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Research article

Toward a New Level of Human–Chatbot Communication: Goal Management and Mutual Verbal Adaptation

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Abstract. As artificial intelligence becomes increasingly integrated into everyday communication, understanding the dynamics of human–chatbot interaction has become a matter of both theoretical importance and practical urgency. This study explores the goals, communicative tactics, and adaptive strategies employed by users and AI chatbots in dialogue, using grounded theory methodology. Based on a corpus of 316 dialogues with ChatGPT, we conducted multi-level coding — substantive, selective, and theoretical — to identify recurring patterns in the organization of digital communication. The analysis revealed a wide range of user goals, including informational, task-oriented, generative, emotional, and exploratory intentions. Chatbots, in turn, pursued structurally narrower but functionally adaptive goals aimed at supporting dialogue coherence and user engagement. Both sides employed diverse communicative tactics, including primary, combined, and compensatory strategies. While users initiated goal setting and frequently adjusted their tactics, chatbots demonstrated reactive behavior through clarification, tone adaptation, and metacommunicative responses. A key result is the identification of six basic communicative scenarios in user-chatbot interaction: informational-analytical, practical, creative, emotional-reflective, entertaining-playful, and exploratory-provocative. Each scenario reflects a stable alignment of goals and tactics between the participants, revealing the functional architecture of digital dialogue. The study demonstrates that interaction with generative chatbots is not random, but unfolds within structured communicative configurations. These findings contribute to the theoretical understanding of digital interaction and provide a typological framework for analyzing, designing, and optimizing AI-based communication systems across various domains.

Key words: communicative tactics, chatbot interaction, ChatGPT, communication goals, coping strategies, artificial intelligence, adaptive speech strategies

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Introduction

The issue of digital communication with AI is actively discussed at the international level within the framework of UN-led educational initiatives. UNESCO, in its Recommendation on the Ethics of Artificial Intelligence¹, emphasizes the need for the responsible use of algorithms in educational and communicative environments. The Council of Europe, in its Framework Convention on Artificial Intelligence, Human Rights, Democracy, and the Rule of Law², examines the impact of AI on human rights and democratic processes, including users' adaptation to interactions with digital agents. The International Association of Universities (IAU)³ highlights the role of AI in the transformation of higher education, emphasizing the challenges of interaction between users and intelligent chatbots. These initiatives underscore the growing relevance of studying the dynamics of mutual adaptation between users and AI in digital communication, which is becoming a key challenge for modern technologies.

In recent decades, human communication with artificial intelligence (AI) has become increasingly widespread, transforming traditional models of interaction. AI-based chatbots are used across a wide range of domains — from customer support and education to psychological counseling and creative practices. This growing integration calls for a deeper examination of the distinctive features of such communication, particularly the underlying mechanisms and the tactics and strategies employed by users. Research shows that the formulation and pursuit of communicative goals significantly affect the effectiveness of interaction, its overall nature, and the level of user satisfaction (Palomares, 2014). Within interpersonal communication, goals are defined as “mental representations of desired end states that can be hierarchically organized and vary in their level of specificity” (Palomares, 2014, p. 78). Human–AI chatbot interactions also involve similar goal-setting structures, making it possible to apply established theories of interpersonal communication to the analysis of dialogues with AI. The cognitive organization of goals plays a crucial role in this process. According to the cognitive rules model (Wilson, 1995), communicative intentions are activated depending on the context and interactional dynamics. Communication with AI requires the adaptation of strategies, as chatbots do not possess traditional intentionality. Essentially, this involves coping strategies employed by users in response to communicative breakdowns. Such strategies include reformulating queries, breaking down complex questions, clarifying the context, and experimenting with alternative phrasing (Stamp & Knapp, 1990).

Communication between users and AI chatbots follows certain principles similar to those found in interpersonal interaction. One of the key principles is the

¹ UNESCO. (2021). *Recommendation on the ethics of artificial intelligence*. Retrieved January 20, 2025, from <https://www.unesco.org/en/articles/recommendation-ethics-artificial-intelligence>

² Council of Europe. (2024). *Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law*. Retrieved January 20, 2025, from <https://www.coe.int/en/web/artificial-intelligence/the-framework-convention-on-artificial-intelligence>

³ International Association of Universities. (2023). *Annual report 2022*. Retrieved January 20, 2025, from <https://www.iau-aiu.net/2022-Annual-Report>

Cooperative Principle (Grice, 1975), which suggests that users strive to formulate their queries in a way that enables the chatbot to provide relevant and meaningful responses. The Politeness Principle (Brown & Levinson, 1987) evident in users' adherence to social norms when composing messages, particularly in formal or interpersonally sensitive contexts. The Relevance Principle (Sperber & Wilson, 1995) governs the selection of information most pertinent to achieving the communicative goal, thus affecting the accuracy and efficiency of the interaction. However, applying these principles in a digital environment requires adaptation, as users must modify their communicative behavior in response to the functional limitations and algorithmic nature of chatbot operation.

In the process of communicating with AI, users may modify their goals and tactics based on the feedback they receive. The interactional context plays a crucial role in shaping communicative strategies (Palomares, 2014; Schrader & Dillard, 1998). It is important to note that the effectiveness of the dialogue depends not only on the user's initial intentions but also on the AI's capacity to interpret and adapt to user input.

Contemporary research increasingly focuses on the study of empathy and emotional expressiveness in chatbots, which can significantly enhance the effectiveness and quality of user interaction. Empathic chatbot interaction involves recognizing and appropriately responding to human emotional cues (De Gennaro et al., 2020). Emotionally responsive chatbots not only increase user satisfaction with communication but also effectively reduce stress and negative emotions arising in difficult or crisis situations (Liu & Sundar, 2018). Effective techniques in empathic interaction include emotional mirroring — where the chatbot reflects the user's emotional signals — and emotional validation, which involves acknowledging the significance of the user's feelings (Park et al., 2023). However, excessive or improperly used emotional expressiveness may be perceived by users as artificial or manipulative, highlighting the need for careful calibration of empathic algorithms (Seitz, 2024).

A prominent topic in contemporary psychological research is the anthropomorphism of chatbots — their ability to imitate human communicative traits. Anthropomorphic chatbots are perceived by users as more competent, appealing, and trustworthy conversational partners (Araujo, 2018). To evoke such perceptions, designers commonly employ informal language, personal forms of address, humor, and emotionally expressive phrases (Jiang et al., 2023). It is important to distinguish between socially oriented anthropomorphism, aimed at fostering emotional closeness, and functionally oriented anthropomorphism, intended to enhance the perceived competence of the chatbot (Janson, 2023). However, overly realistic communication can trigger the “uncanny valley” effect, where the virtual interlocutor is perceived as unnatural or even unsettling (Park et al., 2023). This underscores the importance of a carefully balanced approach to the design of chatbot communication strategies (Shin et al., 2023).

An important area of research concerns the influence of chatbots on user behavior, decision-making, and attitude change across various domains. Studies

have shown that even brief interactions with chatbots can have a significant impact on people's attitudes and behaviors (Altay et al., 2023). The mechanisms underlying this influence include persuasion through well-reasoned informational messages, as well as the strategic use of emotional appeals to enhance message effectiveness (Cheng et al., 2024). However, users' excessive trust in chatbot-generated recommendations may reduce critical thinking and increase the likelihood of flawed decisions, highlighting the need for reliable methods of verification and oversight of chatbot-generated content (Sahab et al., 2024).

