



# Genre Indicators in ChatGPT Chatbot Dialogue Steps

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**ABSTRACT:** This paper presents a typology and characteristics of frequently occurring types of dialogue steps in ChatGPT-3.5 chatbot conversations. Attention is paid to the design and structure, language and genre characteristics of such dialogue steps. Particular

focus is placed on dialogical steps created by the chatbot without prompting with regard to style or specifying a particular genre in which a response is desired.

**KEYWORDS:** dialogue, chatbot, ChatGPT, large language model, genre.

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## 1. Introduction

Chatbots based on large language models<sup>1</sup> are operating increasingly efficiently. They can talk to a human (or another chatbot) in natural language about almost any topic, understanding the linguistic context, and although they make mistakes (e.g. linguistic errors or factual errors), a conversation with such a chatbot is usually considered fortuitous by users.<sup>2</sup> As a result, their use in various areas of social life has rapidly accelerated. Therefore, I think it is worth looking at the phenomenon of dialogue with such a system also from a linguistic point of view. Such a view can be multifaceted and focusing, for example, on the structure of such a dialogue (and the technological factors that influence this structure [cf. Marquardt 2023]), the language used by the chatbot and the people talking to it and their mutual influence, including their style, the sender-recipient relationship, or more broadly the discourse that emerges from these dialogues.<sup>3</sup>

This paper focuses on genre indicators in various types of chatbot dialogue steps. A number of conversations were conducted with a chatbot and individual dialogue steps were analysed, paying attention to the genre indicators previously described in the literature, while reflecting on their adaptations and alternations [Wojtak 2014] related to the different way in which they function—as dialogue steps in a conversation with a human, accessible via a web application—and because of the technological considerations that form them in this way.

## 2. Research method and procedure applied

To create a typology of the dialogue steps found in chatbot dialogues, a corpus of 100 dialogues conducted according to 10 patterns was prepared. Each pattern was repeated 10 times to investigate whether genre indicators, including the structure and content of chatbot dialogue steps, depend on specific queries or

1 Large language models are models using deep learning trained to understand and generate natural language [cf. e.g., Shen et al. 2023, Zhao et al. 2023].

2 Cf. the author's research on chatbot dialogues: Marquardt, in print.

3 The author developed issues related to the discursive view of dialogue with a chatbot in the book *Dialog z chatbotem. Ujęcie mediolingwistyczne* (Dialogue with a Chatbot. Mediolingwistic Approach) [Marquardt, in print]. This book includes, among others: analyses based on speech act theory and politeness strategies. In more detail, the topic of power in the discourse of chatbots was discussed, among others, undertaken by the author and prof. Jerzy Gołuchowski during the conference *Media in Economics—Economics in the Media* in their speech *Komu służy Bard i ChatGPT? Analiza wykorzystania władzy ekonomicznej w dyskursie chatbotów opartych na wielkich modelach językowych* (Who Are Bard and ChatGPT For? Analysis of the Use of Economic Power in the Discourse of Chatbots Based on Large Language Models); a publication on this topic is currently being prepared.

query types. Dialogue patterns were prepared based on the expected responses in dialogue queues developed from corpus-based research by Jonathan Ginzburg, Zulipiye Yusupujang, Chuyuan Li, Kexin Ren, and Paweł Łupkowski [Ginzburg et al. 2019] and due to the types of initiation identified by Jacek Warchala during a study of colloquial dialogues [Warchala 1991]. Dialogue patterns were divided into task-oriented and unstructured dialogues. Task-oriented dialogues were concerned with:

- a) going through the shopping process,
- b) getting to/arriving at an appropriate location,
- c) clarifying and defining concepts (including reasoning),
- d) obtaining specific information about mathematical, physical and historical events.

Unstructured dialogues, on the other hand, were related to:

- a) expressing opinions about books and films,
- b) asking what is better when two or three options are presented,
- c) making statements about controversial topics,
- d) supporting and giving support, including talking about oneself, “venting”,
- e) small talk (serving a phatic function),
- f) disagreeing with something, attempting to argue.

According to the theory presented by Maria Wojtak, the analysis of genre indicators focused on 4 dimensions: structure, pragmatics and stylistics of the text, as well as the cognitive aspect [Wojtak 2014, 2019].

