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# **THE PROCESS OF VIDEO GAME LOCALISATION**

Case Study of Metro Exodus

# ABSTRACT

Valerii Kucheba: The Process of Video Game Localisation: Case Study of Metro Exodus  
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The requirements for diverse media projects increase every day, following technological progress. One of the main points is the adaptation of video games for various target cultures. A video game is a highly constructed cultural artefact containing audiovisual components, specific mechanics, narrative elements, and several other important features. Correspondingly, these projects are exposed to adaptation for further distribution and use in the target market. Consequently, exploring such a multi-faceted operation as localisation has a significant impact on general comprehension of its structure and applicability. Moreover, the investigation emphasises the value of the proper transfer of diverse forms of culture-related realities.

This thesis investigates a video game as a product of adaptation, therefore diving into the technological procedure of localisation. In order to discover and unfold the stages and peculiarities of applying localisation, this study provides different assumptions, ideas and templates on how people can understand the process of localisation and what phases it can imply. Moreover, it is essential to perform the complexity and contestability of changing the game elements. Metro Exodus was examined with a qualitative investigation, which was utilised from the perspective of formal analysis.

The analysis reveals the superiority of textual alterations compared to other types of modifications. Consequently, the main difficulties associated with the transfer of cultural-specific aspects from the original (Russian) to target (English) version of the game were identified as well as suitable approaches to their solution based on the derived cases, which illustrated both interesting and debatable translation solutions. The selected game is significant for this study because it possesses a simultaneous process of development and adaptation procedures. In addition, the absence of a distinct localisation unit, which commonly aims at adapting a project according to the requirements of a particular target market was identified as a critical and unique feature of *Metro Exodus*. The investigation of such localisation alternative caused enhanced attention towards characters' cues and other game-related texts.

Keywords: Localisation, adaptation, video game, culture, interpretation, translation, Game Studies, Metro Exodus, text, linguistics

The originality of this thesis has been checked using the Turnitin Originality Check service.

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# 1 INTRODUCTION

A video game is a modern cultural product, reflecting either new technological trends or various aspects of a social community. A particular game can be represented with different versions of itself, that are specifically designed for diverse target markets. However, the depth of adaptational interventions is determined by time, resources and developers' attitudes and expectations of the project. Moreover, surveys such as that conducted by Chandler and Deming (2011), have shown that localisation is an inherent aspect of successful game distribution. The complexity of game modification is conditioned by the distinct structure of localisation. This is why this operation requires a more detailed observation.

The process of localisation has been long established as an important topic in the field of digital product adaptation. A video game is a computerised project, consisting of audio and video components. Accommodating a certain game to various cultures involves several aspects, according to which the project is reviewed and modified. The main point is that video games often contain a diversity of cultural and linguistic elements, that are comprehensible for the developers, but may be controversial and complicated when encountering the localisation of the project. Moreover, theoretical background in this particular area provides a number of ideas and concepts, that are sometimes contradictable but valuable while observing localisation from different perspectives. Definitions, strategies and classifications engaged in the area of linguistics and video game adaptation demonstrate controversy not only from the theoretical point of view but in practical applications. The background analysis of the phenomenon by Bernal-Merino (2014) has shown that "almost everything in a video game is open to change in order to meet the needs of specific territories "(p. 106). In addition, he provides an exhaustive amount of information on interpretational processes in the game sphere. All-round insights are aimed at conveying crucial ideas and points about translation and its connections with the localisation process itself.

The research tends to focus on textual data interpretation rather than on every single area of video game localisation. Bert (2000) suggested that adapting a game culturally and linguistically is commonly conducted for distribution in a specific area. Despite this, the study encompasses the whole structure of the game adaptation mechanism, including audio, video and textual elements with a lot of root subdivisions on each phase. The initial draft on game localisation, provided by Honeywood (2011), represents the process in an

optimal and sufficient way. This thesis also uses Honeywood's (2011) classification as a fundamental background which will be structurally modified according to the needs of this study. Video game adaptation is a flexible and uncertain operation. Determining a specific structure of the operation is essential in order to avoid confusion and inconsistencies between the diversity of alternative localisation classifications. After a theoretical examination of the major process and outlining the suitable concept, the flow will concentrate on the actual data, which will serve as material for analysis. Applied alterations worth deeper examination because they are based not only on drawbacks and inadequacies of the technical side of the project but on a diversity of cultural, semantic and linguistic inconsistencies. Texts are closely connected to other sections and commonly visible and easily accessible in video games.