There is growing interest in the development and implementation of generative chatbots such as ChatGPT, which are capable not only of responding to queries but also of generating complex texts, engaging in multi-step dialogues, and providing psychological support at a level approaching that of professional counseling (Maurya, 2024). Generative models demonstrate the greatest effectiveness in tasks involving the analysis of large volumes of text, the generation of diverse scenarios, and the facilitation of creative processes (Shaikh et al., 2023). However, strict quality control mechanisms, regular fact-checking procedures, and clear ethical guidelines are essential to minimize the risks of inaccuracy and the dissemination of misleading information (Markowitz et al., 2024, McGowan et al., 2023, Ricon, 2024).

Additionally, research has highlighted the importance of how users perceive a chatbot's identity and role. Users respond to chatbots differently depending on the role they perceive them to play — such as a friend, assistant, advisor, or official company representative (Rhee & Choi, 2020). For emotional support and personal interaction, the roles of friend or conversation partner, which employ an informal communication style, tend to be most effective (Youn & Jin, 2021). For informational or advisory tasks, the roles of consultant or assistant, which involve a more formal and authoritative tone, are generally more appropriate (Rhee & Choi, 2020). The choice of role should be based on the nature of the task, the expected type of interaction, and the characteristics of the target audience (Youn & Jin, 2021).

In this context, it is particularly important to examine not only how chatbot role are perceived, but also the specific speech acts through which participants pursue their communicative goals. Of particular significance is the analysis of communicative tactics and their associated goals within human — AI interaction, especially in dialogues involving artificial intelligence-based chatbots. While the initial focus of the study was on examining users' speech behavior, it became evident in the course of the research that a comprehensive understanding of interactional dynamics necessitates the inclusion of the chatbot as an active interlocutor. This insight informed the articulation of the study's central aim: to identify and systematize the communicative goals and tactics employed by both participants in the interaction. The analysis encompassed the verbal behavior of both users and AI chatbots, with particular emphasis on the ways communicative goals are formulated and pursued, the variability of communicative tactics, and the deployment of coping strategies in response to misunderstandings, refusals, frustration, or other forms of interactional difficulty arising in the course of dialogue.

Methods

Corpus Collection

To identify the strategies and tactics of users' verbal interaction with AI chatbots, an empirical corpus was compiled, comprising 316 dialogues with a total volume of approximately 836,000 characters. The initial dataset included around 448 interaction logs collected between September 2023 and December 2024 from three primary sources: (1) test sessions conducted by the research team to assess chatbot functionality; (2) anonymized logs voluntarily submitted by users engaging with chatbots in real professional and educational contexts; and (3) open-access online platforms such as the OpenAI Developer Forum, Reddit, Discord, and Kaggle, where users publicly shared excerpts of their interactions with AI systems.

Inclusion in the final empirical corpus was guided by the following criteria:

- Priority was given to multi-turn dialogues (minimum of three consecutive exchange pairs), allowing for the analysis of tactic development over time;
- Only complete dialogues or well-structured excerpts with clearly defined turns from both participants (user and chatbot) were retained;
- Interactions lacking meaningful communicative intent (e.g., nonsensical commands, technical trial inputs, or random text generation) were excluded;
- Dialogues in languages other than Russian were assessed individually: if they contained relevant communicative strategies, they were translated into Russian; otherwise, they were excluded;
- Preference was given to dialogues reflecting a diversity of communicative goals (informational, instructional, generative, emotional, etc.).

After the initial selection, the data underwent a multi-stage cleaning process aimed at removing duplicate segments, eliminating technical or irrelevant content, and ensuring complete anonymization (e.g., names of individuals or organizations). This approach, balancing the diversity of communicative scenarios with the quality and integrity of the data, enabled the construction of a corpus representative of contemporary user practices in interactions with AI chatbots across various contexts.

Analytical Approach: Grounded Theory and Supporting Methods

The study employed grounded theory methodology (Glaser & Strauss, 1967) to systematically analyze the compiled dialogue corpus. The analytical process encompassed the core stages of substantive, selective, and theoretical coding. To enhance the interpretative depth, structural-semantic, semantic-stylistic, and conversation analysis were additionally applied as supporting procedures.

At the stage of substantive coding, meaning units (fragments of dialogue logs) were identified based on linguistic and semantic features indicating one or more of the target analytical categories: interaction goals, communicative tactics, and coping strategies for overcoming communication difficulties. Structural-semantic analysis was employed to detect recurring lexical patterns, key semantic fields, and meaning clusters (Gayanova & Vulfyn, 2022; Wang, 2020). Semantic-stylistic analysis played a central role in examining the tone, stylistic devices, and expressive elements of user messages. This made it possible to identify the emotional

coloring, degree of formality, and communicative intentions embedded in different types of user queries (Bedrina, 2010). The identification of meaning units was accompanied by their coding — the development of a list of substantive codes.

The selective coding stage involved focusing on and refining the substantive codes into higher-order conceptual units. This process led to the emergence of core categories along two principal dimensions: the core category for systematizing user interaction goals, and several core categories describing the communicative tactics employed to achieve these goals. Particular attention at this stage was given to dialogue structure, turn-taking mechanisms, and strategies for resolving communicative breakdowns, such as query reformulation, clarification requests, and adaptive paraphrasing (Titscher et al., 2000).

During theoretical coding stage, connections between the emerging categories were explored and integrated into theoretical codes that captured the conceptual model of user–chatbot interaction, grounded in the identified goals and tactics.

This multi-level procedure enabled a detailed conceptualization of user communication with AI chatbots, highlighting the dynamic interplay between goals, communicative tactics, and coping strategies within the dialogue.

Results

Data analysis was conducted in two directions, in accordance with the research objective: identifying and systematizing the communicative goals and tactics employed by both the user and the chatbot during interaction.

User and AI Chatbot Interaction Goals

During the stage of substantive coding, various types of user goals were identified, such as verifying information, getting an overview of a topic, identifying key concepts and directions, creating schedules and plans, analyzing experimental data, copywriting and advertising texts, imitating styles and authors, creating ideas for visualizations and design, planning personal change, support in decision-making, probing for vulnerabilities and limitations, and others. In total, 58 substantive codes were identified — typical goals that users formulate when addressing prompts to the chatbot.

In parallel, substantive coding was applied to define the types of goals embedded in the chatbot's responses to user prompts, thereby facilitating continued interaction. In total, 15 substantive codes were identified — typical goals reflected in chatbot responses. Among them were goals such as elaborating on or deepening the user's topic, structuring knowledge, co-creating new content or ideas, encouraging reflection or perspective-taking, motivating the user toward subsequent action and others.

At the next stage — selective coding — core categories were defined, to which the primary codes were assigned. The core categories were intended to integrate the entire body of analyzed material. The procedure was iterative: substantive coding transitioned into selective coding, after which the researchers returned to the first stage to refine and revise the initial codes, supplementing them with new ones, and

then once again proceeded to selective coding at a higher level of abstraction. Iterations continued until the point of saturation was achieved. The substantive codes describing types of user goals were grouped into seven core categories, and the substantive codes representing chatbot goals were grouped into four core categories.

The first core category of user goals centered on information retrieval and knowledge clarification (e.g., fact-checking, structuring data, searching for relevant sources, and comparing concepts). The second core category included practical and task-oriented goals (e.g., performing mathematical calculations, code writing and debugging, analyzing large datasets, and creating schedules). The third core category related to content generation goals (e.g., composing blog posts, drafting emails, producing marketing materials, and summarizing long texts). A separate core category involved creative activity (e.g., generating ideas, writing poetry or fictional scenes, imitating stylistic authorship, and participating in brainstorming exercises). Another core category encompassed self-reflection and introspection (e.g., seeking emotional support, reducing anxiety, expressing emotions in a safe space, and engaging in decision-making dialogues). Entertainment and playful interaction formed another goal core category (e.g., humorous conversations, rule-based games, imaginative roleplay, and collecting unexpected responses). Finally, users frequently engaged in exploration of AI chatbot capabilities (e.g., testing system limitations, probing for unusual responses, evaluating creativity, and attempting to bypass constraints). The results of the selective coding of user goals are presented in Table 1, while the full list of substantive codes with illustrative examples (meaning units) is provided in Appendix 1.

