

**EEIA 2019**  
**International Conference "Education Environment for the  
Information Age"**

**ELECTRONIC ETHNOIDIOGLOSSARY OF CHINGIZ  
AYTMATOV: THE AUTHORS VIEW OF THE WORLD**

Nina L. Chulkina (a)\*, Yuriy N. Philippovich (b), Kairkul E. Kasymalieva (c), Elena A. Osokina (d), Marina V. Danshina (e), Aleksandr Y. Gnevshv (f)

\*Corresponding author

- (a) People's Friendship University of Russia, Moscow, Mikluko-Maklay St. 10, building 2, nina.chulkina@yandex.ru\*  
(b) Moscow Polytechnic University, Moscow, Bolshaya Semyonovskaya St. 38, y\_philippovich@mail.ru  
(c) Ph.D. of Philology, People's Friendship University of Russia, Moscow, Mikluko-Maklay St., 10, building 2, kaira\_17@mail.ru  
(d) V.V.Vinogradov Russian Language University, Moscow, Volhonka St., building 18/2, lenazar@yandex.ru  
(e) Senior Lecturer, Moscow Polytechnic University, Moscow, Bolshaya Semyonovskaya St. 38, marina\_danshina@mail.ru  
(f) Moscow Polytechnic University, Moscow, Bolshaya Semyonovskaya St. 38, agnevshv@gmail.com

***Abstract***

The article is aimed at solving a fundamental scientific problem – modeling linguistic consciousness of Russian language and culture bearer and finding solutions to the problems of knowledge typology, their scope, quality and methods of operating. The source of data for the scientific study is the artistic heritage of the bilingual writer Chingiz Aytmatov. The study includes creation of an electronic Ethnoidioglossary of the bilingual writer Chingiz Aytmatov, which will reveal to the Russian-speaking reader the author's ethnic language and cultural picture of the world, and will definitely ensure easier perception of the distinguished Kyrgyz writer's works and help to revive the interest in national literature in general. The concept of this original lexicographic work was preceded by a scientific study of the language of Chingiz Aytmatov's works, the identification of ethnically specific lexical units in it, revealing the world of Kyrgyz culture to Russian-speaking readers. These units were named ethnoidioglosses. To create an electronic ethnoidioglossary of Chingiz Aytmatov, it is supposed to use instrumental lexicographical informational software complex IDIOLEX. With its help, quantitative characteristics of textual data will be obtained. The collection, initial processing and input of textual, graphical and multimedia materials into the databases must be done in advance. The result of the project will be creation of a project site, writing and publishing of academic articles within the project, presentation of research results at scientific conferences.

© 2019 Published by Future Academy [www.FutureAcademy.org.UK](http://www.FutureAcademy.org.UK)

**Keywords:** Ethnoidioglossary, instrumental lexicography, Multimedia Biobibliographic Dictionary.



## 1. Introduction

The relevance of the study results from the wide spread of multilingualism and intensification of intercultural communication in today's world, and also the need for more thorough study of these phenomena.

The unique theoretical framework of the project is the interdisciplinary study of the language of the bilingual writer who belonged to the Kyrgyz ethnic group, wrote his works mainly in Russian, and yet described his native culture and Kyrgyz people. Such intricate intertwining of two languages and cultures in Chingiz Aytmatov's mind requires from the researchers to look for new methods of reconstruction and description of the author's linguistic view of the world at the intersection of several scientific disciplines – linguistics, psycholinguistics, cognitive linguistics, ethnography and cultural studies (Philippovich, Philippovich, Matveev, & Cherkasova, 2017; Philippovich, Chernysheva, Dubashev, & Chuprina, 2014).

## 2. Problem Statement

The need to develop information technologies to process and present the results of linguistic studies, formal description of complex linguistic phenomena, and how different ethnic groups and cultures view the world.

Lack of modern informational and software tools for support and presentation of reconstruction and no methodology to describe ethnoidioglosses, which may be later used to create similar ethnoidioglossaries of other bilingual writers who represent their national literatures (Cherkasova & Philippovich, 2018; Cherkasova, Philippovich, & Philippovich 2017; Chulkina & Kasymalieva, 2016; Osokina, 2013, 2014; Karaulov, 2008; Dale & Dale, 1965; Edmund, 1963).

## 3. Research Questions

The main tasks of the study are:

- develop the information technology concept to create a gestalt-thesaurus – a hierarchical model of linguistic consciousness of a culture bearer and a language speaker;
- develop a working methodology and information technology to creating ethnoidioglossaries of bilingual writers based on the methodology of reconstruction and description of ethnoidioglosses;
- develop the IEELS architecture, databases, algorithms and computer programs which ensure the information technology implementation;

## 4. Purpose of the Study

The purpose of the study is to develop an electronic Ethnoidioglossary of Chingiz Aytmatov – Information and Software Instrumental Environment of Ethnolinguistic Studies (IEELS). This system should provide inserting into databases textual, graphical (photo) and multimedia (audio, video) content. One of the module have to consist of a set of software tools designed for automated processing of text corpora.

