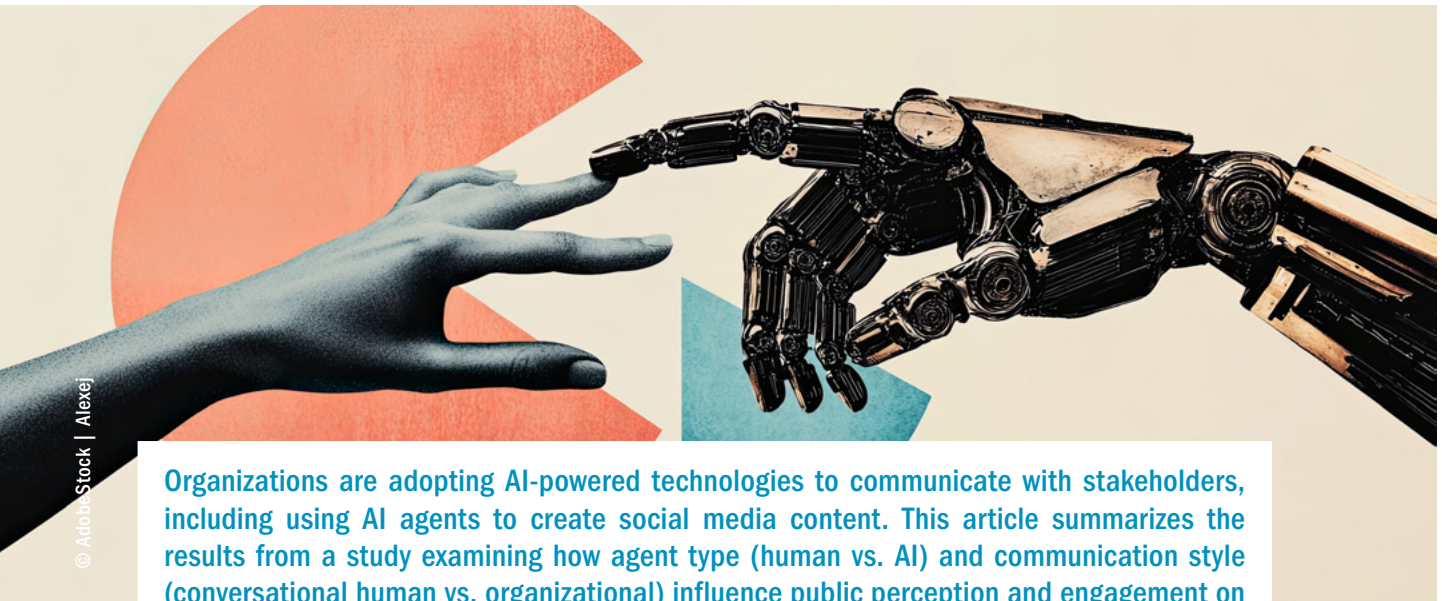


# BUILDING RELATIONSHIP ON SOCIAL MEDIA: AI VS. HUMAN

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Organizations are adopting AI-powered technologies to communicate with stakeholders, including using AI agents to create social media content. This article summarizes the results from a study examining how agent type (human vs. AI) and communication style (conversational human vs. organizational) influence public perception and engagement on social media. The findings suggest that while human agents are more effective in making people feel heard, AI-powered agents perform equally well in fostering other relational outcomes. These insights help corporate communication professionals assess whether AI-powered agents can replace human representatives in social media communication.

## AI AND SOCIAL MEDIA COMMUNICATION

With advancements in AI technologies, organizations are increasingly relying on AI-powered tools to manage their online communications. Chatbots handle customer inquiries, and AI agents generate social media messages. These changes are reshaping corporate communication. A key shift is the use of AI to generate social media updates and engage stakeholders. This change raises an important question for corporate communication professionals and scholars: Can AI-generated social media communication achieve the same outcomes as human-created messages? As organizations integrate AI-powered agents that can employ varied message strategies,

including differences in voice tone, understanding how these messages shape stakeholder perceptions is also crucial.

To explore this, we conducted an experiment in which participants were exposed to an X/Twitter account of a well-known American automobile manufacturer. They were randomly assigned to one of four mock X/Twitter pages, where all tweets were identical except for agent identification and tone of voice. Participants then evaluated their trust, satisfaction, commitment, and control mutuality toward the organization, along with their intention to engage with its social media in the future.