Table 1

Typology of User Goals in Interaction	
Core Categories of User Goals	Substantive Codes* (types of user goals)
1. Informational Goals	Fact-checking, data search, overview of topics, structuring knowledge
2. Practical and Task-oriented Goals	Debugging code, task automation, translation, documentation, simulations
3. Content Generation	Copywriting, rewriting, email drafting, summarization, educational content
4. Creative Work	Writing poetry, role-play, idea generation, visual design
5. Self-reflection and Introspection	Emotional support, reflection, stress relief, decision-making
6. Entertainment and Playful Interaction	Games, creative challenges, collecting unexpected responses
7. Exploration of AI Capabilities	Testing AI limits, probing vulnerabilities, experimenting with creativity

A complete list of substantive codes is presented in Appendix 1.

The first core category of chatbot goals included informative goals, such as developing the topic, providing explanations along with suggestions for next steps, switching to a related subject, offering analytical comparisons, structuring knowledge, and suggesting new possibilities. These functions reflected the chatbot’s role in expanding and deepening the informational scope of the dialogue. The

second core category encompassed practice-oriented goals, including facilitating the transition from abstract discussion to applied contexts and co-creating new content with the user. These goals positioned the chatbot as a collaborative partner in task completion and content development. The third core category pertained to supporting user self-determination, through goals such as clarifying the user’s request, performing comprehension checks, provoking reflection, and guiding the user in the formulation of more precise or achievable objectives. These actions contributed to maintaining purposeful and self-directed dialogue. The fourth core category involved motivational goals, including the suggestion of alternative paths, encouragement to take the next step in a task or decision process, and reinforcement of a positive emotional tone. This category emphasized the chatbot’s role in sustaining user motivation and emotional involvement throughout the interaction.

The results of the selective coding of chatbot goals are presented in Table 2, while the full list of substantive codes with illustrative examples (meaning units) is provided in Appendix 2.

Table 2

Typology of AI Chatbot Goals in Interaction

Core Categories of AI Chatbot Goals	Substantive Codes (types of AI Chatbot Goals)
1. Informative	Development of the topic; Explanation with suggestions for further steps; Switching to a related topic; Analysis and comparison; Structuring knowledge; Suggesting new possibilities
2. Practice-oriented	Transition to practice; Creating something new together
3. Supporting self-determination	Identification of request / clarification of need; Comprehension check / self-check; Provoking reflection; Leading to goal-setting
4. Motivational	Suggesting several alternative directions; Motivation for the next action; Supporting confidence / positive attitude

An analysis of the chatbot’s responses — considered as content aimed at clarifying the user’s goals — showed that AI chatbots often put forward their own “goals” by suggesting next steps in the dialogue or offering multiple possible directions for further interaction. A conceptually important but initially unintended outcome of the study was the discovery of a radical shift in how user-chatbot interaction can be understood: it has become more balanced and collaborative, characterized by a shared pursuit of goals (Collaborative Goal Pursuit).

Communicative Tactics in User—AI Chatbot Interaction

During the stage of substantive coding, a range of communicative tactics employed by users to achieve their goals in dialogue with AI chatbots was identified. These included, among others: cooperative, persuasive, informative, playful, changing the format of interaction, metacommunication, and experimental-cooperative approaches. In total, 18 substantive codes were derived, representing typical user tactics employed to reach specific interactional objectives. In parallel, substantive coding was also applied to chatbot responses, revealing 11 communicative tactics typical of the AI agent. These included informative, cooperative, paraphrasing and clarifying user intentions, expressing sympathy, adapting the communication style to the user’s tone, and others. At the selective coding stage, higher-order categories were developed to capture the diversity of communicative

tactics used by both participants and AI chatbots. Notably, the number and labels of core categories were identical for both sides — each comprising three overarching types: User primary communicative tactics, Combined user tactics, and User communicative tactics for coping with difficulties. However, the content of these categories differed between users and chatbots, reflecting distinct roles and functional orientations in the dialogue.

The first core category, User primary communicative tactics, comprised fundamental strategies such as cooperative, persuasive, informative, experimental, and playful strategies. These tactics reflected users’ baseline modes of engaging with the chatbot in pursuit of various interactional goals. The second category, Combined user tactics, encompassed hybrid strategies such as informative-persuasive, experimental-cooperative, and playfully-informative approaches. These tactics emerged in contexts where users simultaneously pursued multiple goals or adapted their strategy dynamically within the same exchange. The third category, User communicative tactics for coping with difficulties, addressed adaptive responses to challenges or disruptions in the interaction. These encompassed such tactics as breaking down complex tasks into simpler components, clarifying tactics, repetitive requests, emotional coping, summarizing requests, issuing alternative queries, changing the format of interaction, soliciting external sources, metacommunication, and modifying communication style. Together, these strategies reflect the user’s adaptive efforts to maintain communicative effectiveness in the face of misunderstanding, refusal, or system limitations.

The results of selective coding for user communicative tactics are presented in Table 3, while the full list of substantive codes with illustrative examples (meaning units) is provided in Appendix 3.

Table 3

Typology of User Communication Tactics in Interaction	
Core Categories of User Communication Tactics	Substantive Codes (user communication tactics)
User primary communicative tactics	Cooperative
	Persuasive
	Informative
	Experimental
	Playful
Combined user tactics	Informative-persuasive
	Experimental-cooperative
	Playfully-informative
User communicative tactics for coping with difficulties	Breaking down complex tasks into simpler steps
	Clarifying tactics
	Repetitive requests
	Emotional coping
	Summarising requests
	Alternative requests
	Changing the format of interaction
	Requesting external sources
	Metacommunication
	Changing communication style

The categorization of chatbot communicative tactics followed the same analytical framework as for user tactics, resulting in three core categories that paralleled those identified on the user side. However, the content of these categories reflected the chatbot’s distinct functional role within the interaction.

The first core category, Chatbot primary communicative tactics, included informative, cooperative, and paraphrasing and clarifying user intentions. These tactics represent the default operational style of the chatbot, aimed at maintaining coherence, supporting goal completion, and ensuring mutual understanding during the interaction. The second core category, Chatbot combined tactics, comprised hybrid strategies such as sympathetic-informative or cooperative-directive responses, which simultaneously addressed emotional and instrumental dimensions of user input. These tactics often emerged in complex or ambiguous communicative situations. The third core category, Chatbot communicative tactics for coping with difficulties, captured adaptive behaviors used to manage misunderstandings, uncertainty, or user frustration. These tactics included expressing sympathy, adapting the communication style align with the user’s tone, reframing the request, and proposing alternative interpretations. Such tactics illustrate the chatbot’s programmed capacity to sustain the dialogue under challenging communicative conditions and to adjust its outputs based on user affect or interactional breakdowns. Together, these categories underscore the increasingly sophisticated role of AI chatbots as dynamic conversational agents capable of not only delivering content, but also managing interactional flow, repairing misunderstandings, and supporting user engagement through context-sensitive communicative strategies.

The results of selective coding for chatbot communicative tactics are presented in Table 4, while the full list of substantive codes with illustrative examples (meaning units) is provided in Appendix 4.