Determining the concept of translation, it is possible to come across the idea that the process of video game interpretation would not be overly different, compared to other types of translation (Bernal-Merino, 2006). In fact, a video game is an audiovisual product and it is closely connected to the interpretational processes of media components, involving graphical, sound alterations and dubbing; due to these similarities, some researchers have argued that the process of translating videogames can be seen as similar to translating films (Agost & Chaume, 2001). The main aspect which separates video game translation consists of interactivity with the target user. Consequently, the concept of textual translation in the frames of this study is showing up to be perceived as a complicated operation due to the combination of diverse contextual and terminological areas. Audiovisual elements, linguistic peculiarities of textual transformation and especially software translation will be taken into account as a video game is primarily a computer software product (Bushouse, 2015, p. 17). Textual analysis and exploring translational decisions may relate to reviewing the material in linguistic scope. The theory of translation is able to provide a lot of insights into methods, tips and strategies for interpreting a particular element. Molina et al., (2004) introduced a classification of translation transformations that are commonly applied in interpretation of text. The key problem with this source is that categories are flexible as well as the structure of localisation. Specific approaches can be more generalised or concrete. A more significant point is that in some cases these terms denote various meanings and are interpreted diversely from various perspectives. Once again, concerning other sources would make sense in terms of either organising a sustainable and suitable classification of translation techniques or demonstrating the comprehension of these strategies from other perspectives.

One of the aims of the thesis is to introduce insights that indicate the fact that the localisation of video games is not only translation. Surely, localisation implies translation but not vice versa. Another significant point is to demonstrate the fact that the localisation process, outlined by Honeywood (2011) is a flexible entity and there is no concrete or proper structure for applying such an operation. In order to provide a better comprehension of the process, the analysis will be conducted around the video game *Metro Exodus*, developed by *4A Games* and various translational techniques involved in the adaptation of this project. Categorisation of textual decoding, provided by Molina et al., (2004) will act as a keystone and be further adjusted in compliance with the demands of analysis of in-game words and sentences. The goal of such manipulation is to state the absence of universality among the diversity of projects, which could be fixed by including specifics and extra transformations, introduced by other researchers. Game testing and formal analysis will be applied as the main tools for extraction and further data examination. It is worth mentioning, that formal analysis will act from the linguistic analysis perspective, observing adjustments of text in such game elements as subtitles, sound cues and textures. In addition, the project will be explored for the presence of any technical drawbacks occurring during localisation. Visual elements of in-game surroundings are also exposed to examination for the purpose of detecting graphical modifications (e.g., signs, symbols, pictures), caused by the incompatibility of cultural realities.

The essence of these approaches will be preliminarily discussed; therefore, the reader will get insights into when and why these translational techniques are utilised and how methodology is executed. In order to support theoretical knowledge and illustrate differences between the original and localised versions of the game, some graphical material will be implemented, which appears to become more effective in terms of readers' comprehension. The study possesses textual alterations as the largest and most significant area of the whole procedure. The detected data is expected to perform a degree of controversy and complexity when applying in-game changes. Providing sameness (Bernal-Merino, 2014, p. 106) and transferring the semantic element from one cultural layer to another have always been of great interest and indicating a specific decision would not only perform the alteration as a final result of the localisers' decision-making but will also introduce several comments on how and why the shift emerged. Furthermore, constructive suggestions and potential adjustments will be attached to particular cases.

