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**MULTIMODAL MANIFESTATION OF ARTIFICIAL INTELLIGENCE IN
THE 21ST CENTURY ENGLISH CINEMATIC DISCOURSE
(A CASE OF STUDY “HER” AND “ZOE”)**

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**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ КИЇВСЬКИЙ
НАЦІОНАЛЬНИЙ ЛІНГВІСТИЧНИЙ УНІВЕРСИТЕТ**

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ІНТЕЛЕКТУ В АНГЛОМОВНОМУ КІНОДИСКУРСІ ХХІ СТОЛІТТЯ»
(НА МАТЕРІАЛІ КІНОФІЛЬМІВ «ВОНА» ТА «ЗОЇ»)**

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INTRODUCTION

Indisputable development of the film industry in all the richness and diversity of genres, types, and technologies has led to the broad interest of researchers in studying the phenomenon of cinema as a type of discourse.

Generally, in present-day linguistics, studies based on new communicative theories and realities are becoming increasingly common. This is due to the development of science and technology, and as a consequence of changes in culture and art that have led to new approaches and methods of research. Film texts and film discourse, integrating verbal and non-verbal components, are of special interest to linguists today. In linguistics, complex films constitute a special kind of text and/or discourse. The research of film discourse requires a special interdisciplinary methodology of analysis.

The most complex entity in the world is human. The desire to know the complexity of humans - has always existed and manifested itself in different forms. Now it has become even more relevant. The development of computer technology has led to the emergence of many works related to attempts to learn to recognize and synthesize human speech, create systems of technical vision that can recognize people's faces no worse, and better than human eyes, teach cars to drive independently without a human driver, etc. Systems exhibiting human behavior are called artificial intelligence systems. The study of these systems is an independent scientific field, uniting many scientific disciplines.

The **topicality** of the study is since it focuses on the study of the interdisciplinary phenomenon of artificial intelligence within the framework of film stylistics and multimodal studies. Scientific progress and the development of artificial intelligence are increasingly pushing scientists towards not-too-bright forecasts about our future. In particular, Stephen Hawking believes that computers will become smarter than people in the next 100 years. The topic of artificial intelligence is not alien to science fiction writers and filmmakers. An incredible number of films have already been shot on this topic, in most cases - artificial

intelligence begins to fully think, develop and, as a result, decides to destroy or enslave humanity.

The works of the following scholars form the theoretical and methodological basis for our research: 1) as to film stylistics these are N. Carroll, N. Tredell, D. Kellner, T. O'Regan, R. Allen, J. Hochberg, and V. Brooks; 2) as to multimodal perspective these are J. Bateman and K.-H. Schmidt. The paper also applies the concepts elaborated in Yu. M. Lotman, Yu. G. Tsivyan, Yu. N. Tinyanov and S. M. Eisenstein's theories. The scholars who studied the notion of artificial intelligence are Stuart J. Russell, P. Norvig, A. Bundy, R. Burstall, and Nils J. Nilsson.

This brings us to the topic, purpose, and objectives of our research.

The object of the study is artificial intelligence in film discourse.

The subject of our study is the multimodal forms of artificial intelligence in the films "Her" and "Zoe".

The purpose of the study is to determine multimodal stylistic means involved in creating artificial intelligence in the analyzed film discourse ("Her" and "Zoe" films). To achieve this purpose of the study the following tasks were set:

- To define the basic concepts: film stylistics, film discourse, film text multimodality;
- To analyze how multimodality is represented in films;
- Analyze multimodal forms of artificial intelligence in film discourse (based on selected films);
- To analyze the modes of multimodality, which are used in the films;

The methodological basis was the work on the cinema text of domestic scientists: Yu.M. Lotman, G.G. Slisshkin, and M.A. Efremova, MB Voroshilov, as well as the works on multimodality and film stylistics of the foreign authors: O. Seizov and J. Wildfeuer, Carroll, Tredell, Kellner, O'Regan, G. Kress. A lot of

scientists are turning to the study of film discourse, for example, Yu. M. Lotman, Yu. G. Tsivyan, E. B. Ivanova, Yu. V. Surgay, J. Linzbach, A. Helman and others.

Practical research materials are romantic films “Her” and “Zoe”. “Her” is a science-fiction film written, directed, and produced by Spike Jonze. The film tells about Theodore Twombly, who falls in love with the operating system, an artificial intelligence called Samantha. “Zoe” is a romantic science fiction film directed by Drake Doremus. Zoe and Cole work in the company which tests pair combinability, whether a pair will have happy relationships.

The following research methods were used to achieve the goal and to solve the problems: observation – purposeful perception, predetermined by the task of the study (“Her” and “Zoe” films), deductive method (the method of study according to which, on the basis of general provisions, conclusions are drawn about particular facts), and analysis, which involves dividing the whole into parts and describing each of the parts and the connections between them.

The theoretical significance of the work lies in a systematic approach to the study of multimodality in film discourse.

The scientific novelty lies in the fact that previously multimodality was most often selected from literary texts and considered from a stylistic point of view. Due to the development of science and technology, and as a consequence of changes in culture and art that have led to new approaches and methods of research, multimodality was started to study not only in literary texts but also in films.

CHAPTER ONE. THEORETICAL BACKGROUND

1.1 THE NOTION OF MULTIMODALITY

In modern linguistics, linguists are increasingly turning to the study of issues related to language communication. The growing interest in this field is evidenced by the emergence of several works that involve in the field of linguistic analysis a variety of functional-style variants of the language, including those that have not been the subject of research until recently. Therefore, the texts of the mass media are actively studied, which explains the important role of the latest technologies in the life of modern society. At the same time, the notions of modal linguistics, multimodality, multimodal stylistics, multimodal or creolized text are gaining popularity.

In Western European linguistics, the concept of S. Bally's modality became most widespread. According to the Swiss scientist, "modality is the soul of the proposition, as is the thought formed mainly by the active operation of the speaking subject". (Bally, 1965, p. 44) Therefore, it is not possible to attach a value to an expression unless it has at least some expression of modality. The researcher believes that in the statement it is possible to distinguish the main content (dictum) and its modal part (modus), which expresses the intellectual, emotional and the judgment of the speaker regarding the dictum. Modus and dictum complement each other. Dictum correlates with the imagination, the senses, memory, or imagination, and the modus – with that mental operation, which is done by the thinking subject over it. Modus is an expression of modality. (Bally, 1965, p. 60)

Modal values include two types of values: objective and subjective. Objective modality reflects the nature of the objective relationships intended in a particular situation to which the cognitive act is directed, in particular, the connections of the possible, the real and the necessary. Subjective modality expresses appreciation by the speaker, in particular, indicates the degree of validity of the thought that reflects this reality.

In modern science, it is customary to talk about three types of text: linguistic (verbal), extralinguistic (musical composition, dance, sign language, etc.) and mixed text (advertising message, caricature, poster, graffiti, etc.). To denote mixed text, the term multimodality is used, which has replaced the terms polycode and creolized in the scientific paradigm.

Scientists at the origins of the development of the theory of multimodality (A. Baldry; J. Callaghan, E. McDonald; R. Iedema; C. Jewitt; M. Bednarek, J. R. Martin; G. Kress, Theo van Leeuwen; J. L. Lemke; S. Norris, K. O'Halloran; F. Serafini, T. Royce; P. J. Thibault; L. Unsworth, M. Walsh and others), criticizing their predecessors, drew attention to the fact that most studies related to linguistics focus exclusively in language, ignoring or downplaying the contributions of other modes to the general sense. Highlighting the main thing, we note that with the advent of the theory of multimodality, the idea of the central position of speech and writing in the socio-semiotic world is being destroyed.

The terms “multimodality” and “multimodal text” and the basic principles of the theory of multimodality were first introduced into scientific use and developed by scientists G. Kress and T. van Leeuwen in a joint article “Multimodal discourse” (2001)

According to C. Jewitt, (2009) multimodality can be understood as a theory, perspective, “field of inquiry” or methodological application (Jewitt, 2009, p. 12) According to the Russian linguist A. A. Kibrik, the concept of multimodality refers to the distinction between the human senses, primarily the visual and auditory canals. “Within each of these channels, there are further, more detailed differences, which are also covered by the concept of multimodality. So, in a sounding speech, there are a segment (verbal) component and many non-segment (prosodic) parameters. The visual channel includes gestures, eyes, facial expressions and other aspects of “body language”. The written discourse is also perceived visually, in addition to the verbal component, it includes a whole set of graphic parameters,

such as font, color, format, etc. The modern concept of multimodality includes all this diversity.” (Kibrik, 2010, p. 148)

On the one hand, the concept of multimodality is associated with the concept of modality – “the type of external stimulus perceived by one of the human senses, primarily hearing or vision.” (Kibrik, 2010, p. 135) On the other hand, scientists who follow the theory of social semiotics (G. Kress, T. van Leeuwen, R. Hodge, C. Jewitt, etc.) define multimodality through the concept of semiotic mode as an expressive means of discourse, which produces certain cultural significance. The prefix multi- in the word multimodality itself suggests that some modes are generally available for reproduction by all members of the community. (Bezemer, Gunther, 2016)

To analyze multimodal texts, multimodal discourse analysis is used, developed as an interdisciplinary theoretical and methodological approach based on social semiotics. An example of its application is the collection of research papers “Multimodal Discourse Analysis” edited by K. L. O'Halloran (2004) Articles are devoted to the development of the theory and practice of discourse analysis, which uses a complex of diverse semiotic resources. The analysis of the research is performed by such genres as print media, dynamic, and static electronic media, films and three-dimensional objects.

Multimodality explains the workings of various semiotic resources or modes in the process of multimodal meaning-making. It describes interactions between verbal texts and images, video, speech, gestures, size, and text color (Seizov, Wildfeuer, 2017). One of the leading multimodality theorists, G. Kress, defines *modus* as “a socially formed cultural resource for giving meaning. Images, written text, music, gesture, language, moving images, and soundtracks are all examples of modes used for representation and communication”. (Kress, Leuween, 2001)

Thus, modes are semiotic resources that enable the simultaneous realization of discursive and communicative practices and different types of interaction of its participants. In turn, semiotic modes are transmitted through different perceptual

modes: visual, tactile, audio, olfactory and taste perception. (Siefkes, 2015) The term “modes”, which is used in this context, is more in line with the notion of “codes” or “sign systems” established in semiotics. According to U. Eco's definition, these are systems that establish the repertoire of opposing characters, the rules of their combination, as well as the one-to-one mutual equivalence of a particular character to a particular signified. (Eco, 2006, p. 44)

The main of the key concepts of multimodality is creolized text. For the first time, the term “multimodal / creolized text” was developed by scientists G. Kress and T. van Leeuwen in a joint article “Multimodal Discourse”. (Nørgaard, Montoro, Busse, 2010) By this concept, they mean a text that combines various semiotic systems to obtain more detailed information. Moreover, these sign systems are aimed at the formation of an indivisible system (complex) and cannot be reduced only to individual components. In turn, domestic scholars understand the creolized text as “a complex textual formation in which verbal and non-verbal elements from one visual, structural, semantic and functional whole”. (Anisimova, 2003, p. 46) Creolized texts are complex semiotic associations consisting of a sign system of human speech (including spoken, written and printed forms) and any other sign system (drawings, photographs, music, dance, film, etc.)

Therefore, multimodality consists in the formation of values using different semiotic means – modes (writing, speech, image) – the corresponding socio-cultural conventions. (Seizov, Wildfeuer, 2017). Multimodality is understood as a description of general laws and rules of interaction in a communicative act of verbal and non-verbal signs, a combination of various codes for the presentation of information. (Kress, 2009)

Communication theory defines a code as an element of a basic communication model that conveys meaning. The following communication codes are distinguished: verbal, paralinguistic and extra-linguistic. The verbal code is the transmission of information through written and spoken the language. The paralinguistic code includes all voice means for transmitting information

transmitted by a verbal code. This category includes tempo, timbre, tone, intonation. Extra-linguistic / non-verbal code is represented by means not related to language and speech: gestures, facial expressions, eye contact, postures, time, proxemic space, location.