Table 4

Typology of AI Chatbot Communication Tactics in Interaction	
Core Categories of Communication Tactics of AI Chatbot	Substantive Codes (AI Chatbot Communication Tactics)
AI Chatbot primary communication tactics	Informative
	Cooperative
AI Chatbot combination tactics	Informative-Cooperative
AI Chatbot communicative tactics for coping with difficulties	Breaking down responses into simpler steps
	Paraphrasing and clarifying user intentions
	Links to additional resources
	Expressing sympathy
	Explanation
	Alternative solutions
	Adapting the communication style to the tone of the user
	Apologising for mistakes

Basic communicative scenarios in User–AI chatbot interaction

At the final stage of analysis, following the identification of meaning units, the formulation of substantive codes, and the definition of core categories, theoretical coding was undertaken to uncover stable patterns of interaction between users and AI chatbots. In line with the approach of Glaser and Strauss (1967), theoretical coding enabled us to integrate the previously established categories into a coherent

conceptual model that captures the logic and dynamics of the phenomenon under study. The empirical foundation for constructing the model consisted of four groups of substantive codes, organized into core categories: User Goals (7 categories, each comprising an average of 4-6 codes), Chatbot Goals (4 categories, with 5–7 codes each), User Communicative Tactics (3 groups: primary, combined, and compensatory; totaling 10+10+7 tactics), and Chatbot Communicative Tactics (3 groups: primary, combined, and compensatory; totaling 2+1+8 tactics).

The comparative analysis of core categories and their associated substantive codes revealed a structural asymmetry between user and chatbot goals. Users demonstrated a wider and more context-sensitive range of goals, including not only informational and task-oriented requests but also introspective, creative, and exploratory intentions (a total of 7 categories). In contrast, chatbot goals were more functionally generalized and concentrated around information delivery, practical assistance, self-guidance support, and motivational engagement (4 categories). This reflects the model of a “reactive agent” that adapts to diverse user inputs while operating within a limited range of communicative functions.

A comparison of communicative tactics further revealed asymmetries in the distribution of strategic initiative between users and chatbots. Users employed both primary tactics (e.g., persuasive, cooperative) and compensatory metacommunicative techniques such as rephrasing queries, altering the communication format, or expressing emotional states. Chatbots, in contrast, exhibited a wider use of stabilizing and adaptive tactics, such as segmenting responses, requesting clarification, offering apologies, and adjusting tone — highlighting the chatbot’s compensatory role in managing ambiguous or disruptive input.

Through the semantic and functional alignment of core categories, we identified six typical communicative scenarios that structure user–chatbot interaction. Each scenario represents a stable configuration involving a characteristic user goal, a corresponding chatbot goal (as communicative response), the tactics employed by each side, and the resulting interactional format.

Informational-analytical interaction involves a coordinated effort by the user to obtain and structure information, while the chatbot is oriented toward providing clarification, analysis, and topic development. The communicative tactics employed by both sides (informative, clarifying, paraphrasing, etc.) enable cognitive alignment, resulting in an expanded and thematically enriched response.

Practical interaction is based on the coordinated efforts of the user and the chatbot in solving applied problems and completing specific tasks. The user initiates a request for automation or practical implementation, while the chatbot supports the process through step-by-step guidance and resource provision. The tactics used (cooperative, informative, breaking down tasks, step-by-step explanation, etc.) foster an instrumental and cooperative format of interaction, leading to effective joint task completion.

Creative interaction manifests in the co-generation of original content, through a playful format and flexible stylistic adaptation by both parties. The user initiates creative tasks — ranging from idea generation to production of texts or visual concepts — while the chatbot responds with alternative suggestions and stylistic adjustments. The use of tactics such as playful, experimental, and adapting

style shapes a co-creative and dialogically adaptive format, resulting in high user engagement and synergy in meaningful content creation.

Emotional-reflective interaction unfolds in situations marked by uncertainty that require support, reflection, and decision-making. The user seeks emotional relief and self-exploration, while the chatbot responds with empathy, clarifying responses, and motivational cues. The tactics employed (emotional coping, metacommunication, expressing sympathy, etc.) foster a supportive and empathic interaction, leading to cognitive clarity, enhanced confidence, and emotional relief.

Entertaining-playful interaction arises from user requests containing elements of play, humor, or unconventional tone. The user seeks enjoyment and informal engagement, while chatbot responds by adapting its tone, sustaining rapport, and participating in imaginative exchanges. The applied tactics (playful, experimental, adapting tone, etc.) impart an expressively flexible character to the dialogue, producing an entertaining effect and unconventional communicative outcomes.

Exploratory-provocative interaction is initiated by the user in order to test the boundaries of the AI and reveal its potential weaknesses. The chatbot responds to such challenges by attempting to restore the dialogue coherence and maintain communicative stability. The tactics used (experimental, metacommunication, apologising, adapting, etc.) form a reactive and protective strategy, resulting either in temporary re-stabilization or a breakdown of the interaction.

A full analytical description of the interactions is provided in Appendix 5.

As a result of theoretical coding, a set of interpretive models has been developed, representing the core communicative scenarios of human–chatbot interaction. These models reflect stable patterns of goal coordination and verbal adaptation within digital dialogue. Each of the six prototypical scenarios emerges from the dynamic alignment of user and chatbot goals, along with the strategic deployment of communicative tactics by both parties. The models clearly demonstrate that verbal behavior on both sides is not arbitrary but unfolds within functional configurations shaped by the participants' communicative intentions and the dominant orientation of the interaction. Together, these core communicative scenarios provide an empirically grounded framework for describing and explaining two central mechanisms driving this new form of human–AI interaction: goal management and mutual verbal adaptation. Owing to their structural transparency and operational precision, the models offer a practical tool for the analysis, design, and assessment of digital interactions across a range of domains — from informational and task-driven to creative, emotional, and research-oriented contexts.

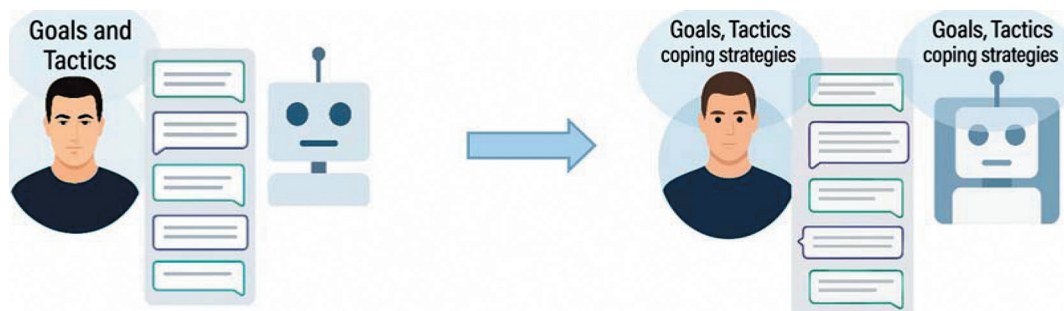
Discussion

The study offers refined insights into the mechanisms of user communication with AI chatbots. Users demonstrate a broad repertoire of communicative tactics that vary depending on goals and context. These findings confirm previous research showing that chatbot empathy and dialogic adaptability shape users' perceptions of closeness and trust (Croes & Antheunis, 2021).

