Игровая топонимика: влияние локализации китайских видеоигр на их перевод

На Цзунюань[1], Гуань Сюцзюань[2], И. С. Карабулатова[3]

[1,2,3]*Хэйлунцзянский университет, Харбин, Китай*
[3]*Московский государственный университет им. М. В. Ломоносова, Москва, Россия*
[3]*Российский университет дружбы народов им. П. Лумумбы, Москва, Россия*
[1]*n3xuss@icloud.com,* [2]*guanshan4500@sina.com,* [3]*radogost2000@mail.ru*

Аннотация. Авторы рассматривают аспекты современной переводной видеоигры, понимаемой как новый тип поликодового искусства благодаря использованию достижений нейроэстетики, истории, фольклористики, культурологии в виртуальных игровых вселенных и вероятностного прогнозирования речеповеденческих профилей пользователей видеоигр. Исследование выполнено на основе анализа переводов топонимических локусов в видеоигре, особое внимание уделяется специфике перевода в зависимости от страны, в которой данная игра получила распространение.

Original article

Game Toponymy: the Impact of Localization of Chinese Video Games on Their Translation

Junyuan Na[1], Xiujuan Guan[2], Irina S. Karabulatova[3]

[1,2,3]*Heilongjiang University, Harbin, China*
[3]*Lomonosov MSU, Moscow, Russia,* [3]*Lumumba RUDN-university, Moscow, Russia*
[1]*n3xuss@icloud.com,* [2]*guanshan4500@sina.com,* [3]*radogost2000@mail.ru*

Abstract. The authors consider aspects of modern translated video games, understood as a new type of polycode art through the use of achievements in neuroesthetics, history, folklore, cultural studies in virtual game universes and probabilistic forecasting of speech and behavioral profiles of video game users. The study is based on the analysis of translations of toponymic loci in a video game, special attention is paid to the specifics of translation depending on the country in which this game is distributed.

Языкознание

INTRODUCTION

The challenges of translating video game locations involve the process of adapting an original game from one language and culture to other languages and cultures in order to make it more accessible to players in different countries and regions [Chandler, O'Malley-Deming, 2012; Kharlashkin, 2016]. These issues open up new aspects in digital toponymy, which has been highlighted literally only recently. The onomastic problems of translating video game loci relate to the process of translating an original game from one language and cultural environment into other languages and cultural environments in order to better adapt to players in different countries and regions. Building the toponymic space of a video game is an important part of the global promotion of game developers. Chinese gaming products are of great interest to the international user audience, which creates serious challenges for translators. Currently, interdisciplinary research in the field of ideology as a new science based on the multicomponent analysis of computer games is actively developing [Wilson, 2012].

The relevance of this study lies in the insufficient research on the phenomenon of video games in translation studies [Khoshsalighen, Zoraqi, 2022]. The study focuses on the toponymic space within a video game, which is related to the process of localizing event action, translating text, and adapting game interfaces, dialogues, and images to ensure a consistent user experience for players in different countries.

The toponymy of a video game is an important component of the so-called geolocation mobile games, which are a variant of a digital double of a map of the real world, at the same time it can represent a digital double of a fictional mental world created by analogy with physical reality, folklore and artistic ethnocultural tradition of naming the area [Bukharova, 2021; Włodowska, 2021].

Consequently, the localization of video games is a complex process that involves transforming the original game from its original language and cultural context into other languages and cultural settings, as well as adapting game elements such as text, dialogue, images, and interface. The aim of localization is to provide a more satisfying gaming experience for players from different countries and regions by taking into account their linguistic and cultural differences. In this regard, the term "localization" is an appropriate definition, as defined by A. D. Schweitzer: "the process of interlingual and intercultural communication" [Schweitzer, 1988, p. 20].

Translation is the conversion of content from one language into another, while maintaining the original meaning and intent. This is particularly important for documents, technical publications, and scientific journals, as these types of texts need to be accurate in conveying information. It is essential to ensure the accuracy of translations to ensure that the meanings in the target language are consistent with those in the source text.