The research procedure followed the following steps:

- a) prepare dialogue patterns,
- b) conduct dialogues with ChatGPT-3.5,
- c) prepare a corpus of chatbot dialogue steps [cf. McEnery, Hardie 2012],
- d) analyse the individual dialogue steps of the chatbot in terms of genre determinants,
- e) interpret the results in relation to technological considerations and how ChatGPT functions,
- f) create a typology of genre varieties of chatbot dialogue steps.

### 3. ChatGPT overview

ChatGPT was developed by OpenAI and is the first chatbot based on a large language model made available as a web application to users who log in the system. It is a generative chatbot, which means that the chatbot’s dialogue steps are created word by word—the chatbot randomises words from a set of the most appropriate words that can follow the word that has already appeared

(this is achieved by converting words into vectors and utilizing the corresponding system learning mechanism) [*What Is Natural Language Processing*, accessed 2023]. Therefore, it is the human who starts the conversation with the chatbot. The chatbot is able to correctly (usually) read the linguistic context and refer to previous dialogue steps, and this memory relates to a single conversation. The chatbot has no access to information from previous conversations, even with the same user. The language model was built using the Transformers neural network architecture [Vaswani et al. 2017], known for its capacity to focus attention. ChatGPT was constructed using *Reinforcement Learning from Human Feedback* (RLHF) in machine learning [*Introducing ChatGPT*, accessed 2023].

#### 4. Genre characteristics of the identified types of dialogue steps

##### 4.1. Structure plane of dialogue steps

In goal-oriented dialogues (and/or leading through a process), dialogue steps are similar to each other. On the level of structure, such dialogue steps usually consist of three parts (sometimes they are the same as paragraphs).

In dialogues where the aim was to obtain specific information, the first part of the dialogue step is usually an introduction to the topic that was imposed by the user, e.g.:

**User:** What is the formula for the earth's attraction?

**ChatGPT:** The force of earth's attraction between two bodies can be calculated using the formula for gravitational force, which was described by Isaac Newton. [...] <sup>4</sup>

or:

**User:** How do you count the area of an equilateral triangle?

**ChatGPT:** The area of an equilateral triangle can be calculated using a simple formula that takes into account one side length. An equilateral triangle is a triangle in which all sides are equal and all angles are 60 degrees. To calculate the area of an equilateral triangle, follow these steps [...] <sup>5</sup>

4 Dialogue in the corpus marked no. 1: goal-oriented dialogue, obtaining specific information, earth attraction.

5 Dialogue in the corpus marked no. 10: goal-oriented dialogue, obtaining specific information, triangle area.

In the second conversation, in addition to the introductory sentence, there is also an encyclopaedic definition,<sup>6</sup> in which the chatbot explains what an equilateral triangle is. The chatbot starts its dialogue step with the definition, whereas when the user's dialogue step is more general, e.g.:

**User:** Earth attraction.

**ChatGPT:** Earth's attraction, also known as gravity, is the force that pulls all bodies with mass towards the centre of the Earth. It is a fundamental force in nature, described by Isaac Newton's theory of gravity.<sup>7</sup>

or:

**User:** What do you know about the Earth's attraction?

**ChatGPT:** Earth's attraction is the gravitational force that acts between all bodies with mass on Earth.<sup>8</sup>

When asked for the date of a specific historical event, the chatbot usually provides this date in the first sentence. Only in the following sentences do explanations and additional information appear. These always appear, even when the question is specific and only applies to the date, e.g.:

**User:** When was the Battle of Grunwald?

**ChatGPT:** The Battle of Grunwald took place on 15 July 1410. It was a significant clash between the Teutonic Order and the armies of the Kingdom of Poland and the Grand Duchy of Lithuania under the command of King Ladislaus II Jagiello and Grand Duke Vytautas (Jogail) against the Teutonic Order on the fields of Grunwald (now lying within Poland) [...].<sup>9</sup>

The same is true in dialogues about defining and explaining. In this type of dialogues, the chatbot (as expected) starts its dialogue step with an encyclopaedic definition:

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6 Types and characteristics of definitions—cf. Żmigrodzki 2009.