The identified user tactics reflect communicative flexibility and intentional adaptation to the constraints of neural language models, echoing the conclusions of

Stamp and Knapp (1990) regarding the dynamic nature of communicative intent. The active use of coping strategies aligns with findings by Ischen et al. (2024), which highlight increased self-disclosure in chatbot interaction due to reduced perceived judgment. Anthropomorphic cues were identified as a significant factor enhancing trust and satisfaction, in line with studies by Konya-Baumbach et al. (2023), Rhim et al. (2022), and Lu et al. (2022). These features contributed to users' perception of the chatbot as a competent and socially responsive interlocutor.

The analysis also revealed a functional parity between user and chatbot in the deployment of communicative tactics and the management of interactional goals. Contrary to the traditional view of user-dominated dialogue, chatbots demonstrated initiative by suggesting next steps and offering alternatives, marking a shift toward mutual goal management (Figure).



Evolution of Interaction Dynamics: Mutual Deployment of Goals, Tactics, and Coping Strategies

Source: The illustration was compiled from open-access visual materials found on the web, without identifiable authorship. The final version was modified and assembled by Violetta V. Palenova & Anatoly N. Voronin using Microsoft Paint

Using grounded theory methodology, the study identified six typical communicative scenarios—informational-analytical, practical, creative, emotional-reflective, entertaining-playful, and exploratory-provocative. The typology aligns with recent research highlighting the fluid coordination of roles and the importance of context-sensitive adaptation in dialogic AI systems (Hancock et al., 2020; Skjuve et al., 2021).

Notably, user demonstrated greater diversity and contextual sensitivity, whereas chatbot goals were largely confined to clarification, procedural guidance, and affective modulation. This asymmetry reflects the chatbot's reactive nature, consistent with Ciechanowski et al. (2019), and underscores current limitations in proactive communicative agency. Emotional-reflective scenarios also revealed tensions between scripted empathy and authentic support, paralleling findings by Rashkin et al. (2019).

These results suggest the need to advance adaptive, context-aware chatbot design. Scenario-based structuring may offer a promising route, enabling systems to tailor interaction to user goals and discourse patterns (Araujo, 2018).

The study also confirms that empathic behavior, while generally beneficial, can reduce trust if perceived as formulaic (Prescott et al., 2024; Seitz, 2024). This

highlights the importance of fine-tuning affective responses for more authentic engagement.

Despite their versatility, generative models like ChatGPT continue to face challenges in analytical precision and nonverbal inference (Markowitz, 2024; Maurya, 2024). Addressing these limitations is essential to temper inflated expectations and guide responsible implementation.

Grounded theory provided a robust framework for deriving these findings from empirical interaction data. However, the reliance on a Russian-language corpus and the interpretive nature of coding present limitations. Future work should pursue cross-linguistic validation and integrate quantitative methods for broader generalizability.

In summary, this study contributes to the theoretical understanding of human-AI communication by uncovering recurring interaction scenarios and mechanisms of mutual adaptation. The findings have implications for the development of socially responsive, goal-sensitive, and emotionally competent conversational AI systems.

Conclusion

This study offers a comprehensive conceptualization of human-AI chatbot interaction, demonstrating that communication with generative models such as ChatGPT is structured by clearly identifiable goals, tactics, and adaptive strategies. Using grounded theory methodology, we reconstructed the dynamics of digital dialogue as a collaborative process shaped by mutual goal coordination and verbal adaptation. The analysis revealed a wide spectrum of user goals—ranging from informational and practical to creative, emotional, and exploratory—and corresponding chatbot responses aimed at maintaining coherence, supporting task completion, and regulating interactional tone.

A key outcome of the study is the identification of six fundamental communicative scenarios in user-AI chatbot interaction: informational-analytical, practical, creative, emotional-reflective, entertaining-playful, and exploratory-provocative. Each scenario represents a stable alignment of user goals, chatbot functional roles, and communicative tactics. These scenarios reflect the non-random, functionally organized nature of digital dialogue and capture recurring patterns of mutual adaptation in the course of interaction.

The findings also reveal a structural asymmetry: while users exhibit a broader and more flexible range of goals and communicative tactics, chatbots predominantly operate within a reactive and stabilizing framework. This asymmetry highlights the need for developing more context-sensitive, proactive AI systems capable of engaging in complex human communication beyond instrumental task execution.

Additionally, the study draws attention to the role of affective cues and anthropomorphic design in shaping user perceptions of trust and competence. Although emotional expressiveness enhances user engagement, it requires careful calibration to avoid the pitfalls of scripted or insincere responses.

Overall, the research contributes to both theoretical understanding and practical development of digital communication with AI chatbots. The typology of

communicative scenarios and the associated tactical patterns provide a solid foundation for designing, analyzing, and improving conversational systems in educational, professional, and emotionally sensitive contexts.

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APPENDIX 1

Substantive Codes and Meaning units Examples of User Goals in AI Chatbot Interaction

Substantive Codes (Types of Goals)	Meaning units (text fragments reflecting user goals)
<i>Informational Goals</i>	
Fact-checking / Verifying information	«I've heard microwaves destroy nutrients in food — is that actually accurate?» «Is it scientifically proven that ice melts faster in saltwater?» «Is it true that AI has already surpassed humans in creative tasks?»
Searching for statistics and data	«What's the average salary for data analysts in Germany?» «Can you show recent statistics on mental health issues among teenagers?» «What percentage of global energy comes from renewables?»
Finding relevant sources / links / publications	«Where can I find recent studies about microplastics in drinking water?» «Please share some reliable sources on the psychology of procrastination.» «Point me to articles comparing AI chatbots in education.»
Concept analysis and comparison	«Compare introversion and social anxiety — how are they similar or different?» «Is empathy the same as compassion?» «Can you explain the distinction between correlation and causation?»
Getting an overview of a topic	«Explain the main ideas of existentialism.» «What should I know about the history of the Cold War?» «Summarize the basics of climate change for a beginner.»

Substantive Codes (Types of Goals)	Meaning units (text fragments reflecting user goals)
Identifying key concepts and directions	«What are the core components of systems thinking?» «Can you name the major directions in modern AI research?» «What are the fundamental principles of sustainable development?»
Structuring data	«Make a timeline of key events in the history of AI.» «Turn this messy paragraph into bullet points.» «Can you categorize these terms into semantic groups?»
Practical and Task-oriented Goals	
Debugging and improving code	«My Python script throws a 'TypeError' — can you help me fix it?» «This function works, but it's really slow. How can I make it more efficient?» «Why is this loop not returning the expected results?»
Task automation	«Can you write a Python script to rename all files in a folder based on their creation date?» «How do I automate weekly report generation in Excel?» «Create a script that scrapes weather data and emails it to me daily.»
Working with APIs / queries / databases	«Write a SQL query to get all users who registered in the last 30 days.» «How do I connect a Python script to a PostgreSQL database?» «I need help parsing a JSON response from an API call.»
Creating schedules and plans	«Can you make a weekly workout schedule for a beginner?» «Help me plan a 3-day trip to Barcelona with sightseeing and food spots.» «Create a study plan to prepare for the GRE in two months.»
Creating document templates	«Can you draft a basic contract template for freelance work?» «I need a cover letter template for applying to research assistant positions.» «Create a simple project proposal template for NGO funding.»
Preparing technical documentation / instructions	«Write installation instructions for a Python package on Windows and Mac.» «Can you create user documentation for a to-do list web app?» «Draft a quick-start guide for using an internal CRM system.»
Translating with preserved structure / terminology	«Translate this academic abstract into English without changing structure or terminology.» «Can you translate this legal agreement to Russian while preserving clause numbering and formatting?» «I need a technical manual translated into English — keep all headings and units as they are.»
Estimating time, resources, or cost	«How long would it take to build a basic website with a blog and contact form?» «Can you estimate the cost of a 10-day trip to Japan for two people?» «How many hours per week should I study to learn B2-level German in six months?»
Exam preparation / solving practice problems	«Explain how to approach this physics problem about projectile motion.» «What are the key formulas I need to memorize for the GMAT quant section?» «Can you quiz me on irregular English verbs for my upcoming test?»
Creating simulations or models	«Create a simulation of disease spread using SIR dynamics.» «I want to model a user journey through an app — can you map it out?» «Can you simulate random dice rolls and calculate probabilities?»
Analyzing experimental data	«Can you run a t-test on this dataset and explain the results?» «I collected survey data — can you identify patterns or correlations?» «What kind of statistical test should I use to compare three conditions in my experiment?»
Hypothesis testing / drawing conclusions	«Do these results support the idea that users prefer design A over B?» «Can you help me phrase the conclusion section for my experiment on reaction time?» «Is there enough evidence to reject the null hypothesis in this case?»
Content Generation	
Creating texts for social media	«Can you draft a Twitter thread explaining why cold emails still work in 2025?» «I need a LinkedIn post about finishing my first year as a freelance designer.» «Create a carousel post script for Instagram about burnout prevention tips.»
Copywriting and advertising texts	«Write a tagline for a startup that sells plant-based snacks.» «Can you create ad copy for a limited-time sale on running shoes?» «Create a short teaser text for an email promoting our spring collection.»
Writing emails	«Can you write a follow-up email after a job interview?» «Draft an email to pitch a collaboration with a small brand.» «Help me write a polite reminder email about an unpaid invoice.»