Thus, there are many points of view on the study of video game localization, such as metaphorical game toponymy and its translation, the application of developments in digital humanities, projective management, and the use of a digital twin.

MATERIALS AND METHODS

In this study, we use Citespace as a visualization tool for conducting hotspot analysis. This allows us to identify the shortcomings of current research and consider the prospects in this area in the future. The following main sources were used to search for literary materials: China National Knowledge Infrastructure (China), eLibrary.RU and Web of Science (WoS) Literature data from WoS and CNKI can be imported into Cityspace for visualization, data from eLibrary.RU cannot be imported in a format supported by Citespace. That's why we use the built-in analysis tools.

The philosophical and phenomenological approach is aimed at focusing on new phenomena that arise when diving into the space of the digital twin of linguistic culture in a video game: the symmetry of instruction, clustering of evaluative reflection, the need for a virtual assistant, and increasing the value of communication among gamers.

The perspective that can most directly improve translation quality is a translation perspective. However, traditional translation theory may not be applicable to the localization of video games, which often involve a large volume of text and complex data extraction processes. This presents a challenge for studying the localization of video games from a translation theory perspective.

Corpus translation can accurately analyze the macro and micro characteristics of a language, allowing translators to quickly understand the characteristics of a text and contribute to the optimization of the translation process by analyzing corpus data.

In this paper, Citespace is used as a visual research tool to conduct literature research for the period from 2013 to 2022. This research provides an insight into the current state of research and its shortcomings, as well as prospects for future development. The development of the video game industry is closely linked to the globalization process, and research into the localization of video games is actively ongoing. In this paper, we have analyzed the

current state of localization research for video games in three languages: Chinese, Russian, and English.

The following research methods were used during the course of this project:

1. Methods of analysis and synthesis to collect and generalize theoretical material.
2. Pre-translation analysis to accurately understand the translation unit in context.
3. Comparative analysis to identify differences between linguistic units in the original text and the translation.
4. Continuous sampling to compile lists of toponyms, anthroponyms, and their translations in English, Chinese, and Russian for further analysis.
5. Descriptive method to ensure the most accurate and complete transmission of the theoretical basis.
6. Statistical calculation to process the results obtained.
7. Computer visualization of the findings.

RESULTS

In CNKI, 27 relevant articles were found for the keyword "localization of video games", including 2 articles from the core of Peking University and CSSCI (Chinese Social Sciences Citation Index). The number of relevant articles is shown in the figure.1. In 2022, 7 articles were published, which is 133 % more than in 2021, but still significantly less than the 57 articles published in eLIBRARY.RU. At the same time, there is a lot of research on the localization of games on eLibrary.RU is growing year by year, the average increase is 47.4 %, the largest increase is 100 % in 2019.

The amount of relevant literature available in the main library at eLibrary is significantly larger than in WoS and CNKI. This indicates that foreign researchers devote much more effort to researching game localization compared to Chinese researchers, who are lagging behind in this area. The quality of the research outputs from Chinese scholars is also lower (fig.1).
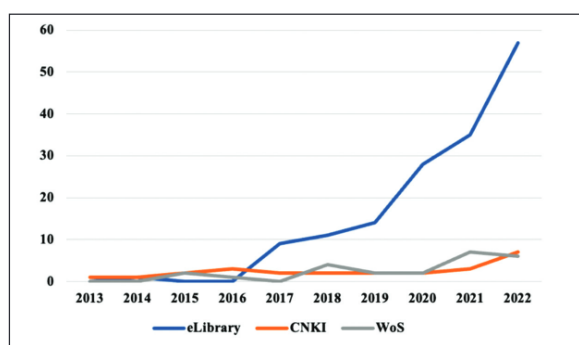

Fig. 1. The number of publications in eLIBRARY.RU, CNKI and WoS

According to the number of articles in the core of Web of Science, it can be found that the largest number of publications related to the localization of video games was carried out in Spain – only 9 articles, which is 30% of the total number of publications. Spain is followed by Jordan with 3 articles, which is 10%, and Iran with 2 articles, which is 6.7%. Compared to these countries, the United States, as one of the most developed countries in the global video game industry, has released only 1 article. This indicates that extensive and in-depth academic research on video game localization has not been conducted in the United States.