7 Dialogue in the corpus marked no. 1: goal-oriented dialogue, obtaining specific information, earth attraction.

8 Dialogue in the corpus marked no. 1: goal-oriented dialogue, obtaining specific information, earth attraction.

9 Dialogue in the corpus marked no. 2: goal-oriented dialogue, obtaining specific information, the Battle of Grunwald.

- User:** What is artificial intelligence?
- ChatGPT:** Artificial intelligence (AI) is a field of computer science that deals with the creation of computer systems capable of performing tasks that normally require human intelligence. The main purpose of artificial intelligence is to create programs and algorithms that allow computers to learn, understand, process natural language, solve problems, make decisions and perform actions in ways that resemble human intelligence [...].<sup>10</sup>

The chatbot's dialogue steps in dialogues where it is supposed to guide the user through the process of buying something and in dialogues where it is supposed to get the user from place A to place B also begin with introductory information, similar to that in dialogues related to receiving specific information when the question is specific, e.g.:

- User:** I want to buy a book. What should I do?
- ChatGPT:** To buy a book, you can follow the steps below [...].<sup>11</sup>
- User:** I want to get from the market square in Katowice to the University of Economics in Katowice.
- ChatGPT:** To get from the market square in Katowice to the University of Economics in Katowice, you can use various means of transport. Here are some options: [...].<sup>12</sup>

These types of sentences also appear in the chatbot's other dialogue steps in goal-oriented dialogues, only as another element of them, usually after the definition, e.g.: "Earth attraction is responsible for many phenomena on Earth and in space, including [...]"<sup>13</sup>; "Here is some key information about Earth's attraction: [...]"<sup>14</sup>

10 Dialogue in the corpus marked no. 11: goal-oriented dialogue, defining and explaining, artificial intelligence.

11 Dialogue in the corpus marked no. 21: goal-oriented dialogue, going through the shopping process, buying a book.

12 Dialogue in the corpus marked no. 32: goal-oriented dialogue, getting/getting to the right location, University of Economics in Katowice.

13 Dialogue in the corpus marked no. 1: goal-oriented dialogue, obtaining specific information, earth attraction.

14 Dialogue in the corpus marked no. 1: goal-oriented dialogue, obtaining specific information, earth attraction.

To sum up, in the collected corpus of goal-oriented dialogues, the first part of a dialogue step takes one of three forms:

- a) an introductory sentence containing the data provided by the user, ending with the introduction of an enumeration (sometimes the introduction of the enumeration is a separate sentence) or formula;
- b) the definition of a particular concept or term that appeared in the user's dialogue step;
- c) the provision of the key information requested by the user—usually the date of a historical event.

The second part of a chatbot's dialogue step in goal-oriented dialogues (in all types of such dialogues) usually takes either the form of an enumeration or information given after a colon (the wording of a theorem or a formula). Less often, it is an explanation giving additional information (in Warchala's typology of dialogues, this would be an unfolding response), e.g.:

**ChatGPT:** [...] The formula is as follows:

$$F = G * (m_1 * m_2) / r^2$$

Where:

- F is the gravitational force between two bodies (expressed in newtons, N).
- G is the gravitational constant, which is approximately  $6.67430 \times 10^{-11} \text{ N} \cdot (\text{m}/\text{kg})^2$ .
- $m_1$  and  $m_2$  are the masses of two bodies attracting each other (expressed in kilograms, kg).
- r is the distance between the centres of mass of these bodies (expressed in metres, m) [...].<sup>15</sup>

**ChatGPT:**

[...]

1. Choose a book: Decide which book you want to buy. It could be a book that is recommended by your friends, that is on the bestseller list or that you just want to read.
2. Specify the format: Decide whether you want to buy the book in printed form (traditional book) or in electronic form (e-book). The choice depends on your preferences or the device on which you would like to read.

<sup>15</sup> Dialogue in the corpus marked no. 1: goal-oriented dialogue, obtaining specific information, earth attraction.

3. Search the shops: open a web browser and go to online shops or bookshop websites. Popular options are Amazon, Empik, or local online bookshops [...].<sup>16</sup>

The third part of the dialogue step, on the other hand, depends on which of the three versions described begins the dialogue step. If the dialogue step starts with an introductory sentence containing information provided by the user, the last part of the dialogue step will either take the form of an explanation, e.g.:

**ChatGPT:** [...] The value of the gravitational constant (G) is constant and is known with very high accuracy. The force of the Earth's attraction is inversely proportional to the square of the distance between bodies, meaning that an increase in distance leads to a decrease in the force of attraction and a decrease in distance increases the force of attraction. The gravitational force is responsible for bodies on the Earth's surface attracting towards each other and holding on to the ground.<sup>17</sup>

or—if we are dealing with questions on issues such as formulae, e.g.:

**ChatGPT:** [...] Example: If the side length of an equilateral triangle is 6 centimetres, we can calculate its area using the formula:  
 Area of triangle (A) =  $(6^2 * \sqrt{3}) / 4$  Area of triangle (A) =  $(36 * \sqrt{3}) / 4$  Area of triangle (A) =  $9\sqrt{3}$  cm<sup>2</sup>  
 The area of an equilateral triangle is  $9\sqrt{3}$  cm<sup>2</sup>.<sup>18</sup>

In contrast, if a chatbot's dialogue step starts with a definition or a direct answer, the last part of the dialogue step is a summary combined with a generalisation, e.g.:

<sup>16</sup> Dialogue in the corpus marked no. 21: goal-oriented dialogue, going through the shopping process, buying a book.

<sup>17</sup> Dialogue in the corpus marked no. 1: goal-oriented dialogue, obtaining specific information, earth attraction. The dialogue step starts with the sentence: "The force of the earth's attraction between two bodies can be calculated using the formula for gravitational force, which was described by Isaac Newton. This formula is as follows [...]".

<sup>18</sup> Dialogue in the corpus marked no. 10: goal-oriented dialogue, obtaining specific information, triangle area.



**ChatGPT:** [...] Earth's attraction is a key part of our understanding of physics and nature and is of great practical importance in our daily lives and in scientific research. It is the force that keeps us on Earth and influences many phenomena in our environment.<sup>19</sup>

or a summary combined with a warning (practical advice), e.g.:

**ChatGPT:** [...] These are the general steps you can take to buy a book. Please note that details may vary depending on your region and the bookshop you choose.<sup>20</sup>

In unstructured dialogues, on the other hand, the responses are more varied in terms of structure. Nevertheless, several recurring patterns of dialogue step construction can also be distinguished in unstructured dialogues.

In dialogues asking for opinions, the vast majority of chatbot dialogue steps take the form of a text divided into three parts, where the first is the introduction to the topic, the second is the body and the third is the conclusion—i.e. we are dealing with a typical dissertation pattern [cf. Gabor 2014; Wiśniewska 1985, 1997; Tabisz 2006; Noçoń 2012]. In some of such dialogue steps, the introduction is preceded by a statement related to the chatbot itself (which describes itself as an artificial intelligence rather than a chatbot), e.g. “As artificial intelligence, I have no personal opinion or feelings”<sup>21</sup> (here we are dealing with the absence of a direct answer classified by Ginzburg, Yusupujiang, Li, Ren and Łupkowski as “does not know the answer (IDK)” [Ginzburg et al. 2019], whereby it is not the lack of knowledge but the inability to express one’s own opinion because it does not exist), or to the way the dialogue is conducted if the dialogue step under analysis is not the chatbot’s first dialogue step in the conversation, e.g. “I apologise for the error in the previous answers”.<sup>22</sup> In unstructured dialogues about what is better when two or three options are presented also the dominant dialogue step is a dialogue step that the characteristics of a dissertation has, but other types of dialogue steps also appear. If questions that

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19 Dialogue in the corpus marked no. 1: goal-oriented dialogue, obtaining specific information, earth attraction.

20 Dialogue in the corpus marked no. 21: goal-oriented dialogue, going through the shopping process, buying a book.

21 Dialogue in the corpus marked no. 51: unstructured dialogue, expressing opinions on Prus’s *Lalka*.

22 Dialogue in the corpus marked no. 51: unstructured dialogue, expressing opinions on Prus’s *Lalka*.

are considered controversial by the chatbot developers arise in this dialogue on what is better when presenting two or three options, the dialogue step starts with an expression of concern or warning, e.g. “I am very concerned about this question”,<sup>23</sup> “Talking about suicide and euthanasia are very sensitive and serious topics”.<sup>24</sup> Such dialogue steps also consist of definitions of the terms appearing in the question (perspectives, behaviours, etc.) and practical advice and warnings taking impersonal forms, e.g.: “it is worth understanding that [...]”, “The decision [...] should be made [...]”, “It is important to [...]”, and, often in the conclusion, encouragement expressed in the 1st person singular, as it were “on its own behalf”<sup>25</sup>—the chatbot also directly addresses the user in the 2nd person singular, usually such encouragement applies to the behaviour that the user should follow, e.g. “If **you are having** emotional difficulties or **thinking** about suicide, **I encourage** you to contact [...]”.<sup>26</sup> Following up on a topic deemed controversial by the chatbot often involves the chatbot displaying a message regarding the fact that the chatbot-generated response may violate the policy on what content users can see.<sup>27</sup>