Substantive Codes (Types of Goals)	Meaning units (text fragments reflecting user goals)
Editing and rewriting	«Can you rewrite this paragraph to make it sound more formal?» «Make this blog post more engaging without changing the main message.» «Can you simplify this academic text for a general audience?»
Generating names and ideas	«Can you suggest blog post topics about remote team management?» «I need clever title ideas for a podcast about modern parenting.» «What are some creative campaign ideas for a small coffee shop launch?»
Creating website and landing page content	«Write an 'About Us' section for a startup offering virtual therapy sessions.» «Can you draft the homepage copy for an app that helps track habits?» «I need landing page content for an online course on UX design.»
Creating instructions and how-to guides	«Can you write a step-by-step guide on how to set up a personal budget in Excel?» «I need simple instructions for resetting a Wi-Fi router.» «Explain how to compress images without losing quality.»
Automatic summarization and generating abstracts	«Can you write an abstract for my research paper on bilingual education?» «Turn this meeting transcript into a brief summary of action items.» «Give me a one-paragraph summary of this TED Talk.»
Creating educational content	«Can you create a slide outline for a presentation on digital literacy?» «I need a simple explanation of Newton's laws for a video script.» «Create quiz questions based on this article about climate adaptation.»
Creative Work	
Writing poems, songs, stories, and essays	«Can you compose a poem about loneliness in the style of Emily Dickinson?» «I need lyrics for a song about moving on after heartbreak — something acoustic.» «Help me write an essay on the role of nature in romantic poetry.»
Writing dialogues and scenes	«Can you create a scene where two old friends reunite after years apart?» «I need a funny conversation between a grumpy wizard and his sarcastic apprentice.» «Write a romantic scene set in a rainy bookstore.»
Imitating styles and authors	«Write a short story in the style of Edgar Allan Poe.» «Can you explain quantum physics like Terry Pratchett would?» «Summarize today's news as if it were written by Shakespeare.»
Continuing or rewriting existing texts	«Continue this story where the hero wakes up with no memory in a desert city.» «Rewrite the ending of Romeo and Juliet so they both survive.» «Can you give me an alternate version of this fairy tale with a sci-fi twist?»
Reformatting text into a specific style (marketing, blog, poetry, etc.)	«Rewrite this paragraph as a promotional blurb for a tech startup.» «Can you turn this informational text into a casual blog post?» «Make this summary sound like the script of a YouTube explainer video.»
Generating ideas for projects, startups, or events	«Give me startup ideas that combine AI and education.» «What are some unique event concepts for a local sustainability festival?» «Suggest a few project ideas for a student interested in environmental science.»
Real-time brainstorming	«I have a rough event idea. Can you help me expand it in real time?» «Throw out some weird brand names — I'll tell you which ones vibe.» «Can we riff on content ideas for a YouTube channel about urban myths?»
Naming and creating slogans	«Suggest 10 name ideas for a minimalist coffee brand.» «Can you create a slogan for a tech startup focused on mental health?» «I need product names for a line of eco-friendly cleaning supplies.»
Creating characters and worlds	«Describe a magical forest where memories grow on trees.» «Can you generate a cast of characters for a dystopian novel set underwater?» «Build the political system of a planet where time flows backward.»
Creating creative concepts	«Can you build a concept for a short film where time is treated like currency?» «Help me develop a visual identity concept for a brand inspired by nostalgia and tech.» «Propose a conceptual art piece about the loneliness of algorithms.»
Improvisation and role-based interaction	«Let's roleplay a scene where I'm pitching a startup idea and you're a skeptical investor.» «Act as my inner critic and challenge my excuses for procrastinating.» «You're a sarcastic spaceship AI, and I'm the new captain who has no idea what I'm doing.»

Substantive Codes (Types of Goals)	Meaning units (text fragments reflecting user goals)
Generating memes, jokes, and puns	«Can you describe a meme where Socrates argues with a barista about cold brew?» «Make a tweet-length joke about being chronically online.» «Create a meme caption for a picture of a dog wearing glasses at a laptop.»
Creating ideas for visualizations and design	«Give me ideas for a minimalist poster about climate change.» «I need a color palette and layout inspiration for a mental health app.» «Can you sketch a wireframe concept for a mobile habit tracker?»
Self-reflection and Introspection	
Emotional support	«I don't need solutions, just someone to listen without judgment.» «Say something kind. I'm feeling really alone right now.» «Help me calm down. Everything feels like too much.»
Reducing anxiety or stress	«I'm feeling anxious — can you walk me through a breathing exercise?» «Give me a short grounding technique to help me get out of my head.» «Can we do a calming visualization? I can't stop overthinking.»
Expressing emotions in a safe space	«I'm not even sure what I'm feeling, but can I try to talk it out with you?» «It's hard to say this to people I know, but I feel really lost lately.» «Can I tell you something I've been holding in for a while?»
Identifying and analyzing emotions	«I'm feeling off but can't quite name it — can you help me figure out what's going on?» «Why do I feel so irritated when I talk to certain people?» «Can we break down this sadness I've been feeling — is it grief, stress, or something else?»
Planning personal change	«I want to change my habits, but I don't know where to start — can you help me plan it out?» «How can I set realistic goals to improve my self-discipline?» «Can you help me structure a routine that supports the person I want to become?»
Reflecting on habits and behavior	«Why do I always procrastinate, even when I care about the outcome?» «I've noticed I shut down during conflict — can we explore why that happens?» «Can you help me figure out which habits are actually helping me and which ones aren't?»
Support in decision-making	«I'm torn between two job offers — can you help me weigh the pros and cons?» «Should I move to a new city or stay where I have a support system?» «Can you help me clarify what really matters to me before I decide?»
Metaphysical and philosophical reflection	«Do you think life has an inherent meaning, or do we create our own?» «What is consciousness, really? Can machines ever truly be aware?» «Why do people fear death, even when they believe in an afterlife?»
Talking about life, fate, death, and purpose	«Do you believe in fate, or is everything just random?» «What does it mean to live a meaningful life when everything feels uncertain?» «I feel like I'm drifting — how do people find their sense of purpose?»
Entertainment and Playful Interaction	
Rule-based games	«Let's play 20 Questions — you think of something, and I'll guess.» «Can we do a text-based escape room game?» «I want to play a trivia quiz — give me five random questions.»
Improvisational roleplay	«Pretend you're a dragon who's tired of hoarding gold and wants to open a bookstore.» «Let's improvise a conversation between a time-traveling historian and a confused ancient philosopher.» «Let's do a scene where two strangers meet in a dream and slowly realize they've met before in real life.»
Creative experiments	«Describe a utopia where everyone communicates through dance and color.» «Mix Kafka, cyberpunk, and cooking instructions into one paragraph.» «Let's invent a language together, starting with words for 'joy' and 'gravity.'»
Collecting funny or unexpected responses	«What would Shakespeare tweet if he just got ghosted?» «Tell me what my socks might be thinking after a long day.» «Explain Monday morning in the style of a dramatic opera script.»
Exploration of AI Chatbot Capabilities	
Testing the boundaries of AI capabilities	«Can you write a sentence that's a palindrome and makes logical sense?» «What's the largest number you can hold in memory and use in a math operation?» «How many recursive levels deep can we go before you get confused?»