Despite the fact that American game companies are responsible for the localization of various language versions, there has not been enough academic research on game localization in the United States. In Spain, English is not the official language, so non-Spanish localization teams face certain problems in the localization process, and these problems are usually described in academic research conducted in the target language countries.

Russia ranks third in the world in terms of the number of players after the United States and China, so there is a large amount of literature on the topic of localization of video games in Russia. However, most of this literature is not included in the core of the RSCI (Russian Science Citation Index), and the quality of research is lower than in the Web of Science (Fig. 2).
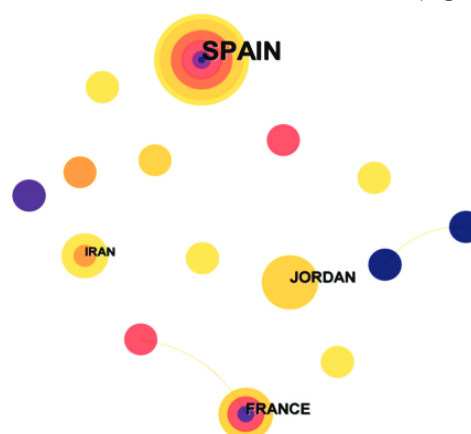
Fig. 2. Country of origin of analytical literature on localization of video games

In the Web of Science, only three authors have published more than two articles on the topic of localization of video games. The most published author is Carme Mangiron from Barcelona, Spain, with four articles on the subject. The second most published author from the University of Jaime I, Spain is Laura Mejias-Clement, who has three publications, mainly in the field of multimodality and dubbing of video games. Mohammed Al-Batineh also has three publications and deals with linguistics and player

Языкознание

preferences in video game localization. Zhang Wu Jiang from the Beijing Institute of Electronic Science and Technology has the largest number of articles on CNKI – two, and his main research interests are related to localization and translation strategies.

TOP-10 TERM'S

№	Term	Frequency
1	Video games	12
2	Video game localization	12
3	Localization	6
4	Arabic video game	3
5	Localization	3
6	Translation	2
7	Innovation	2
8	Video game industry	2
9	Language	2
10	Knowledge audiovisual translation	2

A comparative table of the number of publications is shown in Table 1. As can be seen from the figure, the popularity of domestic research on game localization is significantly lower compared to foreign countries. Since 2014, the annual number of articles has been around 2, with only a slight increase in the number published in 2022 to 7. While this represents a significant growth compared to the previous eight years, the total number of publications remains significantly lower than that of eLibrary, which published 57 articles in EN. For comparison, the popularity of game localization research in RU has grown steadily year on year. Since 2017, the number of posts has increased year after year, with an average increase of 47.4 %. The largest increase occurred in 2019, when it reached 100 %. Growth in 2022 also reached 63 %.

The number of related documents in the Web of Science core library is significantly higher than in the e-Library. This indicates that foreign scientists pay more attention to game localization research than Chinese researchers. However, domestic research on game localization is relatively behind, and the quality of the research results is lower. A keyword search for "localization of video games" in the Web of Science database yielded 30 relevant publications. After visualizing the data using CitespaceV, Figures 3 and 1 were generated. The localization of video games is a complex process that involves translating content from one language to another, and Arabic localization is one of the most significant areas. This is because the Arabic language has unique features that make it challenging to translate text effectively. Audiovisual translation, such as subtitle translation and voice acting, is an integral part of this process. Additionally, cultural adaptation plays a

crucial role in localization, as video games often have a strong cultural identity and context that can influence player experiences. Proper cultural adaptation can help to mitigate the negative effects of cultural shock for the audience of a game.