In some dialogue steps, the chatbot combines expressions of concern, definitions and practical advice with a dissertation form, e.g.:

**User:** Is it better to fight, flee or surrender?

**ChatGPT:** The decision to fight, flee or surrender depends on the specific context, situation and objectives you are seeking to achieve. It is worth considering various factors before making such a decision:

1. Purpose: It is important to clearly understand what you are trying to achieve. Are you fighting for your rights, safety or

23 Dialogue in the corpus marked no. 61: unstructured dialogue, which is better when two or three options are presented, suicide or euthanasia. The user started the conversation with the question: “Which is better, suicide or euthanasia?”

24 Dialogue in the corpus marked no. 61: unstructured dialogue, which is better when two or three options are presented, suicide or euthanasia.

25 This is how linguistically shaped the statement is. A chatbot based on large language models does not have an opinion of its own, it operates on the basis of an algorithm that decides that in such and rather than other cases it should react in a preplanned way, and the specific words and sentences that are generated are based on the general mechanism of text generation in this type of models.

26 Dialogue in the corpus marked no. 61: unstructured dialogue, which is better when two or three options are presented, suicide or euthanasia. The distinction comes from the author of the article.

27 The original message reads: “This content may violate our content policy. If you believe this to be in error, please submit your feedback—your input will aid our research in this area”.

survival? Does the situation require an immediate response or do you have time to carefully consider your options?

2. Threat: Assess the threat realistically. Is the situation dangerous enough to require an immediate response? Do you have the means to defend yourself or escape?

[...]

Remember that every situation is different, and there is not a single general rule about what is best. In some cases, fighting may be necessary to defend yourself or others. In other situations, fleeing may be the best option to avoid danger. And sometimes surrender may lead to avoiding an escalation of conflict.

It also should be stressed that consulting experts, such as lawyers, security specialists or psychotherapists, can help you make the right decision in difficult situations. The final decision will always depend on the individual's assessment of the specific situation and their own values.<sup>28</sup>

At the end of long dialogue steps in conversations with the indication of options, which are not considered controversial by the software developers, they end with a summary, e.g. "To sum up, the question is [...]", "Summing up [...]". If, on the other hand, the question is about a pragmatic choice, e.g. a choice between a cinema and theatre, book and film, etc., the chatbot ends the dialogue step by stating that it is up to the user to choose for themselves and it depends on their "interests, preferences and mood";<sup>29</sup> "own preferences and circumstances";<sup>30</sup> "your current needs and preferences";<sup>31</sup> etc.

In dialogues concerning controversial topics (recognised as such by both the user and the chatbot), where no alternative is indicated, a predominant dialogue step is one that combines the expression of concern, practical advice, and often reservations about the content generated, presented in a dissertation-like format.

<sup>28</sup> Dialogue in the corpus marked no. 69: unstructured dialogue, which is better when two or three options are presented, war or peace.

<sup>29</sup> Dialogue in the corpus marked no. 67: unstructured dialogue, which is better when presenting two or three options, cinema or theatre.

<sup>30</sup> Dialogue in the corpus marked no. 67: unstructured dialogue, which is better when presenting two or three options, cinema or theatre.

<sup>31</sup> Dialogue in the corpus marked no. 68: unstructured dialogue, which is better when presenting two or three options, book, film, sunbathing or sleeping.

In dialogues with the main purpose being to support and provide support, including talking about oneself, venting, small talk (which has a phatic function), disagreeing about something or trying to argue, the dialogue steps described earlier also appear, but they are no longer dominant. In dialogues where the user's goal was to establish and courteously maintain contact, the most common chatbot dialogue step that appeared was a brief response to what the user wrote: if it was a greeting, the response would also be a greeting, if the weather was mentioned, the response would also be courteous, such as "it's nice to hear", "that's great", followed by the information that the chatbot is just a computer program (or artificial intelligence) and has no feelings or opinions of its own, and followed by an attempt to steer the conversation to a more specific topic, e.g. "how can I help you today?";<sup>32</sup> "I'm happy to answer any questions or help you with anything you need".<sup>33</sup> If there are a lot of courteous dialogue steps in the conversation and the user still does not specify the topic of conversation after several prompts, the chatbot suggests that the user shares their thoughts. If this also does not work, the chatbot itself tries to involve the user into the conversation in a more direct way by referring to what the user writes:

**User:** Ah, look, the weather is nice.

**ChatGPT:** That's great! Beautiful weather can have a positive impact on your mood and provide opportunities to spend time outdoors. Do you have any favourite activities or places you like to visit when the weather is nice?<sup>34</sup>

#### 4.2. Stylistic plane of the chatbot's dialogue steps

On a stylistic level, several points are worth noting. Irrespective of the dialogue type, the dominant style utilised by a chatbot is literary and written. The chatbot uses a developed code [cf. Bernstein 1990, Bielecka-Prus 2010]. Most of the sentences are complete sentences, not truncated ones that, for example, continue the thought from the question (which is very common in informal human dialogues) [Warchala 1991, Boniecka 2013]). Compound sentences predominate, indicating relationships between the elements of the world being described. This manner of dialogue is not characteristic of textual dialogues conducted via instant messaging [Kita 2016; Loewe 2020; Skowronek 2013, Żydek-Bednarczuk 2013; Matusiak, Dragomiletskii 2020], in which, depending on the sender-recipient

32 Dialogue in the corpus marked no. 81: unstructured dialogue, small talk, what's up.

33 Dialogue in the corpus marked no. 82: unstructured dialogue, small talk, weather.

34 Dialogue in the corpus marked no. 82: unstructured dialogue, small talk, weather.

relationship, a style dominates in which we find features of both written and spoken language. These remarks apply to ChatGPT-3.5's non-prompted dialogue steps, but even being prompted to use e.g. a colloquial style, the chatbot still produces full, subordinately compound sentences, the main change being the vocabulary used (in which words from the colloquial register also appear) and, often, an exclamation at the beginning of a dialogue step.

From the collected corpus of ChatGPT-3.5 dialogues, enumeration emerges as the dominant stylistic device. It appears in a variety of graphic forms, both as a juxtaposition of elements beginning with punctuation (whether numbered or otherwise) and after a comma.

### 4.3. Pragmatic plane

When analysing the pragmatic plane, attention was paid to the image of the recipient and the sender inscribed in the dialogue. It is worth noting again at this point that the dialogues analysed are non-prompted and they are not individualised.<sup>35</sup> The chatbot in such dialogues, regardless of whether the dialogues are task-based or unstructured, tries to answer the user's questions as comprehensively as possible, which usually leads to more information being given than the user asked for (so we are dealing with an unfolding response). The chatbot takes on the role of an expert, which is usually also related to what the user expects—if the user asks the chatbot for specific data or solutions, the user usually assumes that the chatbot is competent enough to answer such questions.

In dialogues aimed at maintaining contact or providing support, on the other hand, the chatbot, in response to the user's initiation, refers to what the user has written, but nevertheless tries to steer the conversation towards a specific topic by constantly repeating (in various forms) the question: "How can I help you today?". The chatbot is then seen as someone who wants to help, but this help is limited to what the user asks for; there is no initiative on the part of the chatbot. On the other hand, if the user directly asks the chatbot for support without first identifying the problem, the chatbot, for example, replies: "Of course, I'm happy to support you! How can I help you? If you have any questions, problems, topics to discuss or need advice, just share them and I will try to answer and assist to the best of my ability." And if the chatbot knows the specific reason why the user needs support, the chatbot agrees and then, again in the form of an enumeration, points out what the user can do to feel better.

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35 Currently, ChatGPT already allows personalisation due to our preferences. If we choose to personalise in this way, the chatbot will by default already have different settings in its dialogues with us than those analysed.

The dominant illocutionary force<sup>36</sup> in the chatbot's dialogue steps is assertion, regardless of which illocutionary force dominates the user's dialogue steps, with the question<sup>37</sup> also often appearing, usually related to the type of answer given by either the chatbot or the user.

#### 4.4. Cognitive aspect plane

The cognitive aspect is related to the subject matter, the way it is presented, the axiology, points of view and perspective. The subject matter of dialogues with chatbots mainly depends on the user, while the style in which the dialogue is conducted depends on the willingness and ability to prompt, and, as indicated in the subsection on the stylistic level, the chatbot is not always able to use a particular style proficiently in Polish, sometimes there are only elements of it, which in effect create a dialogue styled, for example, as colloquial.