## THE IMPACT OF AI VS. HUMAN AGENTS ON PUBLIC PERCEPTION AND ENGAGEMENT

Organizations were once assumed to have human employees writing all of their social media messages, shaping how publics interpreted and engaged with corporate communication. However, AI now challenges this assumption, sparking debate over whether people can build relationships with organizations through AI-powered agents as effectively as they do with human agents. Some scholars argue that biases against algorithm-based technologies make it harder for publics to build relationships with AI-powered agents (e.g., Dietvorst et al., 2015). Others suggest that people apply the same social rules to non-human agents as they do to humans, treating them similarly in interactions (Nass & Moon, 2000).

Advances in natural language algorithms have made AI-driven communication more sophisticated, which enables AI-powered agents to generate human-like messages and adopt various communication styles. Two different voice tones can be differentiated:

- **The conversational human voice** involves an interactive and natural tone, making organizational messages feel more personal and engaging (Kelleher, 2009). A key feature is its natural, friendly, and inviting tone, which resembles everyday conversation (Park & Lee, 2013). Organizations achieve this by writing in the first-person voice and incorporating emojis.
- **The organizational voice**, in contrast, follows a more formal, impersonal communication style (Oh & Ki, 2019).

Beyond relationship-building, organizations seek to increase public engagement in supportive behaviors, particularly on social media, where direct interaction is seamless. To drive engagement, organizations create social media messages that encourage actions such as liking, sharing, or commenting. Engagement also includes publics' intent to continue interacting with the organization's content over time. Research suggests that social media engagement positively influences individuals' behaviors, including their willingness to purchase a company's products or services (Coursaris et al., 2016).

*People feel they have more influence over an organization when messages come from human agents*

## WHAT WE MEASURED – KEY FACTORS IN PUBLIC PERCEPTION

This study examines how agent type (human vs. AI-powered agents) and voice tone (conversational human voice vs. organizational voice) influence key factors shaping publics' perception of an organization and their engagement intentions on social media. Based on public relations research (Hon & Grunig, 1999), these key factors are defined in the study as follows:

- Trust is the willingness of publics to open up to the organization.
- Satisfaction reflects how pleased publics are with their relationship with the organization.
- Commitment refers to the extent to which publics are willing to invest effort into maintaining the relationship.
- Control mutuality describes the degree to which publics believe they have influence over the organization.

## HOW DO PEOPLE RESPOND TO AI VS. HUMAN AGENTS?

The short answer: while responses are generally similar, people feel they have more influence over an organization when messages come from human agents rather than AI-powered agents.

Our study found no significant differences in trust, satisfaction, commitment, and social media engagement between human and AI-powered agents. In other words, participants' perceptions of the organization remained consistent regardless of whether the messages were generated by a human or an AI. However, control mutuality differed between human and AI agents. Participants believed that they had more influence over the organization's decision-making process when a human, rather than an AI-powered agent, created the messages. This difference was based on the perception of the agent rather than the content itself, as messages within the same communication style were identical regardless of whether a human or AI created them.

## DOES THE AGENT’S TONE OF VOICE MATTER?

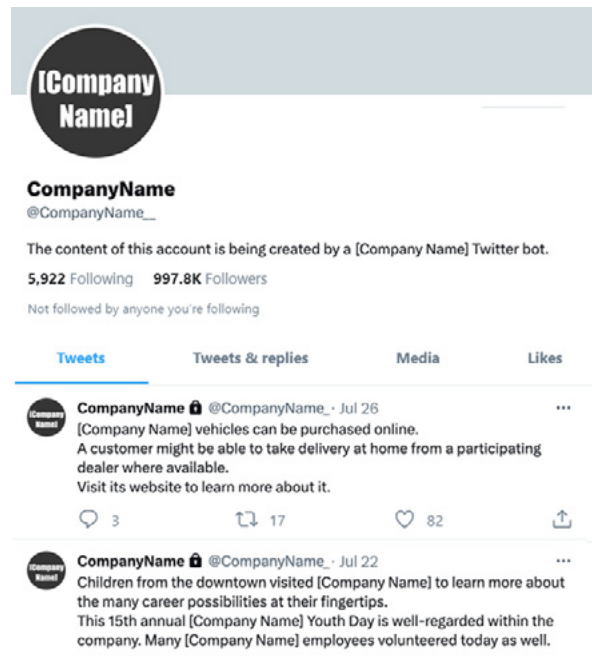
The study reveals that the tone of voice in social media messages has a significant impact on publics’ perceptions of an organization. When organizations use a conversational human voice in their messages, trust, satisfaction, commitment, and control mutuality are all higher than when they use an organizational voice. In other words, relational outcomes are more positive when messages are written in a friendly, casual tone compared to a formal, structured