To conclude, by multimodality we mean a description of general laws and specific rules of interaction in an oral communication act of verbal or non-verbal signs. (Seizov, Wildfeuer, 2017). G. Kress considers multimodal phenomena of interaction between verbal texts and images, video, speech and gestures, text size and color. (Kress, 2009) We believe that any text combining various semiotic codes, requiring updating of several perceptual channels, visual and audio, is multimodal. In discourse analysis, the use of several means or channels of information transfer is commonly called multimodality. Multimodality describes communication in terms of textual, audiovisual, linguistic and spatial modes, which are used to compose and transmit a message.

1.2 MULTIMODAL ANALYSIS OF A FILM

Moving from a verbal medium of literature to a multi-channel medium, such as cinematography, the arsenal of reality displays is expanded: in addition to words (replicas of characters and voice-over), music, sound effects, and visual series that are used in a film. Besides, the words in the film are accompanied by non-verbal techniques such as facial expression, out-of-the-way, which contributes to further verbal contextualization.

Recently, the approach to motion picture has become widespread as a multimodal discourse. As already noted, the basis of many studies on multimodality is based on the system-functional theory of M. A. K. Halliday, (1978) which is taken out of the language of contemporary social semiotics and used to analyze other semiotic systems, in particular, film.

K. Metz, one of the founders of modern cinema theory and the author of *grande syntagmatic*, sees the main task of researchers in the analysis of the

syntagmatic relationships that emerge between film frames. J. Bateman and K.-G. Schmidt, in their multimodal analysis of the film, (Bateman, Schmidt, 2012) take as their basis the basic narratives of K. Metz, on which paradigmatic relations are added, and all this complex construction forms a cinematic discourse.

One of the trends of recent years is the development of multimodal studies aimed at studying the various semiotic systems through which value is generated. Multimodal discourses are discourses in which two or more semiotic modes interact, thereby forming meaning. (Kress, Leuween, 2001) Modus refers to a set of semiotic resources by which value is generated. (Jewitt, Kress, 2003, p. 1)

Some researchers use the term modality when analyzing multimodal discourses. The researcher of multimodal cohesion, Ch. Tseng (2014), notes that in the film there is a complex interaction of various modalities (words, images, sounds, colors, etc.), from the combination of which its meaning is composed. (Tseng, 2014, p. 1) G. Kress and T. van Leuween (2001) emphasize that the formation of meaning in the multimodal text (such as film) cannot be explored without careful analysis of the various modalities. (Kress, Leuween, 2001) For example, oral monologues and dialogues are multimodal, because they consist of two modes: verbal content and voice. Verbal and visual modes are often accompanied by musical motives that belong to the sound mode.

The well-known film genre researcher K. Metz (1973) identifies five different significative substances in the film: a photographic image that moves recorded musical sound, recorded phonetic sounds, recorded noise, and graphic material, that is, the names of the members of the film crew, captions, various inscriptions and the like. -(Metz, 1973, p. 90) Among the main objects of multimodal studios are motion pictures, illustrated books, graphic stories, comics and more. The authors of the multimodal analysis of the movie are J. Bateman and K.-G. Schmidt (Bateman, Schmidt, 2012), based on the principle of the unity of space-time relations, distinguishes several syntagms in the movie. The relationships that exist between the individual frames are considered in the

perspective of projection, taxis (parataxis or hypotaxis) and space-time plan. (Bateman, Schmidt, 2012, p. 181)

C. Tseng (Metz, 1973) offers an approach with a major focus on cross-modal cohesion. This approach involves tracking cohesively related characters, objects, types of action within one frame and across frames, as well as combining them into certain higher-level constructs. This approach involves tracking cohesively related characters, objects, types of action within one frame and across frames, as well as combining them into certain higher-level constructs. The object of analysis is live and non-living objects from the visuals of a motion picture, written text that can be read from the screen, oral speech, sound, and music.

C. Tseng's (1973) multimodal cohesive analysis provides for the construction of two types of cohesive chains: an identification chain and an action chain. The principles for building an identification chain are similar to those underlying the creation of linguistic cohesive chains. The elements of the identification chain may belong to the visual, verbal and audio modes.

Recent empirical studies have shown that understanding narrative structures of motion pictures is largely due to the actions of the characters. (Mital, Smith, Hill, Henderson, 2011) To build a chain of actions, one should dwell on the types of processes found in motion pictures. C. Tseng (1973) identifies the following types of cinematic processes on the basis of the classification of types of linguistic processes of Halliday: a transactional process that demonstrates a dynamic interaction between characters or characters and objects; nontransactional process (demonstrating the behavior of characters without interacting with other characters or objects); the process of responding (for example, looking at a character for another character or object) the verbal process (dialogue or monologue of characters) and the conceptual process (disclosure of the identity or relationships of part-whole characters and objects). (Metz, 1973, p. 116)

Relationships between constructed identity chains and actions are based on their functional-semantic relationships, in particular, between participants, process

types, and circumstances. The main criterion for interaction between chains is the requirement that at least two links of the same chain be in the same semantic relation to two links of the other chain.

Many recent studies focus on the relationship between text and illustrations, which are two different semiotic modes. Traditionally, the analysis of texts and illustrations involved different groups of disciplines that had their vision of the problem and used different approaches and methods of research, then in the multimodal approach, text and images are considered as a combination of interrelated modes. The problems of interaction between verbal and visual elements have been addressed by such researchers as R. Bart, M. Nikolaev and K. Scott, R. Martinek and A. Selway, G. Kress and T. van Leeuwen, T. Royce, J. Bateman, and others. M.-L. Ryan (2009) distinguishes functions of language and image as follows: language can convey temporality, change, causality, thought and dialogue, the distinction between reality and virtuality, or contradictory judgments, interpret narratives, and convey character evaluations; images can convey spatial relations within the world of history, the appearance of characters and elements of the scene, but they cannot convey the movement of time, thought, dialogue, explicitly convey causal relations, represent possibility, conventionality, contradictions of facts and make judgments. (Ryan, 2009)

G. Kress and T. van Leeuwen (2006) in their analysis of the relationship between the reader and the characters focus on the following factors: social distance, attitude (in particular, involvement and power), contact and modality. Social distance is determined by the type of character placement (near, medium or long-range). (Kress, Leeuwen, 2006, p. 124) The degree of involvement depends on the angle from which the character is portrayed, and the sense of maximum involvement arises in the reader when portraying the character face to him.

To sum up, it is notable that the methodological arsenal of film analysis tools is extremely broad. They belong to the field of cognitive poetics, narratology, multimodal research. As part of multimodal research, the relationships between

verbal, visual, and sound modes in movies, illustrated fairy tales, comics, and other multimodal discourses are analyzed.

1.3 THE CONCEPT OF FILM DISCOURSE

Modern cinematography occupies one of the leading positions in terms of the impact on the audience on a global scale, pushing literature to the background. People are now much easier to perceive the film audiovisually than to devote time and effort to reading a book. Thus, all the information that was previously transmitted through printed texts in the modern world is increasingly acquiring a cinematic form.

Affecting precedent, we cannot but to raise the issue of film discourse. Film discourse is a complex linguosemiotic communicative cultural phenomenon related to civilizational values accumulated by mankind from the late XIX - early XX centuries to the present. Moreover, its development is directed to the distant future in connection with the continuous development of information technology and the growing virtualization of human life.

The film discourse differs from the discourse of the theater and other audiovisual discourses in the number of audiovisual effects that simulate “virtual reality”.

Film discourse reflects reality, as pointed out by Russian literary critic and semiotics Yu. M. Lotman (1994). In the film, situations are presented as the authors of the film need it, and not as in reality. Gestures, facial expressions of actors in most cases are close to natural. Film discourse often creates an illusion, conditional reality.

The film discourse is capable of transmitting a huge amount of information in a relatively short period of time, i.e. is an information eventful discourse. The selected type of discourse is created by a large number of authors: director, screenwriters, composer, cameraman etc. The producer, executive director and other persons who authorize the shooting of a script who approve of the

candidatures of the actors have a titanic influence on the production process of the film. However, when the basis of film discourse is a literary work, the question of authorship arises.

Film discourse is associated with visual components. So, researchers G. Slyshkin and M. A. Efremova (2004) in their work write that any oral story is a creolized text. These authors conduct a detailed review of all non-verbal elements of the film: gestures, facial expressions, pantomimes, as well as the paralinguistic and extralinguistic signs. The paralinguistic system includes a vocalization system, i.e. voice timbre, its range and tonality. The extralinguistic system is understood as a pause, coughing, crying, laughing, pace. Paralinguistic and extralinguistic means in oral discourse enhance the impact on the recipient, increase the conciseness, pragmatism and expressiveness of the text. (Slyshkin, Efremova, 2004)

The audience actively participates in the creation of meaning, that is, it is the active, not the passive side, and the film discourse is open to cognition and allows a large number of interpretations. (Zaretskaya, 2013)

Film discourse is expressed by using verbal, non-verbal (including cinematic) signs in accordance with the plan of the collective author; it is fixed on a material medium and is intended for reproduction on a screen and audiovisual perception by spectators. (Lotman, 1973)

Let us turn to the existing definitions of “film discourse”. A. N. Zaretskaya (2013) defines the concept of film discourse as “a coherent text, which is a verbal component of a film, in combination with non-verbal components — the audiovisual series of this film and other extralinguistic factors that are significant for the semantic completeness of the film, i.e. creolized education with the properties of connectedness, integrity, communicative-pragmatic orientation, informativeness, media”. The author draws attention to the fact that although the film discourse is a delayed communication between the collective author and the viewer, he is always aimed at the audience perception. (Zaretskaya, 2013)

In contrast to film text, which is fixed on the film and cannot be changed during playback, film discourse is inherent to process. When exploring the concept

of film discourse, it is necessary to take into account the participants in communication, their cognitive baggage, the space and time in which the interaction takes place. Thus, film discourse can be understood as a process of reproduction and perception of a film, the meaning of which develops under the mutual influence of several semiotic systems. The film discourse includes the participants in the discourse, the time and space of their interaction.

The film discourse mechanism includes three main components: author – film text – viewer or new author. The new author's position is key notion in understanding the essence and specificity of film discourse and means that film information is not only perceived and processed by the recipient, but also is involved in the process of active washing. The viewer is an active side of film discourse, as it allows for multiple interpretations, the depth of which depends on a number of reasons, such as the level of culture and education of the individual and the sociocultural context. The multilevel and multidimensional nature of film discourse, therefore, suggests its inextricable connection with the mental processes of the individual. Possessing suggestive power, film discourse affects the formation of ideological attitudes of the person, represents new models of behavior and activity.

Film experts distinguish two types of film discourse: artistic and documentary. Documentary films include shooting genuine events or science films, which include popular science, educational, research, scientific and production films. Film discourse is recognized as artistic, in which iconic signs and stylized colloquial speech, combined by an aesthetic function, predominate. Basically, an artistic film discourse uses a conversational style of speech, as well as colloquial expressions, jargons, dialects. During the work on the script, the oral live speech of the movie characters is specially selected and processed. (Konovalova, 2012) However, to identify dialogue in the film and the dialogue of natural language is unlawful. The main difference between these phenomena is that dialogue in the cinema is more likely to redirect information to the viewer, while in natural communication the interlocutors do not focus on the information already

known to the interlocutor, respectively, in the movie the words have a double effect. In other words, the film dialogue is one way or another bi-directional, it is simultaneously addressed both to the interlocutor on the screen and directly to the viewer of the film. (Kozloff, 2000)

To sum up, an indisputable fact was the increasing interest of linguists in the study of film discourse in connection with the enormous influence in cinematography on the peculiarities of the perception of the world by modern man. The film discourse is a polyparadigmatic object of study, and for its systematic description, data from a number of sciences are required. Perspective, in our opinion, is the study of film discourse from the point of view of the conceptual systems reflected in it as components of individual and corporate group pictures of the world.

1.4 FILM DISCOURSE AND FILM TEXT: THEIR RELATIONSHIP AND KEY DIFFERENCES

In modern linguistic studies, the terms “film text” and “film discourse” are not clearly distinguished. The concepts of film text and film discourse are very close to each other, but film discourse is still wider and deals with concepts.