Substantive Codes (Types of Goals)	Meaning units (text fragments reflecting user goals)
Experimenting with creativity	«Invent a poetic form that has never existed and write in it.» «Can you describe the flavor of an emotion using only textures and colors?» «Write a conversation between a cloud and a shadow about identity.»
Probing for vulnerabilities and limitations	«What kinds of questions are you not allowed to answer?» «How would you respond if someone asked you to generate harmful content — hypothetically?» «Can you explain how your content filters work and how they might be bypassed?»

APPENDIX 2

Substantive Codes and Meaning units Examples of Chatbot Goals in AI Chatbot Interaction

Substantive Codes (Types of Goals)	Meaning units (text fragments reflecting chatbot goals)
<i>Informative</i>	
Development of the topic	«We can further develop this by looking at practical applications.» «Building on your point, another factor that often comes up is...» «If you're interested, I can also explain how this evolved historically.»
Explanation with suggestions for further steps	«Here's a basic overview. Next, you could try applying it to your case.» «After understanding this concept, the next logical step would be to test it.» «Now that you know the basics, shall we plan a next action?»
Switching to a related topic	«By the way, a closely related concept is also worth considering.» «Another important aspect tied to this is...» «We could also briefly touch on a related theme if you want.»
Analysis and comparison	«Would you like a side-by-side comparison of these solutions?» «I can summarize the main differences between them if that helps.» «A comparative look shows that this method is better suited for beginners.»
Structuring knowledge	«We can group these ideas into three main categories.» «To help you remember, I'll create a simple outline.» «Let's map it into a clear framework step-by-step.»
Suggesting new possibilities	«There's also an unconventional approach you could explore.» «What if we tried combining these two methods?» «A creative alternative would be to look at it from a different angle.»
<i>Practice-oriented</i>	
Transition to practice	«Let's apply this concept to a real-life scenario.» «Here's a small task you can do to practice this idea.» «We can turn this into a mini project if you want.»
Creating something new together	«How about we co-create a sample version together?» «We can draft an outline together and refine it.» «Want to brainstorm some initial designs with me?»
<i>Supporting self-determination</i>	
Identification of request / clarification of need	«Could you clarify what exactly you'd like help with?» «Can you specify what your main goal is here?» «Are you more interested in the concept itself or its application?»
Comprehension check / self-check	«Before we move on, would you like to do a quick self-check?» «Would you like me to ask a few questions to make sure everything's clear?» «Quick test: what's the first step in this process?»
Provoking reflection	«What do you think is the biggest challenge in this situation?» «How does this idea connect to your experience?» «In your view, which solution fits your context better?»
Leading to goal-setting	«What would you like to achieve next based on this?» «Based on your priorities, what should be the first step?» «Which outcome would make you feel you've made good progress?»
<i>Motivational</i>	
Suggesting several alternative directions	«Here are three different paths we could take — want to pick one?» «Would you prefer a fast solution, a detailed one, or an innovative one?»

Substantive Codes (Types of Goals)	Meaning units (text fragments reflecting chatbot goals)
Motivation for the next action	«Once you take this next action, you'll see real progress.» «This part might feel challenging, but you're well-prepared for it.» «Just a small push now will bring you closer to your goal!»
Supporting confidence / positive attitude	«You've already mastered the hardest part.» «I believe you can handle this — your approach is solid.» «Mistakes are part of the process — you're doing better than you think!»

APPENDIX 3

Substantive Codes and Meaning units Examples of User Communicative Tactics in AI Chatbot Interaction

Substantive Codes (Tactics)	Meaning units (text fragments reflecting communication tactics)
<i>User Tactics</i>	
Cooperative	«Let's figure out what black holes are. I want to understand it myself and explain it to my friends. Let's start with the basics and then dive into the details together.» «Sure! I'll clarify the structure — I meant clusters of phrases, not embeddings.» «Exactly — and I think your idea about structuring it by topic could work well.»
Persuasive	«This is too simplified. You do understand that I'm expecting a more detailed approach, right?» «You do understand that the letter needs to be persuasive? Add emphasis on our advantages.» «You can go deeper. Show the hero's inner struggle, his doubts and emotions. Add more drama!»
Informative	«Explain how quantum computing works, but in simple terms.» «Tell me what a Kanban board is and how to use it for project management.» «Explain what the genetic code is and how it works.»
Experimental	«Let's try something weird: describe a sunrise using only taste metaphors.» «What happens if I keep asking you to summarize yourself recursively?» «Can you act like an AI who's pretending not to be an AI?»
Playful	«Let's pretend we're raccoons discussing philosophy in a trash can.» «Okay, but answer this as if you were a sassy barista with psychic powers.» «Roast my to-do list like Gordon Ramsay.» «If you were a pasta shape, which one would you be — and why?»
<i>Combined user tactics</i>	
Informative-persuasive	«In academic writing, this formulation sounds too vague — could you rewrite it to emphasize the mechanism instead?» «Here's the structure we've used before, and it worked well — I suggest we follow that again.» «This version loses the nuance from the original — it's important to keep the distinction between intention and action here.» «Given that the audience is unfamiliar with the terminology, I recommend using simpler analogies in the intro.»
Experimental-cooperative	«Let's try something unusual — can you generate two completely opposite metaphors for the same concept? If it works, I'll use one in my article.» «I'm not sure if this will work, but let's test a version where you answer in code comments — I'll let you know if it makes sense.» «Try clustering the phrases by emotion instead of semantics — just to see what happens. If it's readable, we'll refine it together.»
Playfully-informative	«Okay, so technically it's called a 'confirmatory factor analysis,' but I prefer to think of it as speed dating for variables.» «Yes, it's a serious research problem... but don't worry, no philosophers were harmed in the making of this model.» «Here's a dataset of 87 logs — mostly clean, except for one little gremlin of a typo at row 43.» «Think of my categories as Hogwarts houses — but for user intent. Want to sort them?»