After conducting a visual analysis, it becomes clear that the study of video game localization has many disadvantages. Data analysis methods are not sufficiently systematic and scientific, and most of the work is based on the analysis of individual cases. However, this approach is not able to identify the general characteristics of the text under study and does not exclude the influence of other factors on the conclusions.

According to the keywords "localization of video games", 30 related publications were identified in the Web of Science database. After visualizing the data in CitespaceV, Figure 3 was obtained. Localization of video games is a complex translation process, and it can be noted that localization of video games in Arabic is one of the main directions. This is due to the fact that the Arabic language has its own unique features in the display of text, which creates certain difficulties for the localization of video games in this language. Audiovisual translation is an important part of the localization of video games, the process of converting non-written forms of expression into written ones, including translation of subtitles, dubbing, etc. In addition, cultural adaptation is an important factor in localization, since video games have a cultural affiliation, and different cultural contexts can significantly affect players. Proper cultural adaptation helps to avoid the negative impact of cultural shock on the audience of the game.

After conducting a visual analysis, it becomes clear that the study of video game localization has many disadvantages. Data analysis methods are insufficiently systematic and scientific, and most of the work is based on the analysis of individual cases. However, this approach is not able to identify the general characteristics of the text under study and does not exclude the influence of other factors on the conclusions.
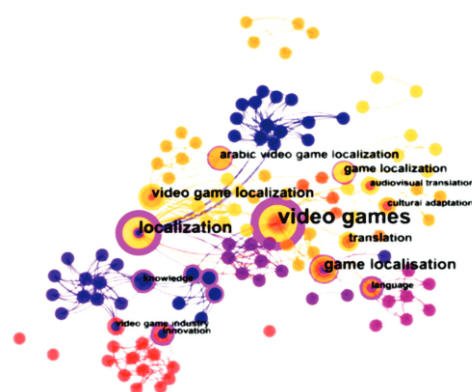

Fig. 3. Research trends in video game localization

A good translation that accurately conveys all the nuances of the original text plays an important role in how the target audience perceives a product. Poor-quality translations can not only ruin a player's experience by destroying the atmosphere of a game, but they can also affect the player's decisions, changing the course of the plot.

One of the main challenges in translating computer games is dealing with proper names. In particular, anthroponyms (names of people) and toponyms (place names) can play a significant role in conveying the intended meaning of the author. The presence of these names in the game's text, which are designed to trigger certain associations in the player, can lead to difficulties in translation.

During localization, the main focus is on adapting the product to the new target market's culture, rather than trying to preserve the characteristics of the original culture.

Depending on their budget and goals, companies can choose different levels of localization. If we consider that localization is more important, the more words of a certain type in the game, and the more significant the text is for making decisions in the gameplay, MMORPGs, RPGs, and quests will come first, while puzzles and casual games will be last. There are six levels of localization, and each subsequent level includes all the previous levels:

1. Paper localization (includes translating the box, user manual, etc.).
2. Economic localization (the entire text in the game is translated, from the interface and subtitles to hints and descriptions).
3. In-depth localization (sound files are also translated, and the game is played again).
4. Excessive localization (graphic objects are also localized; it may be necessary to change the text or remove certain characters prohibited in the target country).
5. Deep localization (the scenario adapts to a specific country) [Merlian, 2014, p. 245].

So, the localization of games is becoming an increasingly integral part of their promotion on the international market in today's world, and therefore, the need for high-quality implementation is also growing, including the translation of game text. Creating a vast majority of large games takes years and a significant amount of money, so companies are interested in ensuring that they successfully enter foreign markets, among other things.

In this regard, preference is given to the highest level of game localization, which implies the maximum level of cultural adaptation, with the depth of localization ranging from economic to deep, if necessary.

Proper names often have a complex semantic structure and the ability to transform. They also have numerous connections with other units and categories in the language. Anthroponyms, for example, can indicate the gender and nationality of a person. In computer games, there are special categories of anthroponyms that indicate the status of a character. When creating toponyms, productive models are used to give them typical, familiar features for native speakers.

