

- 1) Financial management;
- 2) Management of material resources;
- 3) Cost management;
- 4) Personnel management;
- 5) Technological planning;
- 6) Customer relationship management;
- 7) Supply management;
- 8) Business analytics.

Information technology allows people to apply methods to optimize various processes. The development of information systems for computer processing, accumulation and storage of information creates a new information base that can be applied in the nearest future in order to develop this sector of the economy or even to create a new sector with goals and objectives that are implicit for us.

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### THE PROBLEMS OF LOCALIZATION IN VIDEOGAMES BASED ON «UNCHARTED» GAME SERIES: THE PERCEPTION EFFECT AS A NEUROLINGUISTICS ASPECTS

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The article focuses on the problems of the video games adaptation from one language to another, which is called localization and considers the peculiarities of the localization of such aspects of video games as the game title, the wordplay, direct addressing, context dependence, slang usage and some cultural features. The analysis is based on the series of action-adventure «Uncharted» video game developed by Naughty Dog and published by Sony Computer Entertainment for the Playstation consoles [1].

Key words: localization, syntax, semantics, morphology, context, blind translation, culture.

Localization of texts is not only a professional translation, but also technical, linguistic and even cultural adaptation of texts to the national characteristics of a particular country, region or ethnic group, as well as the language. The process of localizing a computer game very often occurs simultaneously with its creation in the original language, which helps to bring the game to the market of several countries at once. The purpose of the article is to reveal the lapses in the localization of the series of «Uncharted» video game with a special attention to the neurolinguistic theory, as well as, to offer the solutions.

The main objectives have been formulated in the following way: to analyze methods and nature of localization, to contrast English and Russian versions of the game, to reveal the problems in game localization, to offer the solutions to the problems found. Video game localization is the special preparation of video game software and hardware for the market in a new region or even a country. In spite of the fact that text translation can be considered as a significant part of localization, the whole process implies any changes in a game.

The main task of localization is creation of an enjoyable, non-confusing play experience for the user by paying heed to their unique cultural context while being faithful to the source material [6].

The following aspects are supposed to cause the most difficulties at the translation stage: proper names, cultural references, word play, untranslatable phrases and specific word combinations (collocations, slang, set expressions).

To study the difficulties related to the aspects above we used such methods as researching of resources (including videos with playing process, articles), scanning whole Russian and original versions, text analysis.

Neurolinguistics and psycholinguistics take an essential part within this research work. According to Tatiana Chernigovskaya's interpretation, neurolinguistics is a section of psycholinguistics, however, it has more specific methodology and the object description. Neurolinguistics regards the connection between the speech, language and the brain activity. It studies the features of translation as well.

One of the most interesting examples can be shown in the Tolkien's work «The Lord of the Rings: The Fellowship of the Ring»:

Original: «Boromir smiled».

1. A. Kistyakovsky, V. Muravyov: «И Боромир, превозмогая смерть, улыбнулся».

2. N. Grigorieva, V. Grushetsky: «Тень улыбки промелькнула на бледном, без кровинки, лице Боромира».

3. M. Kamenskovich, V. Karrik: «Уста Боромира тронула слабая улыбка».

This fragment shows how different the mentality, the style and the reader's perception are.

Neurolinguistics research is carried out in all the significant linguistics fields: phonetics, phonology, morphology, lexicology, syntax, semantics.

The most significant branches used in this article are:

1. Morphology considers the structure organization and the storage of words in the mental lexicon, how the vocabulary is organized in brains. The part of speech, the form of the word and the internal structure are being explored by morphology.

«Uncharted» is translated as «Не отмеченный на карте». However, the translation is too long and grammatically incorrect: in English the gender of adjectives and participles cannot be defined without a noun. «На картах не значится» seems to be a better Russian name for this game.

«A Thief's end» is the last part of the franchise. Nathan Drake's adventures finish, he is not a thief anymore. There is one more interesting detail: Rafe Adler, the main antagonist, confirms that he is a thief despite being extremely rich. In the end he dies «swimming in gold», as he wanted.

«Путь вора» is the Russian translation, which is a bit confusing. Apparently, we cannot translate it as «Конец вора», it is senseless. «Так умирают воры» seems to be a better alternative for the game title. Firstly, such a title is provocative (good for marketing), so the gamers would react immediately. Secondly, this title allows us to understand the principal idea taken from the last part. In the end, we see 2 dead pirates (who are thieves), dead antagonist (who is also a thief), and the dead thief inside Nathan Drake. This, in turn, is the reference to the last 22<sup>nd</sup> chapter in the game, which has the same title as the whole game. The localisers translated the title of this chapter exactly as «Так умирают воры», so in Russian, the title of the whole game has to be the same.

2. Lexicology studies the word or word equivalent and its meaning. It is specifically significant in translation phrasal verbs and slang in our work.

The phrasal verb «to hang on» is: 1) виснуть 2) держаться, цепляться [4].



It is obvious that Nate «повис» but here is a phrasal verb which has to be translated as «держаться». At least, the tense is wrong: «I'm hanging» is present continuous; «Я повис» happened in the past. In general, this dialog has to be translated as: Держись! (E), Да держусь я! Держусь! (N).

«In like Flynn» is a slang phrase which means «having quickly or easily achieved a goal or gained access as desired» [2,3]. This phrase was translated into Russian as: «Поймай удачу, да? Ай да Флинн. Круто!».

