication. All data were anonymized, and confidentiality was maintained.

4.5.Data Analysis

Data were analyzed using thematic analysis following Braun and Clarke (2006) and Gee (2014). Transcripts and recordings were reviewed multiple times for familiarization, and initial codes were generated to identify pragmatic features including directness, politeness markers, and turn-taking strategies. Codes were grouped into main themes that captured



interaction patterns, which were interpreted with reference to sociocultural norms and existing literature. Interview outcomes were triangulated with conversation transcripts to support interpretation. Member checking was used to enhance the credibility of the analysis.

5. Results

5.1. Results of the First Research Question

RQ1: What pragmatic norms emerge when Iranian EFL learners engage in AI-mediated virtual English conversation spaces?

Analysis identified a set of emergent norms characteristic of AI-mediated talk. Learners oriented to explicit politeness marking, template-driven request frames, regularized turn-taking, and metapragmatic repair. A neutral-to-formal register dominated, with reduced idiomaticity and small talk. These patterns were influenced by the features of AI partners such as predictable timing, immediate feedback, and consistent register. They also reflected the interactional efforts learners made to stay mutually intelligible.

Table 1

Overview of Emergent AI-Mediated Pragmatic Norms

Theme	Definition	Interactional Indicator(s)	Pragmatic Implication
Explicit Politeness Marking	Preference for overt markers (e.g., please, thank you) and deferential forms.	Frequent sentence-initial/terminal politeness markers; mitigated directives.	Heightened formality; reduced face-threat in task talk.
Template-driven Requests	Use of stable frames patterned on AI exemplars.	Recurrent stems ("Could you...?", "Would it be possible...?").	Efficiency and clarity; narrower variation of request strategies.
Regularized Turn-taking	Short, bounded turns responsive to AI timing.	Minimal overlaps; preference for single-action turns.	High clarity; lower spontaneity and topical drift.



Metapragmatic Repair	Learner-initiated clarification and self-repair prompted by AI feedback.	Reformulations after prompts like “Please rephrase”.	On-the-spot calibration of directness and tone.
Neutral/Standard Register	Avoidance of idioms, sarcasm, and colloquialisms.	Lexical simplification; circumlocution for culture-bound items.	High intelligibility; limited sociolinguistic richness.

Note. Themes were derived via iterative coding and theme refinement; labels emphasize pragmatic function.

5.2.Results of the Second Research Question

RQ2: How do learners adapt their pragmatic strategies in response to AI-mediated interactions?

Learners adapted through rapid uptake of interactional feedback, calibration of directness, strategic hedging, and increased self-repair. They also refined openings/closings to align with the platform’s preferred routines and monitored code-switching to maintain coherence. These adaptations functioned as pragmatic scaffolds, enabling learners to meet communicative goals while managing face concerns in a mediated setting.

Table 2

Learner Adaptation Strategies in AI-Mediated Interaction

Strategy	Operational Description	Typical Trigger	Outcome for Pragmatics
Feedback Uptake and Self-repair	Immediate reformulation after prompts or misalignment.	AI request for clarification / rephrase.	More target-like politeness and clarity.



Calibration of Directness	Adjustment from blunt to mitigated requests/refusals.	Perceived over-directness or stalled response.	Balanced imposition and efficiency.
Strategic Hedging	Insertion of softeners (perhaps, maybe, I think).	Uncertainty about appropriacy or stance.	Reduced face-threat and speaker accountability.
Routine Openings/Closings	Stabilized greetings, thanks, and leave-takings.	Platform conventions; modeled exemplars.	Smoother transitions; higher interlocutor rapport.
Code-switch Management	Containment of L1 items to metalinguistic moments.	AI misunderstanding of L1 transfer.	Maintained coherence; clearer intent.

Note. Strategies reflect learner responses to platform affordances and constraints; descriptions focus on observable interactional behavior.

5.3.Results of the Third Research Question

RQ3: In what ways do AI-mediated pragmatic norms align with or differ from norms observed in human-mediated communication?

Two broad patterns emerged. First, several norms were consistent with human-mediated interaction, such as notably overt politeness markers, request mitigation, and orderly turn-taking, which can be leveraged as pedagogically useful targets. Second, divergences were evident where AI partners provide limited small talk, display literal interpretations, or model formulaic compliments and refusals. These divergences matter for transfer: learners benefited from explicit debriefing to recognize when AI-appropriate practices may be suboptimal with human interlocutors.

