# **Evocative content-slice of mediadiscourse in forecasting of sustainable development events**

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**Abstract.** The article is devoted to the use of an evocative content-slice in the mediadiscourse for forecasting of sustainable development events. This research toolkit was developed on the basis of evocative representation and is a matrix of collective consciousness, systematizing the relationship of cognitive categories and types of intellectual concept. Cognitive categories and types of intellectual concept were identified in the course of media discourse studies preceding this work in order to identify discursive topics. The matrix of collective consciousness was successfully applied in the development of environmental issues in the media discourse, which provided a theoretical and practical basis for further application on the empirical material of mediatexts on the issues of sustainable development. The study analyzed about five hundred mediatexts for the period from 2020 to 2021. The analyzed empirical material provided an opportunity to study the issue of creating a basis for predicting the events of sustainable development, represented in the mediatexts of electronic media, according to the selected topics of the media discourse, to distribute them into cognitive categories and types of intellectual concept.

# 1 Introduction

In modern society, the issue of sustainable development of countries and entire regions is becoming extremely relevant. Incredible technological progress causes the intensive development of society, countries and entire regions around the world. There are many factors that have determined a new trend in socio-economic management with increased environmental responsibility, the widespread introduction of new technologies borrowed from the experience of developed countries and regions. The social system based on the new principles of development was proclaimed in the "Agenda for the XXI century".

According to the UN definitions of sustainable development (1992), all integrated processes of functioning of society should be determined by the need for responsible use of natural resources. The main goal of sustainable development, set at the beginning of international work aimed at the consumption of environmental resources, was to prevent environmental degradation caused by human activity. Namely, natural resources should be used economically in economic, industrial and infrastructural operations.

The current situation has changed the previous position and enriched the problem with a renewable component, which means the introduction of "green" technologies in the

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production processes and infrastructure support. This component complements resource savings with the goal of updating the environment based on future technologies formed in the context of global development trends. Prevention of environmental degradation and reasonable regulation of resource consumption require forecasting events of global significance in relevant social spheres. However, the whole picture of social development in current trends could form a media discourse.

## 2 Materials and Methods

#### 2.1 Media discourse as a basis of event forecast

#### 2.1.1 Definition of media discourse

Media discourse is a conglomerate of mediatexts internally related to hypertext and topics. Hypertextual relations unite many articles based on current topics of discourse. It should be emphasized that media discourse is a dynamic process, but modern research offers many approaches based on statistics and focused on practical issues of journalism. Media discourse studies do not allow the use of a set of methods and do not offer definitive methods for long-term forecasting of events. In fact, the media discourse was created to record events, describe personalities and evaluate information by competent specialists. However, media discourse is a complex phenomenon that requires a comprehensive interdisciplinary study.

In interdisciplinary research, media discourse provides empirical material for the study of social processes with the ability to predict individual events in various spheres of human activity. Many researchers (E. L. Vartanova, N. V. Dobrosklonskaya, L. M. Zemlyanova, G. Lasswell, M. Talbot, N. Fairclough, etc.) note that media discourse is a dynamic communicative process that occurs in the interrelation of cognitive structures of the entire body of media texts. This means that in media discourse there are global cognitive structures or macro-rules of media discourse (M. L. Makarov), which are reflected in each media text. Thus, mediatexts are created and function according to the specified rules, forming whole information flows that allow us to understand the essence of the events taking place and build a certain vector of their development.

#### 2.1.2 Intelligential concept as unit of media discourse

From the point of view of discursive linguistics, cognitive linguistics and cognitive semantics, the process of forming meanings in media discourse is based on the description of facts of reality transformed into events thanks to the work of a journalist, author or authors of a media text. Exclusively creating media texts, cognitive structures are systematized in accordance with the established macro-rules of media discourse (M. L. Makarov, T. van Dijk, etc.). This process is carried out in a special media space, in which information about the facts of reality is transformed into concepts of a special type peculiar exclusively to media discourse, intellectual concepts.

The classical understanding of the definition of concepts as "Intellectual" or "Intelligential" should not be misleading, since the transmission of information about the facts of reality in mediatexts is determined by the main purpose of media discourse: to inform the mass audience in a special way about holistically presented events. A holistic representation of the fact of reality implies the classical formula of J. Lasswell analytically distributes the description of a fact in accordance with the components of a communicative situation, thereby turning a set of thematically combined facts into an intellectual

representation of the event. Thus, the information concept serves as a unit for transmitting verbal and non-verbal information about an event in the media space.

The intellectual concepts that communicators (authors of mediatexts and their final recipients or mass audience) use in media discourse have all the necessary characteristics and properties of special knowledge in order to exhaustively present a set of facts as an event in an accessible and concise form. Such a representation initially ranks events by current topics or topics of media discourse, as well as by various types of intellectual concepts. This feature of the conceptual knowledge presented in the media discourse makes it possible to build information flows and manipulate them in the interests of political and economic actors and, at the same time, following the information flow, predict subsequent events in a certain sphere of human activity.