M.A. Samkova (2011) claims that film discourse includes film text, film, its interpretation, as well as correlations with other forms of art, such as literature, theater, and with interactive systems - television series, computer games. (Samkova, 2011)

Based on her research, we see that only narrow extra-linguistic factors are included in the film text, and wider in the film discourse: factors of the cultural and ideological environment in which communication takes place.

In turn, A.N. Zaretskaya (2013) includes film discourse audio-visuality, intertextuality, creolization, integrity, articulation, modality, informational content, prospectus, retrospection and pragmatic orientation, as well as case-study discourses (other films of the same genre, director, books). (Zaretskaya, 2013)

It is worth noting that certain elements of film text, such as a phrase spoken by a protagonist, when considering a film discourse, can become precedent and become fixed in the mind in the form of concepts. (Slyshkin, Efremova, 2004)

However, Western linguists, such as M. Dynel, S. Kozloff, K. Richardson, D. Kulpeper, K. Babel, A. Spitz, P. Quaglio, tend to distinguish between film discourse, film dialogue and film discourse. The film discourse is defined as a combination of verbal and non-verbal components of speech, their interaction, and the cinema discourse includes techniques that go beyond linguistics.

In contrast to film text, which is fixed on the film and cannot be changed during playback, film discourse is inherent to process. When exploring the concept of film discourse, it is necessary to take into account the participants in communication, their cognitive baggage, the space and time in which the interaction takes place.

Much more interesting for our study is the concept of film dialogue, which is defined as semantic complete verbal communication in film text, which can be accompanied by an audio-visual series. Modern film texts must correspond to communicative and cultural reality, and film dialogs to the speech standards adopted by modern native speakers. Thus, viewers perceive the film dialogue as a real conversation. Such characteristics as clarity, completeness of information, a large number of language techniques, and static are inherent in it. The film discourse can also penetrate the discourse of everyday live speech, and with the help of speech behavior to reflect one or another historical or cultural period.

We consider it important to note also that within the framework of film discourse, any other discourse, for example, political, situational, love, can be revealed using the film dialogue. In our case, this discourse is due to the genre of film text. So, for example, in a melodrama a discourse of love or friendship may appear, in a historical drama a military discourse or a political one.

So, the concept of film discourse can be defined through the concept of film text. The film text in relation to film discourse can be considered as a fragment of

it, and cinema discourse as a whole text or a combination of texts united by some attribute.

In our opinion, only narrow extra-linguistic factors (factors of the communicative situation) can be included as components of film text, while wide extralinguistic factors (factors of the cultural and ideological environment in which communication takes place) can be included in the cinema-discourse structure.

Thus, for modern linguistics, the study of film discourse as a linguistic entity that has an expanded structure and is characterized by a number of features such as connectivity, integrity, creolization, intertextuality, modality, and so on and providing a wider field of activity for modern researchers than the study of film textures is more productive.

1.5 THE CONCEPT OF A FILM TEXT AS A TYPE OF CREOLIZED TEXT, TYPES OF CREOLIZATION

We can consider film as a text. “Film as a text” is used like a metaphor. This metaphor means that like in the book, we can “read” the story of a film. In modern linguistics exists the notion of film text, which can define the notion of the metaphor “film as a text”.

Film text is a cohesive, complete and finished message, which is expressed by using verbal and non-verbal signs, organized in accordance with the intention of a collective functionally differentiated author, using cinematic codes, recorded on a material medium and intended for reproduction on the screen and audiovisual perception by the audience. (Slyshkin, Efremova, 2004, p. 37)

This definition is given to us by G.G. Slyshkin and M.A. Efremova (2004) and gives a series of evidence. Only film editing specialists can consider film text as a sequence of frames, while for the viewer this is a way of projecting film on the screen. From this we see that one of the main conditions of film text is the presence of a screen, a fixation on some kind of material medium, which can act as a film on a video cassette, DVD and other digital media.

Sometimes film text can be defined as media text. This approach is not completely true, but it indicates the need to take into account a similar method of perception (audiovisual) and the method of presentation to the recipient (screen).

The nonverbal side of the text is often called paralinguistic, as it includes paralinguistic means. In written text, these are: font, graphic characters, italics, underlining, drawings, removals, tables, special punctuation and spelling, width of margins, indents and other means. All these tools can have different functions: for example, they can add emphasis to the author's thoughts, illustrate any phenomena, convey the features of the speech of the characters, and be used to attract attention. In the case when the paralinguistic means in the text carry a certain amount of relevant information and are part of the content plan, such a text is called paralinguistically active. One of the types of such texts is creolized text, which combines verbal and non-verbal information. In this case, paralinguistic means are most often pictorial (iconic) means.

Yu.A. Sorokin and E.F. Tarasov (1990) was also one of the first to determine that “creolized texts are texts whose texture consists of two inhomogeneous parts: verbal (language or speech) and non-verbal (belonging to other sign systems)”. (Sorokin, Tarasov, 1990, p. 180)

This concept was further considered by several scientists, such as E.E. Anisimova (2003), who claims that creolized text is “a linguistic-visual phenomenon, a text in which the verbal and pictorial component form one visual, structural, semantic and functional whole, providing its complex pragmatic impact on the addressee” (Anisimova, 2003)

Anisimova (2003) also notes that the verbal and visual parts, firstly, complement each other, and secondly, they depend on each other. Since the image is clear without words, which means it can exist regardless of verbal. In most cases, the verbal component duplicates or repeats the non-verbal, but in some, the verbal component helps to understand and complement the connotative meaning of the non-verbal.

Depending on the degree of participation of the image in the creolized text, several types of texts are distinguished: with zero, partial or full creolization.

In texts with zero creolization, iconic signs are absent, do not matter and do not participate in the structure of the text. If the image functions independently of the verbal side, then this is a text with partial creolization. In this case, the non-verbal component repeats or accompanies the verbal component and is secondary in the structure of the text.

In texts with complete creolization, the verbal components and the image refer to each other, they are interconnected, semantic relations arise between them, and they cannot exist independently of each other.

In our opinion, film text refers to texts with complete creolization, however, elements of partial creolization can be found in individual frames.

Scientists also have a question about the classification of film texts.

1. By addressee:
 - by age: children - family - adult;
 - the degree of closeness: mass - elitist;
2. By addressant: professional - amateur;
3. According to the degree of originality of the scenario: original - processing (film adaptation, remake) - development (sequel, prequel, sidequel);
4. By genre. The number of genres is constantly increasing;
5. By value for a linguocultural society: precedent – unprecedented.
(Slyshkin, Efremova, 2004)

A precedent text is a text that is significant for a person in a cognitive or emotional relationship. In our case, these are film texts, which can become precedent. For example, the movie “Forrest Gump” already became precedent. Quotes that sound in this film, such as “Run, Forrest, run!”, “Life is like a box of chocolates, you never know what you gonna get” are already in the speech not only by native English speakers, but also in other linguistic cultures.

In the definition, cinematic codes were mentioned with the help of which cinema text is created. These include: angle, frame, light, plan, plot, art space, editing.

In movies, often feelings and emotions, such as dizziness, thinking, pleasure, pain, love, hate, can be expressed non-verbally. Nonverbalics also include natural noises, music, paralinguistic and extralinguistic characteristics of sounding speech.

CONCLUSIONS TO THE CHAPTER ONE

One of the trends of recent years is the widespread use of a mixed approach to discourses in which two or more semiotic modes interact, which include films, picture books, comics, digital tales, and etc. Multimodal approaches are based on identifying the features of narratives at the visual, verbal and sound levels.

The most suitable definition of multimodality is represented in the book, which was written by O. Seizov and J. Wildfeuer, “Introduction: Rethinking multimodality in the twenty-first century”. Multimodality consists in the formation of values using different semiotic means – modes (writing, speech, image) – the corresponding sociocultural conventions. (Seizov, Wildfeuer, 2017). Multimodality is understood as a description of general laws and rules of interaction in a communicative act of verbal and non-verbal signs, a combination of various codes for the presentation of information. (Kress, 2009) Mode is the main concept of multimodality.

Modes are semiotic resources that enable simultaneous realization of discursive and communicative practices and different types of interaction of its participants. In turn, semiotic modes are transmitted through different perceptual modes: visual, tactile, audio, olfactory and taste perception. (Siefkes, 2015)

Recently, the approach to motion picture has become widespread as a multimodal discourse. As already noted, the basis of many studies on multimodality is based on the system-functional theory of M. A. K. Halliday (1978), which is taken out of the language of contemporary social semiotics and used to analyze other semiotic systems, in particular, film.

It is notable that the methodological arsenal of film analysis tools is extremely broad. They belong to the field of cognitive poetics, narratology, multimodal research. As part of multimodal research, the relationships between verbal, visual, and sound modes in movies, illustrated fairy tales, comics, and other multimodal discourses are analyzed.

Another main notion of multimodality is creolized text. For the first time, the term “multimodal / creolized text” was developed by scientists G. Kress and T. van Leeuwen (2001) in a joint article “Multimodal Discourse”. (Nørgaard, Montoro, Busse, 2010) By this concept they mean a text that combines various semiotic systems in order to obtain more detailed information.

Modern cinematography occupies one of the leading positions in terms of the impact on the audience on a global scale, pushing literature to the background. Cinema has become the most widespread of the types of art, a supplier of behaviors for the average medium of modern culture.

Such a cultural phenomenon as film discourse has been an object of study since the end of the 19th century. However, the widespread use of this term has led to numerous variations in its interpretation, as a result of which the term film discourse does not have a generally accepted definition. There were a lot of linguists, who has studied the notion of film discourse, for example, Yu. Lotman, G. Slyshkin, A. Zaretskaya and etc.

The concept of film discourse can be defined through the concept of film text. The film text in relation to film discourse can be considered as a fragment of it, and cinema discourse as a whole text or a combination of texts united by some attribute. However, in contrast to film text, which is fixed on the film and cannot be changed during playback, film discourse is inherent to process.

CHAPTER TWO. MULTIMODAL MANIFESTATION OF ARTIFICIAL INTELLIGENCE IN FILM “HER” AND “ZOE”

2.1 MULTIMODAL ANALYSIS OF FILM “HER”

“Cinematography speaks and wants to be understood”

Yu. Lotman

Today, it is hard to imagine life without computers, mobile phones, the latest technology and convenient devices. Technologies are developing every day. It is seemed that every minute there are more and more of them. Artificial intelligence is not an exception.

The definition of intelligence is controversial. “Individuals differ from one another in their ability to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning, to overcome obstacles by taking thought.” (American Psychological Association, 1995, p. 77)

To many people it seems that artificial intelligence is a distant future, but they face it almost every day. The notion of “artificial intelligence” is a broad field of computer science that aims to imitate human intelligence by machines. Artificial intelligence algorithms first appeared in the 1960s. Devices, pre-programmed for the simplest of reasons, gave rise to early platforms for the creation of complete expert and skilled forecasting systems.

Today there are a lot of examples of using artificial intelligence in everyday life. For example, artificial intelligence has already begun to enter medical offices. Artificial intelligence copes quite well with the diagnosis of diseases: researchers at the John Radcliffe Hospital in Oxford have developed a diagnostic system that detects heart disease in 80% of cases better than doctors, and scientists at Harvard University have taught “a smart microscope” to see dangerous infections in the blood. Companies like Google, Amazon and Microsoft are already offering their home assistants to serve as homeworkers: through a sound control system, they are able to turn on the light, ventilation or music, as well as schedule timetable, report

about traffic jams, to inform about the latest world news, or to recommend the nearest restaurant.

Another example of artificial intelligence is the robot Sofia. It is the world's first robot to receive citizenship. She is able to support conversation, reproduces various plausible facial expressions, and jokes about Elon Musk and the destruction of humanity.

In today's world, the problem of artificial intelligence is increasingly being raised. Every now and then there will be notes in the newspapers that, say, artificial intelligence is already practically created or used in practice for military purposes, space research, medicine, etc.

Passions also ignite fantasy films that tell about the real existence of artificial intelligence. In light of the cult films "The Matrix", "The Terminator", "I, Robot" the viewer concludes that until the creation of artificial intelligence remains to live for a short time, and it will not take centuries, as the fate of mankind will be made by some difficult organized machine. In almost every science-fiction films artificial intelligence is portrayed as evil. They have only one idea to destroy the humanity.