Table 3

Alignment and Divergence Between AI- and Human-Mediated Pragmatic Norms



Area	Alignment with Human Norms	Potential Divergence
Politeness and Mitigation	Use of please/thank you; indirect requests.	Over-politeness in low-imposition contexts.
Turn-taking	Clear sequencing; low overlap; concise turns.	Reduced responsiveness to backchannels and humor.
Refusals and Apologies	Structured moves (reason + apology).	Insufficient cushioning; limited empathy displays.
Compliments and Small talk	Basic positive politeness present.	Formulaicity; minimal personalization and rapport-building.
Register Management	Neutral/standard register supports clarity.	Underuse of idioms and sociolinguistic nuance.

Note. Alignment denotes areas where AI-mediated practice likely transfers; divergence highlights where pedagogic scaffolding is advised.

Altogether, the results indicate that AI-mediated spaces foster stable, intelligible interactional routines while narrowing the range of sociopragmatic expression. To maximize positive transfer, instruction should couple AI-based practice with reflective tasks that unpack when and why to widen or relax the observed norms in human interactions.

6. Discussion

Regarding the first research question (“What pragmatic norms emerge when Iranian EFL learners engage in AI-mediated virtual English conversation spaces?”), the results showed that students extensively used explicit politeness marking, template-driven requests, regularized turn-taking, metapragmatic repair, and a neutral register. These results are consistent with Blake’s (2016) and Sykes’s (2018) assertion that online learners prefer simplified, explicit linguistic forms to ensure clarity. However, compared to human-mediated discourse, our findings show reduced small talk and idiomaticity, a pattern that echoes Godwin-Jones’s (2024) observation that AI partners may promote efficiency while constraining sociopragmatic richness. This suggests that while AI-mediated interaction facilitates pragmatic



clarity, it simultaneously narrows the diversity of learners' pragmatic repertoires.

Concerning the second research question ("How do learners adapt their pragmatic strategies in response to AI-mediated interactions?"), the analysis indicated that learners engaged in rapid uptake of feedback, calibrated directness, used strategic hedging, routinized their openings/closings, and managed code-switching. These results align with Sykes and Reinhardt's (2012) argument that digital tools support reflection and foster real-time pragmatic monitoring. The frequent use of hedging aligns with Bardovi-Harlig and Su (2021), who noted that learners in online contexts experiment with softeners to manage face-threats. Additionally, the control of L1 use in our data reflects González-Lloret's (2021) findings that bilingual learners in CMC regulate code-switching to maintain coherence. Taken together, these patterns show that AI-mediated environments allow pragmatic adaptation but often within the confines of modeled system routines.

Regarding the third research question ("In what ways do AI-mediated pragmatic norms align with or differ from human-mediated norms?"), the results revealed both overlaps and gaps. Alignment was evident in the use of politeness markers, mitigation, and structured refusals, which supports Taguchi's (2015) claim that CMC can reinforce universal pragmatic strategies. At the same time, divergences were noted in the form of limited small talk, formulaic compliments, and restricted humor, echoing Locher and Bolander's (2015) observation that AI-mediated discourse often lacks relational work central to human communication. These divergences pose pedagogical challenges, as learners may mistakenly transfer formulaic AI-derived routines into human interactions. This aligns with Sykes's (2018) argument that reflective pedagogical scaffolding is necessary to help learners recognize and negotiate these pragmatic differences.

7. Conclusions and Implications

The present study explored Iranian EFL learners' pragmatic development in AI-mediated virtual conversation spaces. Findings demonstrated that learners developed stable pragmatic routines, including explicit politeness marking, template-driven requests, and calibrated directness, while also facing limitations in areas like small talk, idiomaticity, and sociolinguistic nuance. These results highlight both the benefits and limitations of AI partners for pragmatic learning.

The implications have two main aspects. Pedagogically, AI-mediated platforms can



serve as valuable supplementary tools for raising learners' pragmatic awareness, particularly through immediate feedback and opportunities for self-repair. However, instructors should support students' understanding of where AI-mediated norms differ from human interaction to avoid overreliance on formulaic or context-inappropriate routines. Integrating AI practice with reflective classroom activities and exposure to authentic human communication is essential to balance clarity with sociopragmatic richness. From a research perspective, the findings call for further investigation of how different AI designs and affordances shape pragmatic learning paths, and how learners transfer AI-mediated practices into real-world contexts.

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