# 2.2 Correlations of sustainable development forecasting in mediadiscourse

# 2.2.1 Forecasting correlations in mediadiscourse

In addition, the events of sustainable development presented in the media discourse are intellectually conceptualized as integral semantic structures. The media discourse is aimed at a mass audience, so the linguistic features of the media text may be different, but the conceptual core of the events presented is the same. Conversely, the extraction of an event from a media text for analysis and forecasting is considered taking into account the correlation of the cognitive structure.

The first correlation is the representation of an event by linguistic means. These can be synonyms, grammatical constructions, statistical and semantic means. The second correlation is related to extralinguistic tools of media representation of events, which are accompanied visually and audibly. The third correlations are determined by the partial representation of concepts in human speech and, accordingly, in the media discourse.

The latter feature of the media discourse is considered with verbal and non-verbal representation of the intellectual concept, while the concept in the general meaning must necessarily be designated by the word. Nevertheless, an intellectual concept is a unit of representation of verbal and nonverbal information in a media discourse that performs an informative function and has a number of specific features. In other words, the intellectual concept performs the function of informing the mass recipient, represents an actual event using the language macro rules of the media discourse familiar to most recipients, and creates an exhaustive media.

Therefore, a medially presented event of sustainable development can be interpreted as a message with reactions of behavior algorithms from other types of discourses.

## 2.2.2 The specific feature of sustainable development forecasting events

A specific feature of the media discourse, which contributes most to the prediction of sustainable development, is the presentation of regional events, apparently related to global problems. In fact, the representation of events of this type is divided: regional events may not be correlated with global processes, and global problems may not be related to regional events.

As an example, the analyzed environmental topics showed that the media discourse presents only current environmental events, but with reference to global processes such as global warming. But sometimes it's not. Summing up, we can say that these are mainly regional events with some influence of the global process on them, but on the border of time cycles.

Thus, the current media discourse presents regional events with an attempt to correlate them with global processes. But thematically, media discourse usually tends to global problems, without having the opportunity to comprehensively present it with regional problems. In any case, the separation of both types of events makes it possible to distinguish real regional events from real global processes. This is important because regional political and economic events can be predicted with basic knowledge about the region. On the contrary, global events in the field of sustainable development are predicted based on the analysis of many regional events from different parts of the world.

# 2.3 Evocative representation and using of media content-slice method in mediadiscourse

## 2.3.1 Evocative representation in mediadiscourse

The term "evocation" in Russian science was identified by A. A. Chuvakin studying this phenomenon in literary texts. Following T. van Dijk's position that text and discourse are the basis of cognitive structures and represent a certain fragment of the world [1, 2]. T. van Dijk notes that the text is able to give an idea of events using cognitive structures. The cognitive structure of the media text is based on the classical formula of a media message with intellectual concepts of answering the question "who, what, where, when, how much and how".

A. A. Chuvakin means linguo-situational communication: according to A. A. Chuvakin, only a part of situations is presented in the discourse, the rest of the information is transmitted by special means and features of the text, including such as background knowledge of the recipient of mediatexts [1]. Evocation is one of the cognitive processes occurring in the media discourse, and means representation based on the fixation of the background knowledge of the recipient of media communication.

In addition, evocative representation is the reproduction of intellectual concepts in the understanding of media discourse as a set of mediatexts. The evocative process of reproducing intellectual concepts in media discourse is deeply connected with the representation of reality objects with structures in the form of various types of intellectual concepts and cognitive categories. Structures that inform in such a way that the event functions in a stereotypical situation with the disclosure of topical issues in the media discourse. The topics of the media course contain basic information that facilitates the orientation of recipients in the relevant mediatexts [1, 2].

Based on evocative representation in the media discourse, a content-slice method has been developed that allows identifying mediatexts on any topic, [3, 4].

#### 2.3.2 Evocative media content-slice in mediadiscourse

The content-slice method is based on the approach of evocative representation with the background knowledge of the recipient. This is the author's method of studying media content, which classifies mediatexts by media discourse topics [3, 4]. Intellectual concepts of various types and cognitive categories of media discourse form topics and media communications [5, 6]. The matrix of collective consciousness is used to build a holistic representative model. The matrix of collective consciousness is a research tool for classifying and identifying relevant topics of applied media discourse research [7, 8, 9].

In the case of the central issue of this study, this means the relevant topics of sustainable development. Summing up, the matrix of collective consciousness allows us to list modern topics of sustainable development for long-term assessment and forecasting of events

affecting any region or group of regions. So, let's take a look at the matrix of collective consciousness and describe the components of the media content slice in the media discourse.

The most important components of evocative media content-slice are intellectual concepts of various types and cognitive categories represented by sustainable development topics in the media discourse. In other words, the semantic components of the matrix are cognitive structures that thematically label mediatexts with the type of intellectual concept presented in cognitive categories or rubrics [7, 10].

It is also important to note that the headings on the media sites reveal the direction of the information flow containing intellectual concepts on sustainable development topics. In fact, the rubric combines nuclear intellectual concepts in accordance with the presentation of a topic or rhema by a word or phrase included in several media texts. In previous studies on this issue (M. V. Konovalova, 2015, 2017, 2021 etc.), it was found that the names of media headings combine thematically and rematically intellectual concepts, accompanied by verification, peripheral and hypertext cognitive structures.