## 5. Research Methods

The development of modern educational technologies which are constructed on the basis of multimedia content in order to help younger generation of Russian-speaking readers, who are brought up mainly in audio-visual culture to focus their attention on Chingiz Aytmatov's works, in particular. Use of modern computer technologies to create multimedia programs that perform scientific and educational functions and contribute to strengthening the intercultural interaction of the CIS countries (Chulkina & Kasymalieva, 2016; Chulkina, 2015a, 2015b; Kasymalieva, 2017a, 2017b).

Processing the textual data with the help of instrumental lexicographical informational software complex IDIOLEX helps to get different quantitative characteristics (Dubashov & Philippovich, 2014; Karaulov, 2014a, 2014b, 2014c, 2000).

Instrumental lexicographical informational and software complex IDIOLEX: a set of software tools designed for automated processing of text corpora in order to create and maintain such lexicographic units as word lists (simple and frequency), concordances (full and local), word indicators, terminological indicators and etc. The software package will be a version of the WinDialex program adapted to create an ethnoidioglossary.

Ethnoidioglossary: Ch. Aytmatov's ethnoidioglosses database.

The ethnoidioglossary will be supposed to contain more than 100 vocabulary entries and consist of two parts:

the word list of ethnoidioglosses with a brief interpretation and illustrations from Chingiz Aytmatov's works. The structure of a vocabulary entry in the word list is mainly divided into two parts: a mandatory part – a brief definition of an ethnoidiogloss and the required notes; an optional – the selection of the number of meanings for the ethnoidiogloss in the author's picture of the world of the writer with illustrative material from Ch. Aytmatov's works;

detailed commentary of the key ethnoidioglosses including explanations of the writer himself, famous cultural scientists and ethnographers. This part of the Ethnoidioglossary consists of a detailed commentary on the ethnocultural idioglosses. The aim of such a detailed commentary is to help ensure that the text at all levels, from the semantics of the linguistic units in the text to the semantics of the text as a whole, is understood. Commentary includes not only linguistic, linguistic-and-cultural but also author's, historical and cultural and ethnographic comments.

A vocabulary entry contains the following information about ethnoidiogloss:

1) Statistical characteristics. The frequency of the ethnoidiogloss, for example HORSE (445), is given in parentheses at the lemma.

2) Meaning of the word. The main principle of meaning description is not interpretation but, namely, an illustration of Ch. Aytmatov's use of an ethnoidiogloss, and the selection of examples that should reveal the meaning of it. The examples should demonstrate, if possible, the full range of the word's uses in a characterized meaning (for example, for fiction, to reflect the use of one or the other word in both the author's speech and the characters' speech), as well as those augmentations or simplifications of the meaning of the described lexical unit that characterize Ch. Aytmarov as a linguistic personality.

3) Description of the ethnoidiogloss use as a part of proper nouns

The vocabulary entry corpus includes cases of the most frequent ethnoidioglosses be a part of proper nouns. Thus, for the ethnoidiogloss AMBLER in this area, there is a nickname of the ambler Gulsara mentioned, in ethnoidiogloss MOUNTAINS – the name of Dolon, Tyan-Shyan, Suleiman mountains and in the ethnoidiogloss WOMAN – the names of women Asel, Jamilya, Aliman, Tolgonay.

4) Description of the use of ethnoidioglosses as a part of proverbs and sayings

Proverbs and saying related to the ethnoidiogloss are referred to.

5) The symbolic use of ethnoidiogloss

For ethnoidiogloss of a symbolic nature, concrete examples of these symbolic meanings are referred to.

6) Text associative field of an ethnoidiogloss

The frequently used words from the illustrative examples of Ch. Aytmatov's works indicating their frequency of occurrence are referred to. For example, the basic ethnoidiogloss WOMAN in Ch. Aytmatov's fiction works forms around itself an associative text field: mother (293), daughter-in-law (262), yurt (53), work (50), bread (40), field (34), milk (27), harvest (21), to work (15), horse (15), foreman (13), headscarf (10), koumiss (8), family home (4), fire (4), foreman's (3), small courtyard (3), household (2), grub hoe (2), pressed dung coals, baibiche, wealth, mistress, preserver of the family hearth, koshma, bostek.

7) List of conditional abbreviations of titles of the texts

Conditional abbreviations of titles of the texts are referred to.

## 6. Findings

Electronic Ethnoidioglossary of the bilingual writer Chingiz Aytmatov represents a unique knowledge-intensive lexicographic product. The ethnoidioglossary will supplement the scientific tools of researchers of the Russian language, the history of culture of the Kyrgyz ethnic group, and intercultural relations. An ethnoidioglossary will be an educational technology instrument for teaching Russian both as a native and as a foreign language.

