# CONCEPTUAL METAPHORS IN AI COMMUNICATION

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**Abstract:** Artificial Intelligence (AI) has become an essential part of modern communication, influencing education, business, healthcare, and everyday interactions. As AI technologies continue to evolve, conceptual metaphors play an important role in shaping how people understand and communicate with intelligent systems. According to Conceptual Metaphor Theory (CMT), proposed by Lakoff and Johnson, metaphors are not merely stylistic devices but fundamental cognitive mechanisms that structure human thought. This article examines the conceptual metaphors commonly used in AI communication, including AI IS A HUMAN, AI IS A TOOL, and AI IS A PARTNER. The study adopts a qualitative approach based on metaphor analysis of AI-related discourse in academic literature and digital communication. The findings demonstrate that conceptual metaphors significantly influence users' perceptions, expectations, and trust in AI technologies. Understanding these metaphors contributes to more effective AI communication and provides insights for researchers in applied linguistics and cognitive linguistics.

**Keywords:** conceptual metaphor, artificial intelligence, AI communication, cognitive linguistics, discourse analysis.

## Introduction

Artificial Intelligence has rapidly transformed the ways people communicate, access information, and solve problems. AI-powered systems such as virtual assistants, chatbots, and large language models have become common in education, healthcare, finance, and customer services. Although AI systems are based on algorithms and computational models, people frequently describe them using human-centered language. Expressions such as AI understands, ChatGPT thinks, or the computer learns illustrate the widespread use of conceptual metaphors in AI communication.

Conceptual Metaphor Theory (CMT), developed by Lakoff and Johnson (1980), argues that metaphor is not only a linguistic phenomenon but also a cognitive process through which abstract concepts are understood in terms of more concrete experiences [1]. This theory explains why individuals naturally conceptualize AI using familiar human characteristics. Such metaphorical representations make complex technological concepts easier to understand while simultaneously influencing public attitudes toward AI.

Recent developments in cognitive linguistics suggest that metaphors affect not only language but also reasoning, decision-making, and social behavior. Kövecses (2010) emphasizes that conceptual metaphors are deeply embedded in everyday cognition and shape people's interpretation of reality [3]. Similarly, Gibbs (2008) argues that metaphorical thinking reflects fundamental cognitive processes rather than decorative language [4].

In AI communication, conceptual metaphors serve multiple functions. First, they simplify technical concepts for non-specialist audiences. Second, they increase user engagement by making AI systems appear more interactive and relatable. Third, they influence ethical discussions concerning responsibility, intelligence, and trust. For instance, describing AI as a thinking machine may lead users to overestimate its cognitive abilities, while viewing AI as a tool emphasizes human control over technology.

Therefore, investigating conceptual metaphors in AI communication is important not only for linguistic studies but also for human-computer interaction, media discourse, and AI ethics.

The objective of this study is to identify the dominant conceptual metaphors used in AI communication and analyze their communicative functions through the framework of Conceptual Metaphor Theory.

**Methods**

This study employs a qualitative research design grounded in Conceptual Metaphor Theory. The research is based on descriptive and interpretative analysis of AI-related discourse found in academic literature, technology news, and examples of human-AI interaction.

The analytical procedure consists of three stages. First, metaphorical expressions related to AI communication were identified through close reading of scholarly sources. Second, these expressions were categorized according to their conceptual mappings, following Lakoff and Johnson's theoretical framework. Third, the communicative functions of each metaphor were interpreted to explain how metaphorical language shapes users' understanding of AI.

The analysis focuses on three dominant conceptual metaphors:

- **AI IS A HUMAN**
- **AI IS A TOOL**
- **AI IS A PARTNER**

These metaphorical models were selected because they frequently appear in academic discussions and public discourse concerning artificial intelligence. The findings are interpreted from the perspective of cognitive linguistics and discourse analysis to reveal the relationship between metaphorical language and human perception of intelligent technologies.

**Results**

The analysis revealed three dominant conceptual metaphors that frequently occur in AI communication.

AI IS A HUMAN

The most common conceptual metaphor presents AI as a human being. Expressions such as AI understands, AI learns, ChatGPT remembers, and the system decides attribute human cognitive abilities to artificial intelligence. These metaphorical expressions help users understand complex computational processes through familiar human experiences. However, they may also encourage users to overestimate AI's intelligence and autonomy.

AI IS A TOOL

Another dominant metaphor conceptualizes AI as a tool created to assist humans. Common expressions include AI helps people, AI supports learning, and AI improves productivity. This metaphor emphasizes that AI functions under human control and is designed to accomplish specific tasks efficiently. Compared with the previous metaphor, AI IS A TOOL reduces unrealistic expectations regarding AI capabilities.

AI IS A PARTNER

Recent discourse increasingly portrays AI as a collaborative partner rather than merely a machine. Expressions such as AI works with humans, AI collaborates with teachers, and AI assists researchers suggest cooperation between humans and intelligent systems. This metaphor reflects the growing integration of AI into professional and educational environments, where AI is viewed as a supportive collaborator rather than an independent decision-maker. The findings indicate that these conceptual metaphors perform important communicative functions by simplifying technical concepts, facilitating interaction, and shaping public perceptions of AI.

**Discussion**

The findings support Lakoff and Johnson's Conceptual Metaphor Theory, which argues that abstract concepts are understood through more concrete experiences [1]. Artificial intelligence is a highly technical and abstract phenomenon; therefore, speakers naturally rely on metaphorical language to explain its functions.

The metaphor AI IS A HUMAN is particularly influential because it makes communication with AI systems feel more natural and engaging. Nevertheless, this metaphor may create misconceptions by implying that AI possesses emotions, intentions, or consciousness similar to those of humans. Gibbs (2008) notes that conceptual metaphors strongly influence reasoning and interpretation, suggesting that metaphorical descriptions of AI can affect users' expectations and trust [4].

The metaphor AI IS A TOOL highlights functionality and human control. This representation aligns with ethical perspectives emphasizing that AI should remain a technology serving human needs rather

than replacing human judgment. In educational contexts, this metaphor encourages responsible AI use while maintaining the central role of teachers and learners.

The third metaphor, AI IS A PARTNER, reflects recent developments in human-computer interaction. AI systems increasingly support collaborative tasks such as academic writing, language learning, programming, and data analysis. Consequently, AI is often perceived as an assistant or collaborator rather than merely software.

Overall, the results demonstrate that conceptual metaphors significantly influence communication about AI by shaping people's cognitive models, attitudes, and behavioral expectations. These findings confirm previous research in cognitive linguistics indicating that metaphor is fundamental to human understanding rather than merely a stylistic device.

**Conclusion**

Conceptual metaphors are essential for understanding and communicating about artificial intelligence. This study identified three dominant metaphorical models AI IS A HUMAN, AI IS A TOOL, and AI IS A PARTNER that organize people's perceptions of AI technologies. These metaphors simplify complex technical concepts and facilitate communication between humans and intelligent systems.

From the perspective of cognitive linguistics, metaphorical language reflects underlying conceptual structures rather than decorative expressions. As AI continues to develop, new conceptual metaphors are likely to emerge, influencing both public discourse and scientific communication.

Future research may investigate conceptual metaphors across different languages, cultures, or AI applications to better understand how metaphor shapes human interaction with intelligent technologies.

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