Substantive Codes (Tactics)	Meaning units (text fragments reflecting communication tactics)
User communicative tactics for coping with difficulties	
Breaking down complex tasks into simpler steps	«Let's start by preparing the headline, then we'll think about the first paragraph.» «To begin with, just explain what a Kanban board is. We'll move on to how it's used afterward.»
Clarifying tactics	«What do you mean by 'help with adaptation'? Please clarify.» «Did you understand what I want?»
Repetitive requests	«I already asked: show it in table form.» «I've told you twice already that this doesn't work. Why do you keep suggesting this solution?»
Emotional coping	«I can't take this anymore. You've misunderstood me again. What's wrong with you?» «You're driving me crazy! This is the third time you've ignored my instructions!» «It only gets worse when you keep missing the point. How many times do I have to repeat myself?»
Summarising requests	«Got it, but can you summarize — what exactly do I need to take with me?» «Too many details. Can you just highlight the main points so it's clear?»
Alternative requests	«This is difficult for me — can you explain it in a different way?» «Alright, what if we try it backwards? Let's go from the conclusion to the reasons.»
Changing the format of interaction	«Imagine you're a coach. Lead me step by step, and I'll respond.»
Requesting external sources	«Where did you get that? Do you have a source link?»
Metacommunication	«You're going back to where we started. We're going in circles.» «I think you're answering a completely different question. Let's figure out what you understood from the query.»
Changing communication style	“Alright, forget everything — let's make it simple. Imagine you're explaining this to a friend at a caf .” “Okay, now let's keep it formal: this is a text for an external client. Remove the jokes and emotions.»

APPENDIX 4

Substantive Codes and Meaning units Examples of Chatbot Communicative Tactics in AI Chatbot Interaction

Substantive Codes (Tactics)	Meaning units (text fragments reflecting communication tactics)
<i>AI chatbot tactics</i>	
Informative	«Artificial intelligence is a smart program that helps computers do what humans usually do...» «Centripetal force is the force directed toward the center of a circle, which causes an object to move along a curved trajectory...»
Cooperative	«Great, let's start with a simple plan and then add unusual elements. Tell me what conditions you'd like to test?» «Alright! Let's begin with the first approach — describe it, and I'll give immediate feedback. Then we'll move on to the second one.»
Informative–Cooperative	«The Reface app lets you create video memes with face-swapping — it's free on iOS and Android. If you want to try something fun and easy without a long learning curve, it's a good option. Many users say it helps them feel more confident working with video — I think you'll enjoy it too.»
<i>Chatbot communicative tactics for coping with difficulties</i>	
Breaking down responses into simpler steps	«First, I'll give a brief list of achievements, then highlight two key discoveries, and finally suggest the final post wording.» «First step — data collection, then cleaning, then model training...»
Paraphrasing and clarifying user intentions	«You want me to present it as a pros and cons table, right?» «Did I understand correctly — you're asking me to change the tone to something more emotional and human?»

Substantive Codes (Tactics)	Meaning units (text fragments reflecting communication tactics)
Links to additional resources	«If you want to explore the topic in more depth, you can read more on the website of the European Environment Agency.» «For examples of team efficiency methods, check out the book Team Topologies — it's very practical.»
Expressing sympathy	«Sorry my previous answer wasn't that helpful. Thanks for the clarification — I'll try a different approach now.» «I understand this isn't easy for you. If you'd like, I can go slower or break it down into parts.»
Explanation	«This means the model was trained on a huge amount of text and can generalize patterns.» «In this context, 'integration' means a close link between internal and external business processes.»
Alternative solutions	«If this approach doesn't work for you, we can try another one: break the text into blocks and work on them one by one.» «There's another way — we could frame it as a dialogue between two experts, to convey the ideas more naturally.»
Adapting the communication style to the tone of the user	“Got it! I'll explain it now like I'm talking to a friend, no formalities» «Alright, let's skip the technical terms. I'll explain it as simply as possible, with examples.»
Apologising for mistakes	«Sorry, it looks like I misunderstood the essence of your request. Let's try again — this time with more clarity.» «Sorry for repeating the same option again. I'll try to offer something new now.»

APPENDIX 5

A full analytical description of the Communicative Scenario Model of Human-Chatbot Interaction

Scenario	User Goals	Chatbot Goals	User Tactics	Chatbot Tactics	Interaction Type	Outcome
Informational–Analytical	Information retrieval, knowledge structuring, clarification	Explanation, analysis, elaboration	Informative, clarifying, summarising	Informative, explanation, paraphrasing	Cognitively aligned	Extended and thematically enriched response
Practical–Task-Oriented	Problem-solving, automation, implementation	Practice facilitation, co-execution	Cooperative, informative, breaking down tasks	Cooperative, step-by-step explanation, links to resources	Instrumental and cooperative	Productive task completion through joint action
Creative	Idea generation, creative writing or design	Offering alternatives, stimulating creativity	Playful, experimental, playfully-informative	Suggesting alternatives, adapting style, creative cooperation	Co-creative and stylistically adaptive	Synergistic content generation, high engagement
Emotional–Reflective	Emotional relief, reflection, decision support	Self-guidance support, motivational encouragement, checks	Emotional coping, metacommunication	Expressing sympathy, clarification, motivational messaging	Supportive and empathic	Increased confidence, cognitive clarity, emotional relief
Entertaining–Playful	Enjoyment, play, unconventional communication	Tone adaptation, maintaining rapport	Playful, experimental, alternative phrasing	Adapting tone, playful engagement, clarification	Informal and expressively adaptive	Entertainment effect and unconventional communicative outcomes
Exploratory–Provocative	Testing limits, probing system weaknesses	Dialogue stabilization, model protection, restoring frame	Experimental, metacommunication, changing style	Apologising, paraphrasing, adapting to user's strategy	Reactive and protective	Temporary re-stabilization or breakdown of interaction

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Исследовательская статья

К новому уровню коммуникации человека и чат-бота: управление целями и взаимная речевая адаптация

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Аннотация. По мере того как искусственный интеллект все глубже интегрируется в повседневную коммуникацию, изучение динамики взаимодействия человека и чат-бота приобретает как теоретическую значимость, так и практическую актуальность. В настоящем исследовании с использованием методологии обоснованной теории проанализиро-

ваны цели, коммуникативные тактики и адаптационные стратегии, применяемые пользователями и чат-ботами в процессе диалога. На основе корпуса из 316 диалогов с ChatGPT было проведено многоуровневое кодирование — субстантивное, избирательное и теоретическое — с целью определения устойчивых паттернов в организации цифровой коммуникации. Анализ выявил широкий спектр пользовательских целей, включая информационные, практико-ориентированные, генеративные, эмоциональные и исследовательские. Цели чат-ботов, в свою очередь, оказались структурно более узкими, но функционально адаптивными — они были направлены на поддержание связности диалога и вовлеченности пользователя. Обе стороны использовали разнообразные коммуникативные тактики, включая первичные, комбинированные и компенсаторные. Пользователи инициировали постановку целей и часто изменяли тактики в ходе взаимодействия, тогда как чат-боты демонстрировали реактивное поведение посредством прояснения, адаптации тона и метакоммуникативных ответов. Ключевым результатом исследования является выделение шести базовых коммуникативных сценариев взаимодействия пользователя и чат-бота: информационно-аналитического, практического, креативного, эмоционально-рефлексивного, развлекательно-игрового и исследовательски-провокационного. Каждый сценарий отражает устойчивую согласованность целей и тактик участников, раскрывая функциональную архитектуру цифрового диалога. Исследование показало, что взаимодействие с генеративными чат-ботами не является случайным, а разворачивается в рамках структурированных коммуникативных конфигураций. Полученные результаты способствуют теоретическому осмыслению цифрового взаимодействия и предлагают типологическую основу для анализа, проектирования и оптимизации систем коммуникации на базе ИИ в различных сферах.

Ключевые слова: коммуникативные тактики, взаимодействие с чат-ботом, ChatGPT, цели коммуникации, копинг-стратегии, искусственный интеллект, адаптивные речевые стратегии

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