The instrumental lexicographic information and software complex IDIOLEX and the way it is used is the main component of the information technology that implements the methodology of reconstruction and description of ethnoidioglosses in order to create ethnoidioglosses of bilingual writers. Information technology will significantly improve the effectiveness of ethnolinguistic research and development by automating the processing of texts to form word lists, word indicators and concordances. The complex may be used in educational technologies in the fields of computer science, computer engineering and applied linguistics for students who study methods of computational linguistics, automated text processing and analysis, retrieval of information, and machine translation.

Chingiz Aytmatov's Multimedia Biobibliographic Reference Dictionary will not only provide traditional information about the writer's biography, bibliography and filmography, general and personal word lists, indexes and concordances, but also will contain a contextual information retrieval system on Chingiz Aytmatov's works, online on the internet. The biobibliographic reference dictionary of such structure and functionality is going to be a unique technical solution, it will be created for the first time and will become an important information source for scientists who study Russian language. The

biobibliographic reference dictionary can be used in educational technologies in teaching disciplines of the humanitarian cycle.

Information and Software Instrumental Environment of Ethnolinguistic Studies (IEELS), focused on the works of the Soviet and Kyrgyz writer Chingiz Aytmatov, is one of the “platforms” for the international scientific collaboration of scientists who study the Russian language.

## 7. Conclusion

Information technology of a gestalt-thesaurus creation is a hierarchical model of the linguistic consciousness of a language and culture bearer, which is developed on the basis of methodology of reconstruction and description of the ethnoidioglosses of bilingual writers’ pictures of the world.

Unprecedented unique electronic information resource on the works of the distinguished bilingual writer Chingiz Aytmatov, representing the writer’s linguistic picture of the world in the form of an ethnoidioglossary, will be created and introduced into scientific community.

For the major pieces of fiction by Chingiz Aytmatov, a reference framework has already been created. This framework contains lists of word frequency count, indicators (indexes) and concordances. Information referral system works with Chingiz Aytmatov’s multimedia Biobibliographic dictionary.

## References

- Cherkasova, G.A., & Phillipovich, Yu.N. (2018). Natsionalnaya identichnost v elektronnom assotsiativnom slovare. Informatsionnaya tekhnologiya sopostavitelnogo analiza assotsiativnogo yazykovogo soznaniya nositeley raznykh kultur [National identity in the electronic associative dictionary. Information technology of comparative analysis of associative language consciousness of different cultures bearers]. In E.Y. Titarenko (Ed.), *Russian language in a multicultural world. Collection of scientific articles of the II International Symposium* (pp. 62-70) [in Rus.].
- Cherkasova, G.A., Phillipovich, Yu.N., & Phillipovich, A. Yu. (2017). Oblachnyy servis podderzhki poliyazychnykh psikholingvisticheskikh issledovaniy [Cloud support service for multilingual psycholinguistic studies]. In A.N. Rudyakov & YU.V. Dorofeev (Eds.), *VIII International Crimean Linguistic Congress “LANGUAGE AND WORLD”* (pp. 182-186). Collection of scientific reports [in Rus.].
- Chulkina, N.L., & Kasymalieva, K.E. (2016). Tekstovoye assotsiativnoye pole etnokulturnoy idioglossy «IGRA» (na materiale povesti Ch. Aytmatova «Proshchay. Gulsary!») [Text associative field of the ethnocultural idiogloss “GAME” (based on Ch. Aytmatov’s short story “Goodbye, Gulsary!”)]. *Studies of the National Society of Applied Linguistics*, 3, 55 [in Rus.].
- Chulkina, N.L. (2015a). Otrazheniye «Mnogomernykh mirov» yazyka v sovremennykh lingvokulturologicheskikh slovaryakh [Reflection of the “Multidimensional worlds” of the language in modern linguistic and cultural dictionaries. Multidimensional worlds of language]. In *Selected works of the International Scientific Conference. People's Friendship University of Russia* (pp. 387-403) [in Rus.].
- Chulkina, N.L. (2015b). Yazykovaya kartina mira i natsionalnaya kontseptosfera: ontologiya. metody rekonstruktsii i edynitsy opisaniya [The linguistic picture of the world and the national conceptual sphere: ontology, reconstruction methods and description units]. *Vestnik of People's Friendship University of Russia. Series: Language theory. Semiotics. Semantics*, 1, 76-82 [in Rus.].
- Dale, A.J., & Dale, N. (1965). Some clumping experiments for Associative document retrieval. «*Amer Docum*», 1.
- Dubashov, A.E., & Philippovich, Yu. N. (2014). Eksperimentalnyye issledovaniya teksta slovarya russkogo yazyka XI-XVII vv [Experimental studies of the XI-XVII centuries Russian language