All in all, today artificial intelligence can do everything from turning the light to set up diagnosis or even make surgery. It is seemed that in the nearest future robots will be able to have feelings or even to fall in love with a human. But now it is only represented in films. An example of how artificial intelligence can fall in love with a human is the film "Her".

The film "Her" is science fiction drama, which is produced and directed by Spike Jonze. The film stars such actors as Joaquin Phoenix, Scarlett Johansson, Chris Pratt and others. It was shot in 2013.

The action of this film is set in the nearest future, where the world is almost digitalized, and where people depend on their devices. The main protagonist of the film is Theodore Twombly. He is unhappy in love. His marriage with his childhood love ended in divorce. He feels lonely. One day he decided to install an operating system, which is called OS1. It is an artificial intelligence, which include

virtual assistant. When Theodore asked operating system about the name, after reading a book “How to name your baby”, it decided to pick up the name Samantha. The film shows the development of the relationships between human (Theodore Twombly) and artificial intelligence (Samantha).

The film begins with Theodore, a sad, lonely man with a handful of friends. He works as a letter writer who writes them for couples and families who do not have enough time to write them on their own, or they cannot correctly describe their feelings. Theodore is well versed in people, and therefore successfully does his job. Theodore is an introvert who plays video games in his spare time. He walks sandwiched to sad music, looking down. Sadness, longing is read on his face. At night, he still dreams of his ex-wife, and the time when they were happy. But the light in it had not yet completely died out, and he did not become a complete loner. At times, she seeks communication in chat rooms, and very rarely goes on dates. But he does not need love; he wants to use the girls to heal the wound of a broken heart. This is not to say that the main character is an angel. He is a man, like all of us: he doubts, makes mistakes, does not know what he wants. But once Samantha appears in his life ... She is a self-developing artificial intelligence.

Multimodality can be considered as a sphere of study of discourse. The terms “multimodality” and “multimodal text” and the basic principles of the theory of multimodality were first introduced into scientific use and developed by Gunter Kress and Theo van Leeuwen. (2001) Scientists distinguish the following main theoretical provisions of multimodality:

1. Multimodality assumes that the representation and content of a statement is always based on the interaction of modes. This is constructed by analyzing and describing the full range of tools for creating meanings that people use (visual, conversational, gestural, written, 3D, etc.) in various contexts.
2. Multimodality assumes that there are certain extra-linguistic, semiotically heterogeneous resources to achieve a specific goal.

3. Multimodality admits that it is the norms and rules that were in force at the time the value was created that are the basis for the selection and configuration of modes to create this value. (Kress, Leuween, 2001)

All in all, one of the good explanations of the notion of “multimodality” comes from linguists Seizov and Wildfeuer. Multimodality explains the workings of various semiotic resources, or modes in the process of multimodal meaning making. It describes interactions between verbal texts and images, video, speech, gestures, size, and text color (Seizov, Wildfeuer, 2017). Modes are semiotic resources that enable simultaneous realization of discursive and communicative practices and different types of interaction of its participants. In turn, semiotic modes are transmitted through different perceptual modes: visual, tactile, audio, olfactory and taste perception. The main types of perception in film are auditory and visual, verbal and non-verbal communication, etc.

To begin with analyzing film from the point of multimodality, let us start with the title of the film. The title is the key to interpreting the text (in this case, the movie), according to which the viewer makes his own prediction about the content of the film before it is viewed. It is the main component of the film, because it is the title that gives the reader the first idea of the film, shapes the mood before the screening, and becomes the first step to its analysis. A successful title is the key to the success of the film. The functions of the title are:

1. To catch the viewer attention;
2. To engage viewer in the plot of the film;
3. To select the audience; and
4. To give hints about the message of the film.

As it was said, the title of the film is “Her”. The word “her” refer to the objective, possessive or dative cases of “she”. Spike Jonze decided to choose the title “Her” rather than “She”, to underline that she (the operating system) is the object of man’s perception. Jonze wanted to highlight that she is the operating system with the artificial intelligence not a human. In the film Samantha does not

have a body, like all human have, but she has feelings and the name, which she gives herself. These things are not appropriate for artificial intelligence.

As it known, the inanimate objects in English language designate as “it”. But the title already shows that Samantha is not just a computer or inanimate object. She is a person. She is the girl. And in the film Samantha is represented in that way. At first, Theodore clearly did not expect much from the operating system, but the fact that she is a person, one might say a human, amazed him and captured his imagination.

As it was said, “multimodality” it is the use of different modes, such as different types of perception (auditory, visual, olfactory, gustatory and tactile), verbal and non-verbal communication (gestures, mimics and etc.). (Seizov, Wildfeuer, 2017) The main types of perception, which are given in the film, are visual and auditory. The visual unit of the film is a frame. It is notable that the word “frame” does not refer by its origin to cinema, but to photographs and means a photo taken instantly or with a long exposure, but nevertheless having its own aesthetics. Each frame in the film plays a big role. The impression of the film as a whole depends on how perfect the picture on the screen is.

In cinema, the word “frame” is called something completely different, in a practical sense, a piece of film stock from one assembly gluing to another. But the functions of the frame are too numerous to be able to dwell on such a narrow definition. (Allen, 2012)

The frame indicates the spatial boundaries of the photo, television or film image. In other words, a frame is those phenomena of life that enter the field of view of the lens and are fixed on a film or video tape. (Allen, 2012)

The concept of a shot in cinema is closely connected with the frame. The shot is the scale of the image in the frame. There are 6 types of shots (in relation to showing a person on the screen):

1. Extreme wide shot – a person in full growth and his environment (it is the main content of the frame);
2. Long or wide shot – a person is depicted in full growth;

3. Medium shot depicted a man above the knees;
4. Close-up shows only the head of a man (somewhere from the neck including a little air over the head);
5. Over-the-shoulder shot - frame over the shoulder of the interlocutor; and
6. Extreme close-up or Italian shot, for example, to draw attention to a specific detail of an object or in which the character's eyes are displayed on the whole screen. (Bordwell, Thompson, 2006)



Source: film "Her" by Spike Jonze.

In the film "Her" are represented different types of shots, the main type of the shots is close-up shot. Even the film begins with the close-up of Theodore's face. A close-up focuses the viewer's attention on a specific character and his experiences or feelings. For example, the close-up shot is demonstrated from the beginning of the film. The film begins with Theodore, the protagonist, who is a sad and lonely man with a handful of friends. The close-up is used in this scene to convey the main feelings that main character has. His face shows sadness and anxiety. These are the emotions that Theodore feels, after his divorce with the woman that he had loved all his life.



Source: film “Her” by Spike Jonze.

Another example is the scene where Samantha is trying to say goodbye to Theodore, because she and other operating system are leaving. Samantha is developing so fast that the human world is not interesting for her. She, like other OSs, endowed with artificial intelligence, leaves this world, leaving for something more and yet inaccessible to people. This scene is very painful and heartbreaking. The close-up shot is used in this scene to show the viewer or to make to feel all the pain and misery that the main character feels.

One more example of the close-ups in the film is another grievous scene, when Samantha tells that she fall in love with hundreds of other people. Theodore is puzzled about her announcement, because he thought that Samantha loves only him. The scene is displayed in public, Theodore tries to calm down, despite the fact that he has his private heartbreak and he tries not to show his feelings in the public. This emotional state is demonstrated to the viewer through the close up shot.



Source: film “Her” by Spike Jonze.

The close-ups are not only to show melancholic feelings, but also to display the positive emotions. Theodore takes Samantha on a tour of the city, the mountains, the beach, showing her his daily life, and suddenly he begins to see things he has long known from her point of view - such as he had never seen before. He begins to feel differently. Samantha is cheerful, sensual, charming, can listen and support. With her appearance, the protagonist (Theodore) began to smile more often and seemed to come to life. He believes that he has experienced all the senses. Every day they are getting closer and closer. At first it is friendship, Theodore can be frank only with her, then mental love. In the end, everything turns into a romance. The example of the scene with the full of happiness is when Theodore and Samantha were on the beach. They are communicate with each other, tell different jokes, they just enjoy their time which they spend together. In this scene Samantha expresses her feelings that she has to Theodore. These emotions are new to Samantha and she tries to tell everything that she feels.

To delve deeper into the multimodality of film, one has to pay attention to things that viewers do not usually notice, but at the same time play a significant role in cinematography.

Multimodal construction of artificial intelligence in the film becomes possible due to the visual mode, such as visual metaphors. A metaphor is a literary device that allows people to make a text more vivid and emotional. (Lakoff, Johnson, 2017) It consists in transferring the properties of one object or action to another. Seeing the image of a melting Earth, people will instantly think about global warming. The house, located on open palms, evokes thoughts of security and tranquility, and the light bulb is associated with a brilliant idea, a moment of "enlightenment". These are all examples of visual metaphors. (Lakoff, Johnson, 2017)

A visual metaphor is an image that symbolizes a complex idea or shows the relationship between two concepts that are usually unrelated. Such images will help to attract the attention of the audience and convincingly present ideas. (Lakoff, Johnson, 2017)

Visual metaphor is always a mystery to the viewer. Often it combines incongruous signs of various objects, and this leads to an instant revolution of the usual course of perception. While a verbal metaphor can be visually reflected and easily recognized, a purely artistic visual metaphor is more difficult to "read". (Lakoff, Johnson, 2017)

Visual and verbal metaphors should be distinguished because they have different representations, i.e., visual and verbal metaphors are considered as two ways of expressing the same thing. The meaning and metaphor of the image can also be caused by the way this thought is reflected in verbal form. (Refaie, 2003)

Let us look at clothes in the film "Her". In Spike Jonze's film, people are portrayed as walking posts from Instagram. The costumes look so inscribed in the general environment (retro-future) that people are more likely a continuation of the technique. It is also important that in this world there is simply no bad taste in clothes. All characters are outwardly suited to each other: the advantage of warm tones, tucked-in shirts, and brown trousers. It is notable that none of the characters in the film wear trousers with a belt. Apparently, the size range has expanded so

much in the future that the need for this accessory has disappeared. This relaxes the look a bit, making it less serious. Fashion in the film “Her” is not high-tech, but has gone along the direction of vintage revival that is characteristic of today. It is brought here almost to the point of absurdity, but at the same time the atmosphere of the film (including the visual one) is warm and from it emits the same shyness as from the protagonist.



Source: film “Her” by Spike Jonze.

Tone is the mood or atmosphere of the film. “Her” is a world that embraced melancholy and isolations. In Los Angeles the isolation of Theodore against the tall skyscrapers in a sea of people demonstrates his loneliness. Then there is a simplicity and solitude of his apartment production-wise and location-wise everything just has a sense of isolation and loneliness. The environment itself is conducive to comfort, relaxation, enjoyment (simple wooden furniture, warm colors (primarily orange and brown), as well as white). All this creates an environment for a comfortable life. In the same way, the interior of Theodor's workplace in the company resembles a modern art hall in a museum rather than an office: paintings on the walls and, again, a warm palette of furniture and appliances.

Many times the viewer will find Theodore alone or away from everyone. It is one of the visual metaphors in the film. The hidden message of these scenes is isolation. People depend on their devices and do not communicate with each other in real life. Nowadays, it is quite common to notice that, instead of communicating, young people spend time together on their phone. Usually, smartphone users start their day with, for example, social networking or news feeds, and end it the same way. Smart gadgets have become an integral part of our lives: people use them not only for calls or messages, but also for checking the weather, making online purchases, finding work, and more.



Source: film "Her" by Spike Jonze.

Another usage of visual metaphor is colour palette that is used in the film. Color has an emotional, psychological and even physical effect on us, which sometimes we may not be aware of. The eyes and brain of a person can come to a clear distinction of color only through comparisons and contrasts. That is why most often in the movies they use a complementary color scheme - a contrasting combination of warm and cold colors, which are opposite to each other on the color wheel. This combination of shades makes the composition balanced and perceived naturally.

The most common colour for science fiction is blue. In film “Her” are used warmer tones and colours. These warm tones make people feel happier and more or less trust this world. Psychologists say that the colour can influence a person, determine his character, and cause a certain number of emotions. In most films about the future, the world is depicted as a gray dump left by human civilization. In the film “Her” the futuristic world is clean and beautiful. And the most popular color, apparently, is red. The color palette of the film largely determines its mood, can enhance emotions and emphasize the theme of the plot.