Unfortunately, this expression has no analogues in Russian, so it is impossible to translate it saving the main idea. Translating this phrase, we have to save the name Flynn because Nate turns to a character with a name Flynn in this episode. In the Russian version we have such a translation as: «Ай да Флинн!». We could suppose it is the reference to the famous Pushkin's expression «Ай да, Пушкин! Ай да, сукин сын!». It seems to be a really good decision, as it is a part of the Russian culture.

3. Syntax investigates the rules and processes governing sentence structure in a language. It influences on the interpretation of the meaning of the sentence, that is, the semantics of the sentence. However, there is a psycholinguistic evidence based on electroencephalography that suggests that syntax and semantics are processed in human brain independently of each other.

There is the episode, when brothers are at the auction in Italy to steal the St. Dismas Cross. After Sam knocking the waiter out, he takes his pants.

The joke in this episode is based on the Latin phrase «Si fueris Romae, Romano vivito more; si fueris alibi, vivito sicut ibi» [4]. That means «If you are in Rome, live in the Roman way; if you are elsewhere, live as they do there». Syntax and semantics help to understand the sense of the whole sentence and what the speaker means.

Indeed, most people in 2015 wear «skinny» jeans but Sam does not know about it as he has been imprisoned for 15 years [5].

***The Original and the Russian translation of the dialogue***

The original version	The translation
Sam: Yeah, these pants are just a little bit too tight. - Брюки немного жмут.	Сэм: Хорошо, но штаны немного тесноваты.
Nate: Well, that is the style these days. - Ничего, так нынче носят.	Нейт: Ничего, так нынче носят.
Sam: Really? Well, when in Rome... - Да? Ну что ж, в Риме...	Сэм: Ну... в Риме поступай как римлянин.
Nate: Ha. 'Cause we are in Italy. - Ха. Потому что мы в Италии.	Нейт: А, потому что мы в Италии. Смешно.

In order to save the joke, it is possible to translate it verbatim as it is presented in the left column of the table above. Having studied the features and mistakes, that is possible to give some recommendations, taking into consideration the peculiarities of the neurolinguistic theory and the influence on the perception of language signals by the brain. They are as follows: to improve the translation quality and to avoid the inaccuracies, the translators should be deeply immersed into the game plot, be aware of the characters and their relationships, to understand the context and be able to draw parallels and find analogues for some names or collocations in their native language.

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### **ENVIRONMENTAL SAFETY AT THE INTERSECTION OF SCIENCES**

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We face ecology on a daily basis, we are simply inextricably linked with it. Everything that surrounds us and interacts with us is ecology. The environment is of the greatest importance - air, water, soil are its fundamental components. With the aggravation of the ecology, the blow comes to us, we, as living organisms, feel the most serious harm, and this poses a danger to humanity as a whole. Therefore, there is such a direction as environmental safety, which helps us care for the environment in order to prevent global problems. Environmental safety includes all sciences that are intertwined with each other. In this respect, we should consider the notion of environmental safety.

Ecological safety can be characterized as a set of statements, various processes and measures that makes it possible to ensure ecological balance in the environment and does not lead to vital damage to the natural environment and humans. In addition to that, it can be the process that provides the protection of the vital interests of the individual, human society, nature, the state and all mankind from serious or minor threats. Such threads are usually caused by natural or anthropogenic impact on the environment [1].

The main purpose of this article is to analyze the substantial impact of environmental safety in different sciences.

The objects of environmental security include the rights, spiritual and material needs of the individual, the natural environment and resources or the material basis of social and state development [1].

The system of regulation and management, that can predict, prevent, and, sometimes, avoid emergency situations, is included in the system of environmental safety.

The problems of rational nature management and environmental safety are closely related to the socio-economic development of society and are conditioned by it, they are also related to issues of health protection, the formation of positive living conditions and opportunities for natural reproduction of the population in the present and future generations.

The main sources of environmental hazard include pollution of air, soil, water, food, exposure to electromagnetic radiation and noise.

The main goal of environmental safety is to achieve significant success in the creation of favorable living environment and comfortable conditions for the life and reproduction of the population, as well as the protection of all natural resources and biodiversity, and preventing the planet from man-made accidents and disasters.

The concept of environmental security can be perceived as a complex system of various views, principles and priorities, as well as legal, economic, political, technical, administrative, scientific, epidemiological and educational actions based on them, aimed at formation of favorable and safe living conditions for many generations.

The nature of the concept is based on the key idea of predicting, preventing and compensating for damage caused to the environment, health and property of citizens through pollution, damage, destruction, irresponsible use of natural resources, destruction of natural ecological systems and other offenses [1].

Thus, Russia is on the 3rd place in terms of emissions and on the 74th place in terms of environmental cleanliness in the world [1]. The main reason for such a poor state of ecology in our country is industry, or rather emissions from factories. Also, not a small role is played by the irresponsible and careless attitude of people to the environment.

To improve the environment in our country, various measures are being taken, starting with volunteer clean-up and ending with laws. However, not only knowledge about ecology as a science helps here, but also knowledge of other sciences with which it is closely related.

Ecology is interconnected with many other sciences precisely because it studies the organization of living organisms at a very high level, explores the connections between organisms and their habitat. Ecology is closely related to such sciences as biology, chemistry, geography, physics, epidemiology, philosophy, medicine, economics and law [3]. Let