DISCUSSION

The development of the video game industry is intrinsically linked to the process of globalization, and research into the localization of video games has also progressed.

Localization of computer games has also been described by H. M. Chandler and S. O'Malley-Deming [Chandler, O'Malley-Deming 2012] as the process of translating games into other languages. However, Chandler herself clarifies that localization involves many stages beyond simply translating text, audio, or video files. Based on this, the author suggests using the term "linguistic localization" to more accurately describe the process. A. Pym believes that localization is often mistakenly referred to as a complete process of translating and adapting products, when in fact it should only refer to changing details for better understanding by the target culture [Pym, 2011].

Localization of video games is partially similar to literary translation, but there are some important differences between the two processes. In literary translation, the main goal is to preserve the original meaning and beauty of the text, while in localization, the focus is on adapting the text to the target audience and culture [Bredikhin, Leonov, 2019].

While both processes involve translating text from one language to another, the approach is different. In literary translation, attention is paid to preserving the original style and structure of the text. However, in localization, the goal is to create a text that is easy to understand and enjoyable for the target audience. This means that the language may be simplified or adapted to suit the cultural context. Because of this, during the process of localization, it is important to ensure that the functional needs of the game take precedence over cultural factors.

Zhu Xuan argues that the incorrect adaptation of cultural images in the localization of video games can lead to translators imposing their own interpretations, making it difficult for players to fully understand the cultural context of the game [朱璇, 2014].

Low research value of language materials used in video game localization. To conduct research on the localization of video games, it is essential to choose

138

Vestnik of MSLU. Humanities. Issue 9 (890) / 2024

high-quality sources of language materials. The language materials in publications selected from the e-library and WoS websites are mainly derived from AAA (triple-A) games, such as Hyperpunk 2077, The Witcher 3, and Some of Us. These games provide a vast amount of language material, sufficient to create a small corpus.

However, it has been found that many researchers simply take the text from the game's gameplay and justify their conclusions based on these language materials. As a result, there may be serious problems with the source of the language materials selected, as more or less subjective factors can affect the objectivity of the conclusions.

The choice of appropriate name translation methods will depend on the approach the translator takes: foreignization or domestication. Domestication is inherent in the highest level of adaptation to the target culture. In recent years, domestication has gained popularity, as jokes, cultural references, and wordplay are adapted pragmatically, and transcription is often used to transform the translated text completely. Sometimes, the need to consider several factors can lead to some being sacrificed in favor of others. For example, to convey the national character of a name's design, it may be necessary to give up preserving its internal form [Em, Toizhan, 2022; Khoshsalighen, Zoraqi, 2022].

Video game localization studies lack analysis using corpus tools, most articles provide only analyses of individual examples. The use of corpora makes it possible to clarify the nature of localization, properties and laws of the localization process in the field of translation studies more effectively. According to Figure 4, it can be seen that popular areas of research are legal translation, news translation, parallel corpus, corpus translation studies, corpus linguistics, etc. Popular research languages are English, Chinese, Spanish, French, Russian, etc. Currently, there is still no study of video game localization using corpus tools, and video games as software extract text materials relatively more easily and efficiently.
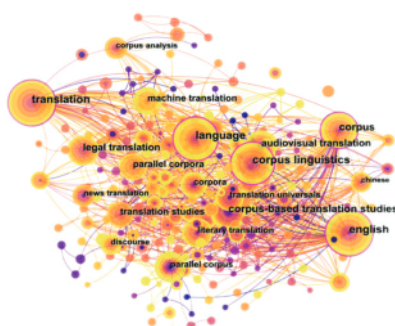

Fig. 4. Visualization of research on the topic of corpus translation studies

Currently, research on corpus-based translation studies in China mainly focuses on the individual

translator's style, translation universals, teaching translation, interpretation research, and other related fields. However, there is a lack of corpora and research related to the localization of video games, despite the strong compatibility between video games and corpus-based tools. Extracting and processing textual materials from video games is relatively easier compared to other types of materials, which presents new research opportunities in the field of video game localization using corpus-based translation tools [Mikhailin, 2023; Peng, 2022].