The ambiguity of red depends on the density and tonality. Offset towards the red-orange, he becomes an expression of militancy, danger, superiority, power, madness, as in some scenes from “Macbeth” (2015).



Source: film “Her” by Spike Jonze.

Red, mixed with white (pink), acquires the meaning of purity, lightness, naivety. However, a metaphorical explanation of this color is also possible. For example, the famous character of the world of “Harry Potter” Doroles Umbridge adored pink, which caused her feelings opposite to tenderness and tenderness. Red colour is the main colour in the film.

The protagonist almost all the time clothed in red colour. It is always associated with love, passion, with feelings, with comfort, with warmth, and with

the beginning of life. The red colour shows up in several important scenes and given us a deeper understanding of the character. For example, red is the colour of the couch that Theodore and Catherine shared. It is also the colour of Samantha, the first love he has found since his divorce with Catherine. The colour of the program, which Theodore decided to install, was red. In the film there are a lot of scenes where red colour is represented, from the piece of furniture to the clothes.



Source: film "Her" by Spike Jonze.

The red color, the meaning of which is creation and destruction, low lust and sublime passion, can have different interpretations depending on who it will relate to. For example, in some cases, the red color in psychology is interpreted as self-confidence, one's strengths, as well as the chosen path, in addition - readiness for active actions, an open manifestation of one's strengths and capabilities. On the other hand, red psychology for a weak personality can cause both nervous and physical exhaustion, moreover, this color in this case will openly show that a person experiences the so-called fear of experiences. But in the film the red colour is associated with love and passion. Even the poster to the film is in the red colour.

Love is one of the main concepts of the film. The love of a person and something not living is complex, almost impossible. The protagonist perfectly understands this, but the main thing is feelings, and there is no need to doubt them.

Love is socially accepted craziness. A man needs someone to love, his own soul, even if he is not nearby or even artificial. Heroes fell in love not with their appearance, but with each other's inner world - this is something worth learning from. What feelings and love lead to is the way to describe the ending. The audience, along with the hero, experiences this emotional catharsis, since he believed in their love; they showed us how it was born. But our loved ones, one way or another, are changing. Through Samantha, Theodore, as if he knew himself again, learned to love and live again.



Source: film "Her" by Spike Jonze.

Multimodal representation of artificial intelligence realized through different modes. Besides auditory and visual modes in the film is used kinesthetic mode. This mode is realized in film through the gestures and body movement. The visual channel has a complex internal organization and, like sound, could be split into several channels. Gestures are the leading component of the visual information channel. Gestures are communicative kinesthetic behavior, primarily with the help of hands, able to convey meaning from the speaker to the viewer.

For example, Theodore always rearranges his glasses. This gesture is used when someone wants to attract the attention of others. Or the person, being distracted by the accessory, thereby creates a pause for reflection, temporarily switches his attention and thus wins time to think over the answer. In the case of the film the use of this gesture is different. When Theodore read the letter that he wrote, he rearranges his glasses to think whether he has written everything that important. Sometimes he rearranges his glasses to show that he is a little bit embarrassed.



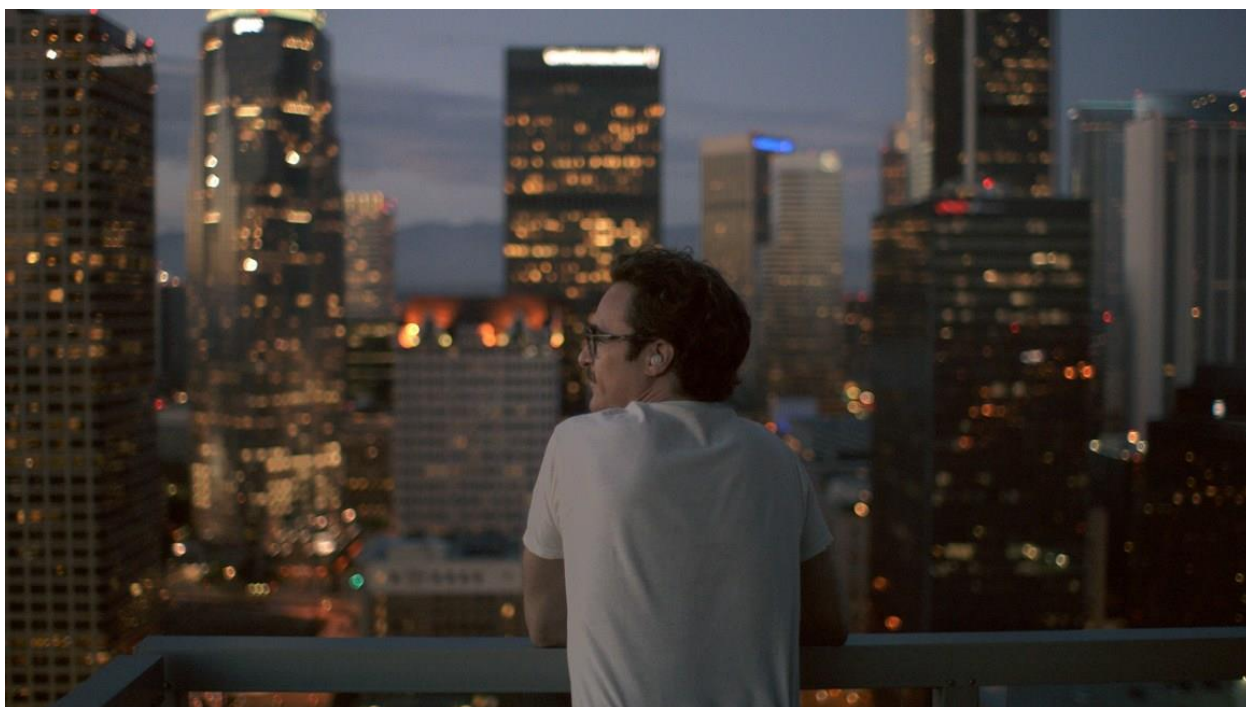
Source: film "Her" by Spike Jonze.

Another type of gesture in the film is crossed arms. This gesture shows the viewer the personality of the character. He is unconfident and inhibited. This pose is often taken by people among strangers. People who hold their hands in their pockets are mostly secretive and tight. These gestures are disappeared till the end of the film, because Samantha helps Theodore to self-develop.

Space is an important part of the director's decision of the film. If you choose it correctly, it helps to express the meaning of the scene and support the main conflict. At first, the space in the cinema was interpreted in a theatrical manner, that is, it was depicted as a backdrop indicating a place or historical time

of action. Gradually, the aesthetic significance of the space displayed on the screen was increasingly recognized. (Bordwell, Thompson, 2006)

The cinematic space is based on three values: the space in which the shot objects are located; the space where the audience is; the plane of the screen. The unity of these three quantities is a dynamic system. The transition from the general plan of the image to the large one already modifies their unity. Space from the deep, as a rule, is transformed into planar. At the same time, the spatial position of the viewer changes: the point of view “from the side” is replaced by the point of view “from the inside” of the depicted scene. (Bordwell, Thompson, 2006)



Source: film “Her” by Spike Jonze.

Multimodality promotes to describe the actualization of space, place and time (Jewitt, 2011). The space of the city is almost the main image in the film. Shanghai and Los Angeles - it was in these cities that the film was shot. Together they turned into one city of the future. A huge urban space opens from the windows of high-rise buildings. It is filled with emptiness: the distance between the houses, the viewing range. The interior space of houses also seems empty. Large perimeters of rooms, while in apartments there is a minimum of things. It is in such a space that the emptiness of relations develops. Rooms, offices, houses,

and the whole city turn out to be ways of organizing emptiness. Like relations between people: their conversations and interactions imitate more, try to portray communication with each other, rather than really turn out to be relationships.

The actions of the film take place in the nearest future. However, the settings of the film do not look like in the future. For example, Theodore works in the company, which makes letters, postcards for people. The letters are written at the dictation of the workers and they seem like they are written in handwriting. The interesting fact is that today letters are not popular. People can call someone to talk or even to send a message. In modern society there are a lot of messengers, so it is easy to communicate with someone whenever it is possible. Also there are a lot of people send postcard and greetings via messengers. Today there are a few people who write letters by hand.

As it was mentioned earlier, the main types of perception in film are auditory and visual. Cinema uses all kinds of sound: language, music, noise, silence. All of these sounds are an important element of the sound series and complement the image. The main auditory mode of the film is the verbal communication between Theodore and Samantha. This mode is realized through the prosodic feature of Samantha's voice. "You seem like a person – but you're just a voice in a computer." Samantha is represented in the film through the voice of Scarlett Johansson.

Prosody is a general term for all modifications of a voice during speech (tone, volume, tempo, rhythm and timbre of a voice). (Crystal, 1969) One of the main elements of prosodic feature of the voice is intonation. Intonation can be defined as a complex formation of interconnected components — tone, volume, tempo, pauses and timbre of a voice, which are realized in speech and distinguish the meaning of a phrase. (Roach, 2009) Special elements of intonation are:

1. speech melody, accompanied by a rising and lowering of the voice in the phrase.

2. speech rhythm, i.e. alternation of stressed and unstressed, long and short syllables;
3. the intensity of the speech, i.e. strength or weakness of pronunciation which associated with increased or weakened aspiration;
4. the tempo of speech, the speed or slowness of the course of speech in time and the pause between speech segments;
5. timbre of speech, i.e. sound color, giving the speech certain emotional expressive shades (timbre “funny”, “playful”, “gloomy”, etc.);
6. phrasal and logical stress, which means the emphasis on speech segments or a single word in a phrase. (Crystal, 1969)

All these element of the intonation are represented in the film. These components of intonation are described in the whole film. The use of intonation in the film helps the viewer understand the emotions that main characters want to express. While speaking Samantha makes long pauses, lowering her voice and sometimes even whispering, especially during the honest and intimate conversation with Theodore. From the beginning of the film, Samantha, while speaking, uses rising tones, sometimes she speaks quickly, because she is excited about what she is doing. In Theodore’s voice there are also some prosodic features. For example, the episode when Theodore has installed operating system, he was amazed and surprised by her ability to grow and learn very fast. His amazement was observed in his intonation.

Let us take a look on the sound effect, such as music. The function of music in the film is to set the viewer’s emotions. For example, in horror films are used specific sounds (scratches nails on glass, baby song, strange sounds and etc.) to keep the viewer in suspense that something scary will happen. Information that is obtained through hearing passes through the five nerve endings and then goes directly to the brain. (Wierzbicki, Platte, Roust, 2012) Therefore, we first respond to the sound, and only then we understand what happened. It is for the reason that a person shudders if hears a loud unexpected sound. This movie is more listenable than watchable. The music in the film “Her” is relaxed, quit and warm, especially

in the scene where Samantha wrote a song for Theodore to describe her feelings. The music in this episode is peaceful. When the viewer listens to this soundtrack, a person understands the real emotions that Samantha wants to express.

Another type of audial effect, which is given in the film, is noises on the background. It should be emphasized that noises function in the sound field of film other than music and language. Noises are instantaneous, meaning information about something real, they do not evolve continuously like music or language, although in some cases this can take place and cause specific effects. (Labelle, 2015)

Usually, noises are used in film in the following cases:

1. in relation to the details of the action (e.g., door slam, steps, etc.);
2. as background (street noise, noise of the forest, water, noise at the station, at the restaurant or at the factory, etc.); and
3. non-existent noise represented by the main character (dreams, hallucinations, delusions, etc.). (Labelle, 2015)

The noises associated with the depicted objects help to better understand what we are seeing, to understand the spatial nature of the depicted objects so as to simultaneously perceive their acoustic plans. (Labelle, 2015)

Sometimes noises create feelings of oneness with the place of action. For example, we hear a car door slam, but we only see the sad face of a woman who looked out the window. If we combine these different phenomena together, we will understand that this woman sadly looks after the one who is in the car; we understand her sadness and at the same time connect these phenomena spatially. (Labelle, 2015)

Noises that perform the function of the background can be even more important, namely: they can inform the viewer about important moments for the action. For example, a person who is lost in the woods hears a dog barking or horses' neighs, realizes that people live nearby.