- dictionary text]. In the collection: Written legacy and information technologies. In V.A. Baranov, V. Zhelyazkova, A. M. Lavrentyev (Eds.), *El'Manuscript-2014 Materials from the V International Scientific Conference* (pp.374-376) [in Rus.].
- Edmund, H. (1963). *Styles. Machine retrieval using the association factor. «Machine indexing progress and problems. Papers, present at the third Institute on Information Storage and retrieval, 1961». Second printing.* American University.
- Karaulov, Yu. N. (2000). Ponyatiye idioglossy i slovar yazyka Dostoyevskogo [The concept of idiogloss and Dostoevsky's language dictionary]. In Yu. N. Karaulov (Ed.), *Dostoevsky's Word 2000: a collection of articles* (pp. 424-444). Moscow [in Rus.].
- Karaulov, Yu. N. (2008). *Slovar yazyka Dostoyevskogo. Idioglossariy.* [Dostoevsky's Language Dictionary. Idioglossary]. Moscow: Azbykovnik [in Rus.].
- Karaulov, Yu. N. (2014a). Assotsiativnyy analiz. Novyy podkhod i interpretatsii khudozhestvennogo teksta: kollektivnaya monografiya [Associative analysis. New approach and interpretation of a fiction text: a collective monograph]. In E. A. Osokina (Ed.), *Word of Dostoevsky. Idiostyle and the view of the world* (pp. 61-89). Moscow: LEKSRUS [in Rus.].
- Karaulov, Yu. N. (2014b). Problemy sostavleniya slovara yazyka Dostoyevskogo i predlagayemye leksikograficheskiye resheniya [Problems of compiling Dostoevsky's language dictionary and proposed lexicographical solutions]. In E.A. Osokina (Ed.), *Word of Dostoevsky. Idiostyle and the view of the world* (pp. 89 -107). Moscow: LEKSRUS [in Rus.].
- Karaulov, Yu. N. (2014c). Ot slovara yazyka pisatelya k poznaniyu ego mira: kollektivnaya monografiya [From the author's language dictionary to learning his world: a collective monograph]. In E. A. Osokina (Ed.), *Word of Dostoevsky 2014. Idiostyle and the view of the world* (pp. 115-131). Moscow: LEKSRUS [in Rus.].
- Kasymalieva, K.E. (2017a). Etnokulturnaya idioglossa GORY v avtorskoy yazykovoy kartine mira Chingiza Aytmatova [Ethnocultural idiogloss MOUNTAINS in the author's linguistic picture of the world of Chingiz Aytmatov]. *Psycholinguistics matters*, 2(32), 150-158 [in Rus.].
- Kasymalieva, K.E. (2017b). *Etnokulturnyye idioglossy v avtorskoy yazykovoy kartine mira i ikh leksikograficheskoye predstavleniye* [Ethnocultural idioglosses in the author's linguistic picture of the world and their lexicographic presentation] (Doctoral Dissertation). Moscow [in Rus.].
- Osokina, E. A. (2013). Sistemnyye osobennosti klassifikatsii v idioglossarii [Systematic classification features in the idioglossary]. In *the collection of articles: Author's lexicography and history of words of L.L. Shestakov. On the 50th anniversary of the publication of "Pushkin's language dictionary"* (pp. 223-231). Moscow. [in Rus.].
- Osokina, E. A. (2014). Slovar yazyka Dostoyevskogo. Za predelami avtorskoy poetiki: klassifikatsionnoye «drevo» [Dostoevsky's language dictionary. Beyond the author's poetics: classification tree]. In E. A. Osokina (Ed.), *Word of Dostoevsky 2014. Idiostyle and the picture of the world* (pp. 467 – 476). Moscow: LEKSRUS [in Rus.].
- Philippovich, Yu.N., Phillipovich, A.Yu., Matveev, D.G., & Cherkasova, G.A. (2017). Izmeneniya v mentalnosti sovremennykh buryat (po rezultatam psikhosemanticheskikh issledovaniy) [Changes in the mentality of the modern Buryats (based on the results of psychosemantic studies)]. In *Collection of scientific works based on the materials of the International Symposium "Russian language in the multicultural world"* (pp. 392-397) [in Rus.].
- Philippovich, Yu.N., Chernysheva, M.I., Dubashov, A.E., & Chuprina, L.N. (2014). Instrumentalnaya sreda nauchnykh issledovaniy na osnove slovara russkogo yazyka XI-XVII [The scientific studies instrumental environment based on the XI-XVII Russian dictionary]. In V.A. Baranov, V. Zhelyazkova, A. M. Lavrentyev (Eds.), *Collection of scientific works "Written legacy and information technologies. El'Manuscript-2014"*, Materials from V International Scientific Conference (pp.385-388) [in Rus.].