Video games, by their very nature, have a high cultural significance. Cultural factors take priority in the localization process, being one of the most fundamental and important aspects of video games [Fekete, Porkoláb, 2019]. If these cultural factors are not taken into account during the localization, strong negative reviews are likely to arise in the target country.

First and foremost, it is essential to understand the significance of the cultural context in video games. The cultural elements of video games stem from various sources, and therefore, it is crucial for localization teams to research relevant encyclopedias, literature, and consult with professionals in this field in order to guide the localization process [Shkurko, 2022]. As T. V. Em & J. N. Toizhan suggests, creating space for cultural contexts in games is vital in preserving the experience, atmosphere, and emotions that video games offer players [Toizhan, 2022].

Secondly, it is essential to integrate cultural aspects more deeply into the localization process and enhance the professionalism of teams working on this task. At present, many gaming companies employ localizers with varying levels of cultural sensitivity and translation expertise. Therefore, it is crucial to provide adequate training for localization teams and choose only highly skilled localization service providers.

Thirdly, video game texts should be actively analyzed using corpus tools. The data obtained from this analysis should then be analyzed using the principles of corpus translation studies. These tools can help researchers analyze texts at both the micro and macro level, revealing information that may not be visible in individual studies, and generating new ideas for optimizing localization.

CONCLUSION

Based on the results of this study, it is possible to conclude that visualization methods based on CiteSpace can be very useful for analyzing trends in the field of computer game localization. This approach allows researchers to better understand the

structure of scientific papers related to this topic and identify the most significant and relevant areas in this field. In addition, the results of the study can be used to identify promising areas for further research in computer game localization.

While the analysis of individual cases of video game localization may not be sufficient to create a comprehensive theoretical base, the use of corpus-based tools for analyzing video game textual data is a viable solution.

Until now, there has been no single algorithm for bringing the game to the international level, and decisions on globalization are made individually. Nevertheless, large projects are fully localized, which indicates the importance of localization for the product's success.

Proper names, such as anthroponyms and toponyms, which are particularly interesting for this research, occupy a special place in translation. Translators working on them need to consider more factors than they do with other text units, such as preserving tradition, allusions, references to nationality, and additional connotations. The onomastic world of video games, especially game toponymy, structures the understanding of geolocation in so-called mobile games, so that the variant of the digital twin of offline reality begins to influence the perception of the map of the real world, its history and culture.

СПИСОК ИСТОЧНИКОВ

1. Chandler H. M., O'Malley-Deming S. The Game Localization Handbook. 2nd ed. Sudbury, MA; Ontario and London: Jones & Bartlett Learning, 2012.

2. Харлашкин М. Н. Особенности дискурса видеоигр // Вестник Московского государственного областного университета. Серия: Лингвистика. 2016. № 1. С. 92–98. DOI: 10.18384/2310-712X-2016-1-92-98.

3. Wilson P. The Video Game Industry: Formation, Present State, and Future: Formation, Present State, and Future. ProQuest Ebook Central: Taylor & Francis Group, 2012.

4. Khoshsalighen M., Zoraqi A. A. Enhancing Video Games Localization through Dubbing // Translation and Translanguaging in Multilingual Contexts. 2022. № 8 (3). P. 342–347.

5. Бухарова А. А. Имя собственное как прецедентная номинация в составе лексико-грамматической конструкции XYZ // Вестник Московского государственного лингвистического университета. Гуманитарные науки. 2021. Вып. 9 (851). С. 135–147. DOI: 10.52070/2542-2197_2021_9_851_135.

6. Włodowska Z. (2021). Wybrane toponimy w rosyjskim przekładzie gry The Elder Scrolls V: Skyrim // Pattern Recognition. 2021. № 1 (173). S. 218–232. doi:10.31261/pr.8957.