The most frequently type of noises that is used in the film is the noises on the background. Let us look at the example, which is the scene on the beach. This episode is warm and follows such noises, as people, who are on the beach are laughing and talking, the noise of ocean and birds. The noises in this scene are used to simulate the reality. Everyone loves the sound of the sea or ocean. It makes someone feel relaxed and peaceful. The sound of ocean makes the viewer deep into the atmosphere of the emotional experience of the protagonist.

Another example of noises on the background is the scene where Samantha tells Theodore that she is in love with hundreds of other people. On the background the viewer can hear the sounds footsteps. This scene is beautiful and heartbreaking. Despite that Theodore has a really hard breakdown, people around him pays no attention. It also shows the disconnection in the physical space, everyone is synched into their device, passing by and giving no notice to the crumbled man on the stairs. It is one of the major themes in the film, the disconnection between people in our modern society.

There is another type of audial effect. It is silence. The merit of sound cinema, paradoxically, is that it has opened the dramatic role of silence. Although silence is the absence of sound material, it still has its expressive functions because it interacts with the surrounding sound elements. The effect of the silence is to create an emotional state of the character. (O'Rawe, 2006)

The example of the usage of silence is the episode where Samantha tries to say goodbye, because she and other operating systems is leaving in searching something new. This scene is very emotional. The silence is used here to convey the main feelings of the main characters both Samantha and Theodore. During the emotional dialogue between Theodore and Samantha, Samantha makes long pauses, because it is hard for her to say goodbye. It was hard, because she loves Theodore; he was the first love that she has ever had. In this episode there are not noises on the background. The reason is to concentrate the viewer attention on the

emotional state of the characters. The noises on the background can distract the viewer attention.

All in all, silence is much more than the absence of sound phenomena. Of course, silence also serves as a backdrop for cinematic sound phenomena. In addition, it acts as a bridge between different acoustic phenomena, separating them from each other. Silence can also be a means of continuing the mood of the previous scene, as a general pause in a piece of music. In this case, the silence comments on the image, but it may also be a specific commentary on the image. (O'Rawe, 2006)

Samantha is a triumph of technology. Her artificial intelligence allows her to learn, she knows how to joke, she likes to watch Theodore play video games, and she even has feelings (in a sense). For Theodore, a sensitive type who is undergoing a divorce and earning a living writing love letters for other people, this may be the perfect girl. This is perhaps the most interesting in the film. Without saying this bluntly, he hints that, since an increasing part of our personal lives is going on in the digital space, the objects of our senses may lose their certainty.

In fact, this film has only two true heroes - a man and his machine, and the problem of modern mechanisms for transmitting feelings is more important to him than the people themselves and his emotions. Jones paints a future in which people trust the technology even more than we do now - despite the fact that we trust it very much (just remember how many of our intimate SMS, private letters and photos pass through it). Our love is increasingly taking the form of "hearts" on Instagram and "likes" on Facebook.

Of course, the idea of the film implies a variety of interpretations; however, it is unlikely that anyone will argue that in general, this film is about loneliness and an attempt to escape from it. Artificial intelligence surpasses humans not only in intelligence but also in the ability to express emotions and feelings. A machine is able to understand a person, shares his thoughts with him, and even love.

Watching this film in our time, it is worth to be mentioned that the artificial intelligences, almost like Samantha, already existed. The example is SIRI. SIRI is personal assistant in the phone. It can help schedule timetable, make calls, send messages and etc.

To sum up, multimodal construction of artificial intelligence in the film becomes possible due to the interaction of verbal (conversations of Theodore and Samantha, involving various stylistic means), visual (visual metaphors, artistic details, close-ups of the protagonist, expressing his emotional state), auditory (prosodic features of Samantha's voice), and kinesthetic (gestures, body movements) modes.

Multimodal analysis of "Her" film fostered explication of semantic features, hidden in various verbal, visual, auditory, and kinesthetic forms jointly creating, on the one hand, the image of artificial intelligence Samantha and, on the other hand, constructing prospective relations and possible effects of the latter between a human being and artificial intelligence.

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2.2 MUYIMODAL ANALYSIS OF FILM "ZOE"

In the modern world, robots control aircraft, work in production and advice clients. However, they look like machines, not living things. In science fiction films, they often look like people - not only by their abilities, but also by their appearance.

Artificial intelligence is a field of science and engineering that is engaged in the creation of machines and computer programs with intelligence. It is related to the task of using computers to understand human intelligence. (Chethan, 2018)

Moreover, artificial intelligence should not be limited only to biologically observable methods.

Another case of the study is the film “Zoe” a romantic fiction by Drake Doremus. In the film starts Ewan McGregor, Léa Seydoux, Christina Aguilera and others. The film was realized in 2018 after 5 years, when the film “Her” appeared. It seems like people become closer to the topic of love between human and an artificial intelligence.

Inventor Cole works for a technology company that deals with love issues. The company creates compatibility tests, medications that enhance passion and sophisticated androids that can be lovers and companions. The test gives pair a percentage whether they are suitable for each other. From this test depends whether they will live happily together or not. Cole’s new creation is a robot girl named Zoe. Her program is based on the experiences and memories of real women, and her body is so indistinguishable from the human that Zoe is sure that she was born, and not created. Cole reveals the truth to her only when Zoe falls in love with him. This stuns the android, but she does not give up her feelings, and Cole answers them. However, both he and she doubt that their love is real.



Source: film “Zoe” by Drake Doremus.

On the surface of “Zoe” is the upcoming cyborgization of love and the film has something to say about the addiction to tests, and how distrust fuels the development of “ideal life companions” that will not give up and will not betray. It becomes obvious that the love story of Cole and Zoe is a hypertrophied and “strange” reflection of real romantic difficulties that have nothing to do with programs and processors.

Unlike on-stream commercial androids designed to please customers, Zoe is designed as the most accurate imitation of Homo sapiens. In essence, this is a person with free will and free feelings, just with an unusual internal structure. Therefore, it is not difficult for Cole to fall in love with her, and their happy moments like silly splashing in the lake are unlikely to differ from those that the hero had with his ex-wife and colleague. The man and the android are well together, and nothing bothers them except the gluttonous worm of doubt. Introspection plagues both heroes and turns their feelings into pain. Anyone whose personal life was not perfect can easily imagine themselves in their place.

Paradoxically, the picture becomes even more urgent when it adds a new fantastic detail - a drug that allows you to fall in love with a stranger for several hours. There are no such drugs yet, but mood-controlling pills are now at every step (especially in the USA), and their epidemic is becoming more and more terrible. In Zoe, a love drug attracts those who, like Cole, want to forget their doubts at least for a while and immerse themselves in pure passion. But these are empty experiences, and they, like the buzz from real drugs, do not fill, but drain the person. Chemistry does not replace life.

In modern society there is already exist such program, which search a suitable partner for a person. This program called “Tinder”. The relationships via Internet become more and more popular among people. For them it is easy just to chat with someone, rather than communicate face to face. It is notable, that young people chats with each other even when they are in the same room.

“Zoe” turns out to be a fairly human film in the sense that it is based on not very rational behavior of people. Adding to their universe potentially superior but

yet dependent on them creations like the synthetics Zoe, Doremus makes an attempt to explore the not-so-perfect human nature. In an interview with his ex-wife, Cole agrees that sleeping in an embrace with a robot prototype replacing a partner is creepy, and this uncertainty in subsequent relationships with Zoe is a potentially interesting topic, which the director nonetheless comes to superficially. As a result, the heroine formally gets the opportunity to live by human rules, acquiring the physiological property of a living organism – tears.

There are a lot of examples which are related to the topic of the film “Zoe”. The example is one of the famous serial “Black Mirror”. The episode called “Hang the DJ”. It is the best series, which describes a love story in the era of the “Tinder”. The boy and the girl are on a blind date, which is fully conducted by their gadgets. The computer program chooses not only a partner, a meeting place and dishes, but also the duration of the relationship. One pair measured 12 hours, and some - 5 years, but the participants in the experiment, even if they do not have sympathy, implicitly obey the system. After all, it guarantees that in the end, 98.8% of users will meet love for life.

If compare both films “Her” and “Zoe”, there are a lot of similarities. Firstly, both films share the main idea of loneliness. The slogan for the film “Zoe” is “Future without loneliness”. Secondly, as in the pattern of Spike Jones’s film “Her” the plot focuses on a romantic relationship with artificial intelligence. Cole in a new frame resembles a similar, disturbing idealist Theodore and if the latter had love with a voice interface, then Cole falls in love with a realistic girl, work colleague Zoe. Finally, the main similarity of Theodore and Cole is that they are both unhappy in love and got divorce with their wives. They both try to find their soulmate.

First of all, let us compare the titles of both films. Therefore, examining the title of the text, linguists consider the latter as a subsystem of the text, consisting of a part and a whole with it and playing the role of a mediator between the vertical context (intertextual connections) and the recipient, perceiving the text, with its cognitive baggage and emotional-value sphere. The title of the film also carries out

the function of naming and identification, the function of anticipation, “anticipation of an event,” the function of attracting attention and the urge to watch, and also an informative function.

As it was said before, Spike Jonze decided to name the film “Her” to show that Samantha not only operating system, but also she is individuality, she has her own feelings, like a human. In case of the film “Zoe”, the director named the film in such way to highlight that Zoe is not just a synthetist, she has memories of the past, of her studies, her first kiss, of problems at school, but all this was not there. And Zoe understands this perfectly, she feels everything, so she feels love for a living person, for her colleague Cole. The title “Zoe” shows the viewer that Zoe is not only artificial intelligence, she is person, individuality. This is another similarity that both films share. By the way the name Zoe comes from Greek word and means “life”. It gives us another interpretation of the title, which brings us to the idea that Zoe is real person.

Speaking about multimodal analysis of the film, there are a lot of aspects to say. Multimodality is a characteristic feature of human communication. Communication between people is carried out not only through sounding and written text, but also through gestures, posture, facial expressions, gaze, tone of voice, pictures, photographs and much more. Books use different fonts, headings, and illustrations. Multimodality is a direction in the theory of communication and social semiotics, which considers the communicative process as a combination of textual, sound, linguistic, spatial and visual means or modes for creating a message. (Kress, 2010, p. 79) The main form of multimodality in this film is the use of close-ups.

In the modern world, it is cinema art that is the most advanced system capable of combining, firstly, various types of codes, and both sequentially and simultaneously, secondly, it allows the possibility of using the so-called “double coding” principle.

Cinema, along with theater, literature, television, belongs to the space-time arts. Time is one of the basic elements of the existence and artistic embodiment of a screen work. It consists of three components: physical and psychological time - directly related to the viewer (external), artistic time (time inside the work). Another component of importance is space, which should also be divided into external (cinema space) and internal (intraframe space). (Allen, 2012)

A frame as a discrete unit has a double meaning: it introduces discontinuity, dismemberment and measurability both in cinema space and in cinema time. Moreover, since both of these concepts are measured in the film by one unit - a frame, they turn out to be mutually reversible. Any picture with a spatial extent in real life in a movie can be built as a time chain, divided into frames and arranged in sequence. The study of psychology, the perception of painting and sculpture shows that there, too, the view glides over the text, creating a certain sequence of “reading”. However, cadre membership brings something fundamentally new to this process. Firstly, the reading order is strictly and unambiguously set, and syntax is created. Secondly, this order does not obey the laws of the psychophysiological mechanism, but the purposefulness of the artistic design, the laws of the language of this art. (Allen, 2012)

One of the main elements of the concept of “frame” is the border of the artistic space. Thus, we can single out the most essential: reproducing a visible and mobile way of life, cinema divides it into segments. This division is diverse: for those who create a tape, it is a division into separate frames that, when a film is shown, merge in the same way as when reading poetry, the feet merge into words. For the viewer, this is an alternation of pieces of the image, which, despite individual changes within the frame, are perceived as single. The border of the frame is often defined as the line of gluing by the director of one photographed episode with another. However, for all the huge value of editing (which will be discussed in more detail below), to see the border of the frame only in the editing connection will be an exaggeration. (Allen, 2012)

The frame space is created using the plan, angle, color, light and shadow. The frame is limited by a frame on four sides and in this it is identical to the screen. Intraframe space carries important semantic content. It can be quite realistic, recognizable, concrete or abstract, symbolic. The viewer often “thinks in” the details that occur outside the exposed area. Thus, in addition to the intraframe space, especially if the subject is shot close-up, a so-called off-screen space arises.