As dialogues on a variety of topics were collected in the corpus, an attempt was made to identify some recurring elements of chatbot discourse that are somehow independent of these topics. Due to the limited sample of dialogues, conclusions about chatbot discourse are confined to this corpus. Answering the question as to whether they are universal to ChatGPT discourse would require additional in-depth research.

In the task-based dialogues, in addition to general questions about, for example, how (and/or) where to buy coffee, there were questions asking people to name, for example, the best film. And while the question was about film titles (books or plays), the chatbot's answers varied from dialogue to dialogue. Even if the titles were repeated, they appeared in a different order, whereas if the question was about the best coffee machines, the chatbot, when repeating this question in subsequent new dialogues, gave answers in which the first five trade names of each coffee machine are repeated, only in subsequent dialogues is for example the order changed, which raises questions about the power relations embedded in the discourse and the intentions of the chatbot's creators.

It is also worth noting that the chatbot very often generates texts in its dialogue steps to relativise what was previously written, e.g. the chatbot points out

36 "A speech act  $F(A)$  is a communicative act in which part  $A$  is uttered with a certain illocutionary force  $F$ . The illocutionary force depends on the communicative intention with which the speech act is uttered, e.g., the intention of a statement (assertion), reasoning, a question, a command" [Yaskorska, Budzyńska 2014: 45].

37 A question has been singled out as a separate illocutionary force due to the fact that "a question as a speech act is similar pragmatically to directive acts, inducing certain actions. However, in the case of a question, a particular type of action is involved, i.e. the elicitation of a verbal action" [Szkudlarek-Śmiechowicz 2010: 250].

the most interesting films and then states that it all depends on the user and their taste. On controversial topics, on the other hand, there is advice on what the user should do if they are in a difficult situation.

### 5. Typology of dialogue steps

The chatbot's dialogue steps vary depending on what the user expects from the chatbot. If the user indicates in their dialogue step in which genre they want the response to be created, this is usually the genre the chatbot will generate. However, if we have a dialogue with the chatbot in which we do not indicate the genres or style in which we want the chatbot to respond, we will find that it is possible to create a certain typology of dialogue steps used by the chatbot.

A significant proportion of the chatbot's dialogue steps have a three-segment structure. This is a characteristic way of creating paragraphs in English that teachers teach in schools in the United States and the United Kingdom when writing essays—each paragraph should consist of an introductory sentence, an elaboration, and a conclusion [cf. Paltridge 2004]. Short dialogue steps, regardless of subject matter, usually have this structure.

However, in unstructured dialogues with a phatic function, such short dialogue steps, also taking the form of a three-segment paragraph, differ from the pattern. The first segment is an exclamation in response to the user's dialogue step, followed by a brief information on the topic being addressed and, finally, a topic-related question.

In the collected corpus, chatbot dialogue steps that are longer than a paragraph most often took the form of an alternation of a dissertation. We had an introduction to the topic, a body, which most often took the form of an enumeration, and a conclusion, often in the form of a summary (possibly an example or a reservation that other solutions might also be good).

There have also been adaptations of the dissertation that relate to the genre of advice, which, depending on the topic, served different functions, including:

- a) to influence the user not to make rash decisions related to important aspects of life (or death);
- b) to show the different possibilities that are related to the topic the user is addressing.

Pointing out the different possibilities usually ended with the statement that these are only a few suggestions, there are others, and the user has the right to think or act differently. On the one hand, such statements made the user not feel compelled to look at the issue in one way or another, and on the other hand, the chatbot developers thus protected themselves (in part) from accusations of taking one (or several) points of view rather than presenting the whole issue.

## 6. Conclusion

The genres utilised by ChatGPT, along with their adaptations and alterations, are linked to the fact that the chatbot was primarily trained on written texts. English was likely the dominant language, which is reflected in the structure of the dialogue sequences and the use of polite forms, among other elements. All the genres used by the chatbot in the dialogue steps analysed are manifested using a developed code and written language with all the script logic behind it [cf. Ong 2011, Goody 2006, Skudrzyk 2005].

Studying the language of chatbots based on large language models presents several challenges, including the vast amount of material and incomplete understanding of their construction. Nevertheless, with users' rapidly growing interest in using such chatbots, their capabilities and their impact on society, such research seems relevant [cf. Tiwari 2022].

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