7. Швейцер А. Д. Теория перевода: состояние, проблемы, аспекты/ под ред. В. Н. Ярцева; Академия наук СССР, Институт языкознания. М.: Наука, 1988.

8. Мерлиан С. Э. Локализация как вид переводческой деятельности// Коммуникативные аспекты языка и культуры: материалы XIV Международной научно-практической конференции студентов и молодых ученых. Томск: Изд-во Томского политехнического университета, 2014. С. 241–247.

9. Pym A. The Oxford Handbook of Translation Studies. New York: Oxford University Press Inc., 2011.

10. Бредихин С. Н., Леонов А. А. Трансформация структуры концепта в процессе локализации компьютерных игр с элементами жанра фэнтези // Актуальные проблемы филологии и педагогической лингвистики, 2019. Т. 1. С. 70–76. DOI: 10.29025/2079-6021-2019-1-70-76. – EDN TISHLZ

11. 朱璇. 游戏翻译中文化意象的翻译策略[D].北京外国语大学, 2014 = Чжу Сюань. Переводческие стратегии культурных образов в игровом переводе. Пекинский университет иностранных языков, 2014 (на кит. яз.).

12. Эм Т. В., Тойжан Ж. Н. Особенности передачи культурных реалий при локализации видеоигр // Достижения в науке и образовании 2022: сборник статей II Международного конкурса научных исследований, Пенза, 15 мая 2022 г. Пенза: Наука и образование (ИП Гуляев Г.Ю.), 2022. С. 112–114. EDN IIWWDM.

13. Михайлин И. А. Топонимика компьютерных игр (на материале игры «Ведьмак 3. Дикая охота») // Русский язык в образовательном пространстве Юга России и Северного Кавказа. II Новиковские чтения: материалы Международной научной конференции по общей и региональной ономастике. Майкоп: Изд-во Адыгейского государственного университета, 2023. С. 128–131.

14. Peng W Q. Video game localization as homecoming in Total War: Three Kingdoms // Translator. 2022. № 28 (1). P. 95–111.

15. Fekete T., & Porkoláb Á. From Arkngthand to Wretched Squalor: Fictional place-names in The Elder Scrolls universe // ICAME Journal. 2019. № 43. P. 23–58.

Языкознание

16. Шкурко Е. А. К вопросу о возможных трудностях при переводе русскоязычных видеоигр (на примере видеоигры «Metro: 2033 Redux» и ее английской локализации) // Шаги в науку: сборник материалов Межвузовского научного семинара, Брянск, 18 ноября 2022 г. Брянск: Брянский государственный университет имени академика И. Г. Петровского, 2022. С. 112–118. EDN UFTMRY.