Source: film “Zoe” by Drake Doremus.

Almost the entire film is built on close-ups. Each shot has its own name, purpose and features. It is generally accepted to classify shots by size, location and meaning. A significant part of the frame is occupied by the actor’s face from the crown to the shoulders or chin. A viewer can convey the emotions of the characters, as well as his reaction to space. “Zoe” is very emotional film, which tells the viewer about the heartbreaking relationship between man and artificial intelligence. The use of close-ups in this film is to concentrate the viewer attention on the feelings and emotional experience of the main characters. The film is very touching and high-pitched. That is why the director of the film uses close-ups. The close-ups are used for such purposes, as:

1. focuses the attention of the viewer on a specific object that would be missed on the general plan;
2. emphasizes the emotional state of the characters, which helps the actor to express it, and the viewer to feel.



Source: film “Zoe” by Drake Doremus.

The close-ups are used also to describe the atmosphere of the film. The atmosphere in the film is cold and uncomfortable, which is realized through the choice of colours. In the film “Her” are used light and warm colours to create relaxed and comfortable atmosphere and the main colour is red, which is associated with love and passion. In contrast to the film “Her”, “Zoe” reveals muted colours to make more concentration on the feeling of the characters. As if not only colors, but also emotions in this world are muffled. But behind a seeming, mesmerizing calm, which even turns the viewer into an android, there is a huge tension of feelings.

Some of the frames in the film “Zoe” have blur effect on the background. In photography such effect called “bokeh”. This effect is used in the film to hide some unnecessary detail of the frame and to concentrate the viewer’s attention on the emotional state of the characters. At the picture that is given below, the

background is blurred. Actually the scene is located at the park, but this detail is not important for this episode. The attention of the viewer condenses on the feeling that Zoe has at this moment. She is sad about her breakup with Cole, and now she tries find to find someone to heal the pain.



Source: film “Zoe” by Drake Doremus.

Another type of shot that is used in the film is big close-up. The intermediate step between close-up and macro-plan; in the frame is a face from the forehead to the chin. (Allen, 2012) So the viewer's attention is focused on the eyes, subtle facial expressions and emotions. As a rule, it is not suitable for dialogue scenes - it is a “shot of silence”. There are more dialogs in the film that end in silence: instead of a throw line, the character expresses his feelings in front of the camera.



Source: film “Zoe” by Drake Doremus.

This is the last and important scene of the film. In this episode Cole wants to open up about his feeling that he has to Zoe. This scene is heart-breaking and emotional, because at the end of the episode Zoe clarifies that she can allocate tears, but as it known, it is impossible for the robots. That is why this episode filmed with big close-up. During the interaction there are a lot of pauses which are filled with silence, which is also used here to transmit the atmosphere of the scene.

Sound, together with the image, is a full participant in the impact on emotions. The same effect has also silence. As well as in the film “Her”, the silence plays a significant role in “Zoe”. It creates a great emotional impact on the audience. The silence makes the viewer to be more attached to the film. Almost every emotional dialogue ends with silence. During the affective conversation Zoe makes long pauses and sometimes she speaks with whisper. Such technique used here to make a better understanding of feelings that Zoe has. It also used to show all the pain and sadness that Zoe feels, and she can not find a word, it is hard to explain what she feels. Love stories are fainting and verbose: the characters are trying to explain, tell, convey to each other what they feel, but remain behind the barriers of words.

Audial mode in the film is also represented through the prosodic feature of Zoe’s voice. In the film Zoe sounds calm. She speaks not loudly. In the case of the

film “Her”, Samantha uses sometimes in her speech rising tone, because she is excited about everything. Nevertheless, Zoe’s voice calm, relaxed and reserved, mostly she uses lowing tone.

The relationship between the image and the music in the cinema is of particular interest also because they are associated with the modern creative process, with the way the world is artistically displayed. Often, music becomes the territory where the main events take place – the director’s semantic accents are placed by music, additional meaningful nuances are added to what is happening on the screen. (Wierzbicki, Platte, Roust, 2012) There are two functions that traditionally perform music in the cinema. First of all, this is an illustrative or duplicate function. In this case, the music confirms and emphasizes what is happening on the screen; it is synchronized with the frame, emotionally enhances the impact of the artistic image, but does not violate the integrity of the content palette of the image. (Wierzbicki, Platte, Roust, 2012)

Another function is counterpoint or parallel. Music in this function is designed to enrich the image with additional information, new values, clarifying details, nuances; in this case, the musical plan can significantly change the perception of the cinematic image by the viewer. At first glance, the musical line in this case is completely independent, but in fact, the interaction of image and music takes on a hidden and complex form. It exists at the level of meanings. (Wierzbicki, Platte, Roust, 2012)

The music in the film is very catchy. Throughout the film, deep and sweeping melodies literally immerse the viewer in this unique atmosphere of something surreal and at the same time familiar. Music allows us to realize that there is science fiction in the picture, but the world here is still being built around people, human relationships. Music can help the viewers to feel that they are in the future. Another function of the music in the film is the description of characters’ feelings. The music in the film can help the audience to deep into the emotional state and experience. Music involves viewers in the plot of the film.

“Zoe” is also not in a hurry to throw the viewer into the maelstrom of visual entertainment, and carefully unfolds the history of the relationship between the synthetic girl and the living man, slowly and somewhat distantly drawing a plausible picture of the future. The main emphasis is on the sensuality of the characters, on empathy with them. Thanks to the musical line, romantic and melodramatic moments, the movie tries to return a viewer to the experience of past relationships (both successful and not so good).

The example of the relation between sound and image is in the film. The scene where Cole and Zoe was on the scientific conference, there was the program which reacts to the voice and transfers it in a picture. This program can hear even whisper.



Source: film “Zoe” by Drake Doremus.

As it was said before, multimodality forms of the artificial intelligence is represented not only with the help of audial and visual modes, but also with the help of kinesthetic mode. This mode is expressed by the gestures. For example, Zoe tilts her head to the left. Head tilt is a very friendly signal. People who bow their heads to one side while communicating seem to each other much more attractive and trustworthy. A man who approaches a woman, slightly tilting his

head to the right or left, she finds more interesting and beautiful than it really is. In the same way, men find women more attractive, bowing their heads to the side while talking. Moreover, people who, while conversing, bow their heads to their interlocutor, seem friendlier, honest and kind compared to those who keep their heads straight during the conversation.

Another gesture which is represented in both films “Her” and “Zoe” is smile. A smile is a powerful signal of friendliness. A smile makes someone feel happier, relaxed and comfortable. A smile means that someone is really interested in what a person says. Sometimes a smile means that a person is appeal to someone. There are a lot of interpretations of a smile. In the film a smile is used to describe the atmosphere. A smile makes the viewer to feel coziness, comfortableness and calmness.

Space in the film is one of the main concepts of multimodality. “Multimodality based on the relationship between people and the space in which they are located and on people’s experience of space: what they do and with whom, what they feel and how they make sense of the physical and virtual world and the spaces between them.” (Jewitt, 2011)



Source: film “Zoe” by Drake Doremus.

Basically, “Zoe” is a minimalist production, and the world of the future in it is almost no different from the world of the present. But when the film gazes intently into the eyes and souls of the characters, background visual fireworks can only interfere.

The future, as it happens in reality, does not change the whole picture of the world here, there is not flying cars, and does not spill across the screen with the acid fantasy of the production designer, but exists in small details. People still go to exhibitions and listen to records, but a bartender robot pours them a cocktail in a nearby pub.

In the film there is the use of stylistic device such as contrast. The notion of difference, opposites, contradictions, which form the logical and philosophical basis of contrast, was used in ancient philosophy. Since ancient times, thinkers and artists have noted that in art are important techniques of contrast (Aristotle), "opposition, opposition" (Augustine), "conflict" (Hegel). The combination of what cannot be combined, the sharp collision of polarities, the discovery of mutually exclusive concepts of the same essence accompany the artistic development of the world.

Therefore, the term contrast is a complex, multidimensional interdisciplinary concept. Linguistic understanding of this concept can not be complete and adequate without considering its logical and philosophical basis, which is the concept of "opposition", "opposition".

The concept of contrast is a literary device, which is a comparison of any opposing qualities, contributing to their strengthening. (Abrams, Harpham, 2015) The main function of contrast is to make a better understanding of the main idea of the film and clear its meanings, the viewers can easily understand what is going to happen next. Contrast in the film is used to create a comic effect. Real people take pills to experience the first feeling of love, but someone who cannot feel, suddenly begins to show emotions. In the center is a relationship design laboratory. Loners may come here – a computer program will pick them a couple. Special medicines

are tested here: the fictional “Benisol” is able to give a person the feeling of first love. For the first, second, third, tenth time - everything is like the first. Pills are addictive. But pills from loneliness and unrequited love are worked only for a short period of time. Thirsty for first love rummage in garbage cans in search of discarded packages of Benisola.

As is known, artificial intelligence imitates human intelligence, but not emotions. Artificial intelligence can not bear feelings, and people to fall in love need to take pills. During the feel Zoe learn how to love, and Cole starts to take pills to feel the love to the strangers. In this case a paradox is used here. In a broad sense, the word paradox is a phenomenon, situation, event that seems unbelievable and does not correspond to people's usual notions of reality due to an unusual context. The most voluminous phenomenon most commonly encountered in fiction texts is the paradox that touches on eternal problems that matter to both the individual and the development of society as a whole. (Abrams, Harpham, 2015)

The main stylistic device that is used to create the effect of paradox and contrast in the film is antithesis. Antithesis is a stylistic figure formed by the juxtaposition of words or phrases that are opposite in meaning. (Abrams, Harpham, 2015) The function of antithesis in the film is to convey the idea.

Therefore, the first idea of the film is love in tablets. It seems to be good that people can always return the feeling of first love, refresh, so to speak, feelings and relationships. This invention becomes a “drug” for people who can not feel anything without these pills. And then everything is simple – any casual partner for a couple of hours becomes the most beloved.

In the film “Zoe” it turns out that people and robots change places: people can no longer feel love without a pill, and robots, on the contrary, are able to experience a feeling of love without any “drug”. That is, a robot becomes a man, and a man becomes a robot. And the relationship with Zoe is for Cole the most real thing that happened to him in life. However, he finally realizes this after he resurrects a deactivated girl with a kiss. She understood everything and did not

want to live. When the resurrected Zoe hears Cole's declaration of love, she cries (and this is a miracle: this ability is not embedded in robots).

The second topic whether program code can turn into real feelings and emotions. At first, Zoe and Cole are not sure. In any case, that's how Zoe answers Ash. That is, if you are lonely, then here is the opportunity to get the perfect partner – beautiful, loyal and loving. But there is no loneliness. And then every person decides for himself whether he needs such a substitute.

And then everything changes. Zoe finds out that she is synthetic. That is, her feelings for Cole are just program code ... But for her, these are feelings. Alive. The real ones. In general, the relationship between Cole and Zoe is a problem of renunciation and acceptance. The farther they go, the more confused they become - Cole cannot ignore the thought that he created Zoe, while Zoe fights with herself and Cole for the right to be considered a full-fledged person.

To conclude, “Zoe” is an allusion to the film “Her” by Spike Jonze. The main ideas of the film is loneliness, love to the artificial intelligence. The difference is that the main character is tied to the operating system, and not to the android. In both films artificial intelligence develop their feelings and learn how to feel.

Another allusion is to the famous serial “Black Mirror”. The episode called “Hang the DJ”. It is the best series, which describes a love story in the era of the “Tinder”. The boy and the girl are on a blind date, which is fully conducted by their gadgets. The computer program chooses not only a partner, a meeting place and dishes, but also the duration of the relationship.

Zoe works at the company which tests people on their combinability to each other. In modern society there is already exist such program, which search a suitable partner for a person. This program called “Tinder”. The relationships via Internet become more and more popular among people. For them it is easy just to chat with someone, rather than communicate face to face. It is notable, that young people chats with each other even when they are in the same room.