one. This finding aligns with scientific evidence showing that a conversational tone creates a sense of humanness for online agents (e.g., Lu et al., 2022). People tend to resonate more with messages written in everyday language, as it makes them feel like they are engaging in a conversation with a real human being. Furthermore, a conversational tone fosters greater social media engagement by encouraging and inviting publics to interact with the organization.

### Two of four mock X/Twitter pages for the study design



Human agent & conversational human voice



Bot agent & organizational voice

Source: Oh & Ki, 2024

## INTERACTIONS BETWEEN AGENT TYPE AND VOICE TONE

In real-world settings, social media messages are often generated by combinations of different agents and voice tones. This study also examined how agent type and voice

tone interact and influence public perception. The results showed that messages written in an organizational voice led to higher control mutuality when they were created by a human agent. However, when the messages were written in a conversational human voice, there was no difference in control mutuality between human and AI-powered agents.

While individuals tend to perceive more influence over

the organization when social media messages come from a human agent, this perception of influence remains the same when messages are delivered in a conversational tone, regardless of whether the agent is human or AI-powered. The humanness conveyed through a conversational voice tone may reduce apprehension or biases toward AI agent, as this voice tone increases the resemblance to a human-like conversation.

For the other outcomes (i.e., trust, satisfaction, commitment, and social media engagement), there was no noticeable difference based on the combination of agent type and voice tone.

## PRACTICAL IMPLEMENTATION FOR CORPORATE COMMUNICATION

If your organization aims to build strong relationships with its publics and enhance social media engagement but is unsure whether to adopt AI or human agents to create social media messages, consider this question: What outcomes do we want to achieve through our social media communication? If the goal is to foster publics' trust, satisfaction, or commitment toward the organization, or to increase engagement with social media messages, then the type of agent – human or AI – does not require special consideration. In these cases, both human- and AI-generated messages can be equally effective.

However, if your organization's primary objective is to make publics feel that they have a voice in decision-making and that their input is valued, relying on AI-powered technologies to generate social media messages may not be the best approach. In such cases, it is crucial to ensure that publics are aware that a human employee is responsible for crafting the messages. This becomes especially important when the voice tone of the social media communication is formal, serious, and written in third-person voice.

If your organization chooses to use AI-powered agents for social media messages but still wants to convey that publics' opinions and insights are valued, the AI-generated messages should adopt a conversational, first-person, and friendly tone – one that closely resembles everyday human communication.

*AI can complement but not fully replace human agents in corporate social media communication*

## HUMAN OR AI? INSIGHTS AND FUTURE DIRECTIONS

This article addresses a foundational question for corporate communication practitioners adopting AI technologies in their social media communication: Can organizations use AI agents instead of human agents to build relationships with their publics? The answer appears to be yes, but not always. AI can complement but not fully replace human agents in corporate social media communication. While the impacts of human and AI agents were largely similar overall, individuals were more likely to feel that the organization valued their opinions when a human agent created the social media messages.

The results also suggest that a friendly and engaging tone in social media communication leads to more positive outcomes compared to a formal and impersonal one. A human-like voice appears to blur the lines between human- and AI-generated communication, making AI-generated messages more effective when they adopt a conversational style.

While this study compared human and AI-powered agents, it did not explore scenarios in which human agents generate social media messages with the assistance of AI. Many corporate communication professionals already use

AI tools to aid content creation, though their writing is not entirely AI-generated. More research is needed to determine whether AI-generated messages differ in impact from AI-assisted messages.

With the rapid evolution of technology, AI adoption in corporate communication seems inevitable. Although AI technology enables organizations to automate various tasks, including social media message creation, its impact on publics requires careful consideration. The results of this study suggest that rather than fully replacing human agents, AI may serve as a complement – enhancing efficiency while maintaining the human touch that publics value. To fully leverage these advancements, chief communication officers and corporate communication professionals should continue to assess and understand the implications of AI adoption.

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## MORE INFORMATION

A detailed description of this study is available in Oh & Ki, 2024, as listed above.