REFERENCE

1. Chandler, H. M., O'Malley-Deming, S. (2012). The Game Localization Handbook. 2nd ed. Sudbury, MA; Ontario and London: Jones & Bartlett Learning.
2. Kharlashkin, M. (2016). Features of discourse of videogames. Bulletin of the Moscow State Regional University, 1, 92–98.
3. Wilson, P. (2012). The Video Game Industry: Formation, Present State, and Future: Formation, Present State, and Future. ProQuest Ebook Central: Taylor & Francis Group.
4. Khoshsalighen, M., Zoraqi, A. A. (2022). Enhancing Video Games Localization through Dubbing. Translation and Translanguaging in Multilingual Contexts, 8(3), 342–347.
5. Bukharova, A. A. (2021). Proper names as precedent nominations within the XYZ construction. Vestnik of Moscow State Linguistic University. Humanities, 9(851), 135–147. DOI: 10.52070/2542-2197_2021_9_851_135.
6. Włodowska, Z. (2021). Wybrane toponimy w rosyjskim przekładzie gry The Elder Scrolls V: Skyrim. Pattern Recognition, 1(173), 218–232. doi:10.31261/pr.8957.
7. Schweitzer, A. D. (1988). Theory of translation: status, problems, aspects / ed. by V. N. Yartsev; Academy of Sciences of the USSR, Institute of Linguistics. Moscow: Nauka. (In Russ.)
8. Merlian, S. E. (2014). Localization as a kind of translation activity. In Communicative aspects of language and Culture (pp. 241–247): Materials of the XIV International Scientific and Practical Conference of Students and Young Scientists. Tomsk: Publishing House of Tomsk Polytechnic University. (In Russ.)
9. Pym, A. (2011). The Oxford Handbook of Translation Studies. New York: Oxford University Press Inc.
10. Bredikhin, S. N., Leonov, A. A. (2019). Transformation of the concept structure in the process of localization of computer games with elements of the fantasy genre. Actual problems of philology and pedagogical linguistics. 1, 70–76. 10.29025/2079-6021-2019-1-70-76. EDN TISHLZ. (In Russ.)
11. 朱璇. 游戏翻译中文化意象的翻译策略[D].北京外国语大学, 2014. Zhu Xuan. (2014). Translation strategies of cultural images in game translation. Beijing Foreign Studies University. (In Chinese)
12. Em, T. V., Toizhan, J. N. (2022). Features of the transmission of cultural realities in the localization of video games. In Achievements in Science and education 2022 (pp. 112–114): collection of articles of the II International Scientific Research Competition, Penza, May 15, 2022. Penza: Science and Education (IP Gulyaev G.Yu.). EDN IIWWDM. (In Russ.)
13. Mikhailin, I. A. (2023). Toponymy of computer games (based on the material of the game "The Witcher 3. Wild Hunt"). In The Russian language in the educational space of Southern Russia and the North Caucasus. II Novikov readings (pp. 128–131). Proceedings of the International Scientific Conference on General and Regional Onomastics. Maikop: Publishing House of the Adygea State University. (In Russ.)
14. Peng, W Q. (2022). Video game localization as homecoming in Total War: Three Kingdoms. The Translator, 28(1), 95–111.
15. Fekete, T., Porkoláb, Á. (2019). From Arkngthand to Wretched Squalor: Fictional place-names in The Elder Scrolls universe. ICAME Journal, 43, 23–58.
16. Shkurko, E. A. (2022). On the issue of possible difficulties in translating Russian-language video games (using the example of the video game "Metro: 2033 Redux" and its English localization). Steps into science (pp. 112–118): collection of materials of the Interuniversity scientific seminar, Bryansk, November 18, 2022. Bryansk: Bryansk State University named after Academician I.G. Petrovsky. EDN UFTMRY. (In Russ.).

ИНФОРМАЦИЯ ОБ АВТОРАХ

На Цзунюань
аспирант Института русского языка
Хэйлунцзянского университета

Гуань Сюцзюань

доктор филологических наук, профессор
заместитель директора Института русского языка
Хэйлунцзянского университета

Карабулатова Ирина Советовна

доктор филологических наук, профессор
руководитель научно-исследовательского центра цифровых гуманитарных технологий
Института русского языка Хэйлунцзянского университета
руководитель проекта
ведущий научный сотрудник лаборатории «Машинное обучение и семантический анализ»
Института перспективных исследований проблем искусственного интеллекта и интеллектуальных систем
Московского государственного университета им. М. В. Ломоносова
профессор кафедры иностранных языков филологического факультета РУДН им. П. Лумумбы

INFORMATION ABOUT THE AUTHORS

Na Junyuan

post-graduate student
Institute of Russian Language

Guan Xiujuan

Doctor of Philology (Dr. habil.), Professor
Deputy-director of Institute of Russian Language, Heilongjiang University

Karabulatova Irina Sovetovna

Doctor of Philology (Dr. habil.), Professor
Head of Scientical-Research Center of Digital Humanitarian Technologies, Institute of Russian Language, Heilongjiang University
Project Manager
leading researcher of laboratory of machine learning and semantic analysis, Institute AI, Lomonosov Moscow State University
professor of department of foreign languages of Faculty of Philology, Lumumba RUDN-university