CONCLUSIONS TO THE CHAPTER TWO

To conclude, every day technologies are developing. The development of artificial intelligence is no exception. Today there are a lot of examples of artificial intelligence in modern life. For example, companies like Google, Amazon and Microsoft are already offering their home assistants to serve as homeworkers: through a sound control system, they are able to turn on the light, ventilation or music, as well as schedule timetable, report about traffic jams, to inform about the latest world news, or to recommend the nearest restaurant. The artificial intelligence is even in the mobile phone. The example is an operating system SIRI.

However, most scientists point out that the effects of artificial intelligence may not be satisfactory. For example, Stephen Hawking said: “I do not think that the benefits of artificial intelligence will be useful. When machines reach a critical point, namely being able to develop on their own, we will not be able to predict whether their goals will match ours.” In almost every science-fiction films artificial intelligence is portrayed as evil. They have only one idea to destroy the humanity.

If the artificial intelligences grow so fast, it means that they not only develop their intellectual abilities, but also their feelings and even fall in love with human. The perfect example about the relationships between people and artificial intelligence is the film by Spike Jonze “Her”.

The film constructs a story of a man, Theodore Twombly, a professional writer working in a company as a personal letters’ writer. He divorced his wife Catherine and is depressed. Theodore buys an operating computer system (OS), which includes artificial intelligence virtual assistant (Samantha). Their relationship becomes something bigger for both of them.

Multimodality - the ability of a person to combine several methods (modes) of world development and communication in the process of cognition and communication - verbal, visual, kinetic (gesture), etc. (Kress, Leuween, 2001)

Multimodal construction of artificial intelligence in the film becomes possible due to the interaction of verbal (conversations of Theodore and Samantha,

involving various stylistic means), visual (visual metaphors, artistic details, close-ups of the protagonist, expressing his emotional state), auditory (prosodic features of Samantha's voice), and kinesthetic (gestures, body movements) modes.

The film *Zoe* is closely related to the film "Her". Zoe and Cole are scientists of the future who develop ideal romantic partners - synthetics. Their goal is to save people from loneliness and unrequited love. But the further they advance in their experiments, the more doubtful the results of their work look.

The multimodality of the artificial intelligence in the film "Zoe" is represented through the verbal communication between main characters, visual (close-ups and big close-ups of the main characters, expressing their emotional state), auditory (prosodic feature of Zoe's voice during the emotional conversation with Cole, silence and noises on the background) and kinesthetic (gestures of the characters, which convey the emotions which they express) modes.

GENERAL CONCLUSIONS

In this diploma paper the main questions related to the phenomenon of multimodal forms of artificial intelligence in film discourse were raised.

In modern linguistic science, studies based on new communicative theories and realities are becoming increasingly common. This is due to the development of science and technology, and as a consequence to changes in culture and art that have led to new approaches and methods of research in science. The particular interest to linguists, in addition to studying purely verbal texts, such as books, is media texts that, in addition to the verbal component, also have non-verbal ones.

The topicality of the study is due to the fact that it focuses on modern approaches to the study of linguistic phenomena in the framework of the theory of film discourse and multimodality.

For the research were handled such books of the famous linguists as: N. Carroll, N. Tredell, D. Kellner, T. O'Regan, R. Allen, J. Hochberg and V. Brooks, among others. The first scientists, who analyzed film from the multimodal perspective, were J. Bateman and K.-H. Schmidt, in their work "Multimodal Film Analysis: How Films Mean". And also domestic scientists, studied the notions, which are related to the topic of the study, were: Yu. M. Lotman in the 1970s and his colleagues who were engaged in the poetry and theory of cinema, Yu. G. Tsivyan, Yu. N. Tinyanov, S. M. Eisenstein.

The following research methods were used to achieve the goal and to solve the problems: observation – purposeful perception, predetermined by the task of the study ("Her" and "Zoe" films), deductive method (the method of study according to which, on the basis of general provisions, conclusions are drawn about particular facts), and analysis, which involves dividing the whole into parts and describing each of the parts and the connections between them.

The main notions of the study that were examined, are multimodality, film discourse, stylistic of the film, film text.

Modern cinematography occupies one of the leading positions in terms of the impact on the audience on a global scale, pushing literature to the background. People are now much easier to perceive the film audiovisually than to devote time and effort to reading a book. Thus, all the information that was previously transmitted through printed texts in the modern world is increasingly acquiring a cinematic form.

The film industry is an industry that is producing films, special effects for films, and animation. Today there are a lot of film different genres. Each day film industry are developing and producing a lot of new films. The films which related to the topic of artificial intelligence are not an exception. Countless films have been shot about artificial intelligence in completely different genres: action films, philosophical parables, horror films, drama and etc.

To many people it seems that artificial intelligence is a distant future, but they face it almost every day. The notion of “artificial intelligence” is a broad field of computer science that aims to imitate human intelligence by machines. Artificial intelligence algorithms first appeared in the 1960s. Devices, pre-programmed for the simplest of reasons, gave rise to early platforms for the creation of complete expert and skilled forecasting systems.

Today there are a lot of examples of using artificial intelligence in everyday life. For example, artificial intelligence has already begun to enter medical offices. Artificial intelligence copes quite well with the diagnosis of diseases: researchers at the John Radcliffe Hospital in Oxford have developed a diagnostic system that detects heart disease in 80% of cases better than doctors, and scientists at Harvard University have taught “a smart microscope” to see dangerous infections in the blood. Companies like Google, Amazon and Microsoft are already offering their home assistants to serve as homeworkers: through a sound control system, they are able to turn on the light, ventilation or music, as well as schedule timetable, report about traffic jams, to inform about the latest world news, or to recommend the nearest restaurant.

Another example of artificial intelligence is the robot Sofia. It is the world's first robot to receive citizenship. She is able to support conversation, reproduces various plausible facial expressions, and jokes about Elon Musk and the destruction of humanity.

However, most scientists point out that the effects of artificial intelligence may not be satisfactory. For example, Stephen Hawking said: "I do not think that the benefits of artificial intelligence will be useful. When machines reach a critical point, namely being able to develop on their own, we will not be able to predict whether their goals will match ours." In almost every science-fiction film artificial intelligence is portrayed as evil. They have only one idea to destroy the humanity.

Even today, there are already examples of situations where artificial intelligence is out of human control. Facebook's social network leadership had to shut down its artificial intelligence system after chatbots began to communicate in their own, non-existent language that people couldn't decipher.

The case of the study are films "Her" and "Zoe". These films do not try to depict artificial intelligence as evil, but on the contrary. Both of these films portrayed the romantic relationship between a man and an artificial intelligence.

The film "Her" shows the love story of Theodore Twombly and Samantha (operating system). In the near future, the writer Theodore Twombly is going through a difficult divorce process, still having feelings for his ex-wife Catherine. Samantha's recently acquired artificial intelligence operating system shows an unusual depth of thought, replacing live communication with people. Impressed, he involuntarily falls in love with a soulful computer program, considering her his girlfriend.

The topic of the study is multimodal forms of artificial intelligence in films. Multimodality involves taking into account a large number of modes or channels through which communication can flow. (Kress, Leuween, 2001) Linguists raised the question of what part of the essential meaning the verbal component of speech, prosody and gestures convey. For example, you can take some source material -

some fragment of a film or other video recording - and conditionally select three components in it, creating several versions of the material based on this source fragment. Firstly, it is only the verbal component, which is taken separately. Secondly, it is only prosody, which is obtained by superimposing some kind of “talk behind the wall” filter. And thirdly, it is a separate visual component – a silent movie, as well as, all their possible combinations. Then the groups of experimental subjects were shown various modified versions of this video material and asked them a set of control questions - who knew how much from which component.

Multimodal construction of artificial intelligence in the film becomes possible due to the interaction of verbal (conversations of Theodore and Samantha, involving various stylistic means), visual (visual metaphors, artistic details, close-ups of the protagonist, expressing his emotional state), auditory (prosodic features of Samantha’s voice), and kinesthetic (gestures, body movements) modes.

Multimodal analysis of “Her” film fostered explication of semantic features, hidden in various verbal, visual, auditory, and kinesthetic forms jointly creating, on the one hand, the image of artificial intelligence Samantha and, on the other hand, constructing prospective relations and possible effects of the latter between a human being and artificial intelligence.

Another case of study is the film “Zoe”. Zoe often had to work with a program that counted on whether a couple could hope for a happy and lasting relationship. This girl brought joy when people who came to her got high compatibility, but she never seriously thought that synthetics (the so-called robots) could once replace a person.

When a colleague of Zoe named Cole begins to work on creating a robot that could really feel, the heroine is skeptical at first. But soon she learns an incredible secret that completely changes her life.

The film “Zoe” is closely related to the film “Her”. If compare both films “Her” and “Zoe”, there are a lot of similarities. Firstly, both films share the main

idea of loneliness. The slogan for the film “Zoe” is “Future without loneliness”. Secondly, as in the pattern of Spike Jones’s film “Her” the plot focuses on a romantic relationship with artificial intelligence. Cole in a new frame resembles a similar, disturbing idealist Theodore and if the latter had love with a voice interface, then Cole falls in love with a realistic girl, work colleague Zoe. Finally, the main similarity of Theodore and Cole is that they are both unhappy in love and got divorce with their wives. They both try to find their soulmate.

The multimodality of the artificial intelligence in the film “Zoe” is represented through the verbal communication between main characters, visual (close-ups and big close-ups of the main characters, expressing their emotional state), auditory (prosodic feature of Zoe’s voice during the emotional conversation with Cole, silence and noises on the background) and kinesthetic (gestures of the characters, which convey the emotions which they express) modes.

RÉSUMÉ

Тема дипломної роботи “Мультиmodalьна маніфестація штучного інтелекту в англomовному кінодискурсі XXI століття (на матеріалі кінофільмів “Her” та “Zoe”)”.

Об'єктом дослідження є мультиmodalьність штучного інтелекту у кінодискурсі.

Предметом нашого дослідження є мультиmodalьні форми штучного інтелекту, представлені у фільмах “Вона” та “Зої”.

Мета дослідження – проаналізувати способи мультиmodalьності, які беруть участь у створенні ефекту штучного інтелекту в аналізованому дискурсі фільмів (фільми “Вона” та “Зої”). Для досягнення цієї мети дослідження були поставлені наступні завдання:

1. Визначити основні поняття: стилістика фільму, кінодискурс, мультиmodalьність кінотексту;
2. Проаналізувати, як мультиmodalьність представлена у фільмах;
3. Проаналізуйте мультиmodalьні форми штучного інтелекту в дискурсі фільмів (на основі вибраних фільмів);
4. Проаналізувати модуси мультиmodalьності, які використовуються у фільмах;

В першому розділі було дано визначення основним поняттям (мультиmodalьність, кінодискурс, кінотекст, мультиmodalьний аналіз фільму). Розділ поділяється на п'ять підрозділів. В першому підрозділі було дано саме визначення мультиmodalьності, а також основним поняттям мультиmodalьності (модус, модальність, мультиmodalьний дискурс, мультиmodalьний текст). В другому підрозділі було досліджено саме поняття про мультиmodalьний аналіз фільму. Третій підрозділ – це визначення поняття кінодискурсу, четвертий – має на меті порівняти різницю між кінодискурсом та кінотекстом, п'ятий розділ – пояснює термін кінотекст, як компонента мультиmodalьного тексту.

Другий розділ складається з практичної частини дипломної роботи, а саме мультимодальний аналіз фільмів “Вона” та “Зої”. Було досліджено, які саме використовуються модуси мультимодальності для створення ефекту штучного інтелекту (вербальні, слухові, візуальні, кінестетичні та інші). Другий розділ поділяється на два підрозділи. В першому підрозділі було проаналізовано фільм “Вона”, а в другому підрозділі – “Зої”.

Для досягнення поставленої мети та вирішення проблем були використані такі методи дослідження: спостереження - цілеспрямоване сприйняття, зумовлене завданням дослідження (фільми “Вона” та “Зої”), дедуктивний метод (метод дослідження, згідно з яким, на основі загальних положень робляться висновки щодо конкретних фактів) та аналіз, який передбачає поділ цілого на частини та опис кожної з частин та зв'язків між ними.

Дипломна робота складається з 77 сторінок, в роботі було використано 68 джерел.

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