The actual complex of cognitive structures of all these types can represent an integral model of the information flow of sustainable development in the matrix of collective consciousness, including such components of media content as types of intellectual concepts (IC), cognitive categories with the theme of sustainable development, headings with content corresponding to IC.

IC types Cognitive Nuclear Nuclear Verifica-Hypertext Hypertext categories Peripheral thematic rhematic tional (thematic) (rhematic) Headline Headline Headline Headline Headline Headline

Table 1. Matrix of collective consciousness.

Thus, the empirical material was analysed structuring the headlines in accordance with the cognitive categories of topics in a holistic model that represents the information stream on the topic of sustainable development in collective consciousness by various types of intellectual concepts in several mediatexts. The results of the study are presented in more detail in the next paragraph of the article.

#### 3 Results

The author's method of media content-slice described above was applied on the empirical material of English-language mediatexts on the topic of sustainable development in the period from 2020 to 2022. In the course of the study, the volume of mediatexts covered a little more than 500 mediatexts of electronic publications.

As a result, with the help of the matrix of collective consciousness, which includes the subthemes of sustainable development relevant in this period, represented in the English-language mediadiscourse, the information stream on the studied topic was presented as follows in some examples:

**Table 2.** Model of informational stream of sustainable development in collective consciousness in the period from 2020 to 2022.

Topics of	IC types						
sustainable	Nuclear	Nuclear	Verifica-tional	Periph	Hypertext	Hypertext	
development	thematic	rhematic	v erifica-tional	eral	(thematic)	(rhematic)	
Environmenta	The Meaning of						
1 Protection	Sustain-ability						
Agency	(Counterpunch)						

(EPA)						
Approaches to sustainability		Four types of CSOs? (GreenBiz)				
Sustainability in business issues	How business leaders shape the future of sustainable development (Safety4Sea)			Why business must focus on long-term value creation to drive sustainability (Weforum)		
Global studying in sustainability	Nearly half say their su	of global CEOs stainability orts ampered: study ess)				
Economic issues of sustainable development	The dollars and sense of sustainability (Pharm progress)					
Branch approach in sustainability		Creating value through SG: A pragmatic approach to sustainable business (The Times of India)				
Sponsorship in sustainable development	Cost to hit U.N. sustainability goals rises to \$176 trillion — report (Reuters)					
Sustainability education	Advancing sustainability through art, expression ar (UNESCO)					
Artificial intelligence in sustainable development	sustainable	telligence in development ce of the high her, UN)				

The analyzed mediatexts demonstrated the following set of topics: Environmental Protection Agency (EPA), Approaches to sustainability, Sustainability in business issues, Global studying in sustainability, Economic issues of sustainable development, Branch approach in sustainability, Sponsorship in sustainable development, Sustainability education, Artificial intelligence in sustainable development. The distribution of the listed topics by cognitive categories of media discourse mainly affects the political and economic situation, ethnicity and time [3].

The political situation is represented by articles telling about events related to the UN. The cognitive category of the economic situation is represented by the mediatexts of the most extensive sample represented by nuclear thematic and rhematic concepts, verification, peripheral and hypertext concepts. The cognitive category of time is represented by the semantics of ecology, the future, as well as discussions of topics in secondary mediatexts at forums and conferences.

#### 4 Discussion

Discussion questions on current scientific issues may cover the further development of the research tools used, the typology of intellectual concepts in media discourse, evocative

representation, as well as a set of cognitive categories presented in English-language media discourse.

With regard to forecasting events in the field of sustainable development, the highlighted general topics can be more specifically applied to specific regions. In particular, the topics of sponsorship, education for the sustainable development of regions, the use of new technologies and, in particular, which technologies, based on the needs and capabilities of the region, which can be determined using the matrix of collective consciousness in a broader study.

Forecasting the events identified in the course of this study can become the basis for decision-making at various levels of regional government. Most of the topics identified during the application of the collective consciousness matrix coincide with the current agenda of most regions around the world, which is due to the universality of media discourse, which consists in addressing mediatexts to a mass audience in many countries.

# **5 Conclusions**

To sum it up, we can say that information stream allow us to predict events exclusively in accordance with a separate, thematically defined hypertext. And only a comprehensive matrix-type analysis, taking into account the cognitive categories of media discourse and the characteristic types of information concepts, will allow us to go beyond the usual forecasting of events in information stream.

This is necessary because a number of events covered in the media, publications of press services and other mediatexts are limited by the editorial policy of information sources and directs the forecasting vector exclusively towards logically following events, which does not always correspond to the real state of affairs.

This pattern of false verification of events, which is extremely characteristic of media discourse and reference documentation of most institutions, is overcome with the help of multidimensional verification of media hypertext by cognitive categories and types of information concepts identified in accordance with the principle of relevance of semantic and syntactic aspects. This approach is extremely relevant when predicting events related to the sustainable development of individual countries, regions, both on the scale of a single country and on a global scale.

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