## 2 WORLD OF VIDEOGAMES: ASPECTS AND PHASES OF LOCALISATION

The theoretical background of the translation itself will be introduced as an element of the localisation investigation. The whole theory chapter focuses on the entire adaptational process as the research does not imply an ordinary transformation of text, but a complex technology and culture-related interpretation. Next subchapters will concentrate more deeply on stages and the data gathered may come useful in outlining a new plan at the end of the chapter. For this reason, it was decided to familiarise the reader with the structure and peculiarities of localisation, moving through the translation stage as a segment of a greater operation. Subsequently, the flow will smoothly move through methodology directly to the practical section of the thesis where the analysis of textual translation is performed.

### 2.1 Video game perception

Nowadays, a great number of *video games* are controlling the entertainment sector, which is a quite popular topic of discussion in contemporary society. They have driven society into other levels of recreation and time spending. Games have definitely innovated the lifestyle of the world. Commonly, referring to the term *game* is supposed to raise some thoughts and ideas of a frivolous and entertaining activity, aimed at fulfilling the leisure time with a fun aspect. However, it is not the only way of identifying such a phenomenon.

Various individuals perceive the idea of a video game differently. This fact instigates the emergence of numerous definitions and concepts of how this digital product is observed and what aspects are pivotal for proper comprehension. Nevertheless, every single denotation may introduce unique and distinctive features but still perform opposite aspects and differences. Caillois (1961/2001) draws our attention to playing games as “uncertain, unproductive and free activity (playing is not obligatory), circumscribed with space and time limits” (pp. 9-10). There is no point in denying the fact that one of the main targets of a game is to provide entertainment and leisure opportunities which may be defined as an unproductive activity. It could be possible to link Caillois (1961/2001) assumption to the sphere of digital games. Although, his definition as a general point of view is vulnerable to criticising because games are not always supposed to be inefficient in terms of self-development and this is not the only way of experiencing a particular project. In contrast to Caillois, Jensen (2013) argues that:

Video games are valuable not only as socio-cultural artefacts, but as objects of study that reveal the centripetal and centrifugal forces inherent in culture, language, and, consequently, video games. More specifically, playing video games and examining how centripetal and centrifugal forces interact can teach us about unspoken societal or cultural values. (p. 77)

Experiencing a specific game project performs opposite purposes. When investigators play a videogame, they keep an idea of what research may be conducted on it. As was mentioned above, video games introduce a vast spectrum of advancing and educational opportunities even regarding the fact that they are likely to be unproductive activities sometimes. Moreover, the leisure mode of gaming is conducive to the introduction of an educational aspect during the session and this can sometimes be inconspicuous for the player. Previous research has established that video games, despite implementing severe content still can assist and give a possibility of improving the cognitive and emotional capabilities that will help them with academic performance (Chang et al., 2009).

In broad terms, a video game can be defined in frames of a certain field. This is one of the reasons for such a definition not to be wrong or correct. The term is used in different disciplines to mean various notions. For example, there are some assumptions that a video game is an art product as it includes audio-visual components and is created by one or several authors. According to Sal'nikova (2014), the world has already seen several attempts to define computer games as a distinct art form, along with theatre, cinema, music and other forms of culture. At the same time, it is a digital object, designed with help of electronic resources. According to Bernal-Merino (2014), a video game can be perceived as a “multimedia interactive entertainment software” (p. 98). Consequently, there are several similarities between the film industry and electronic game development, as “a videogame is a game which we play thanks to an audiovisual apparatus and which can be based on a story” (Esposito, 2005, p. 2). In fact, an audiovisual apparatus refers to any computerised system, that is required for playing a video game. The correlation between game and art is interesting because we can suggest that this type of digital product attains the area of cultural contact with the user, represents a certain story or plot and even introduces insights into behavioural frames, rules and other crucial aspects. In simple terms, the game equips the player with the perception of itself and the person is not usually supposed to possess any preliminary knowledge or awareness for satisfactory and comprehensible play. Regarding Sal'nikova (2014) suggestion on video games, a broader perspective has been adopted by Rouse (2004), who argues that “gameplay is the component of the computer games which is found in no other art form: interactivity. A game’s



gameplay is the degree and nature of the interactivity that the game includes” (p. 1). The statement seems to be a bit outdated, and surely that contemporary variations of art can provide an interplay opportunity. Furthermore, in a study investigating video games, Tavinor (2008) reported:

Thus, X is a videogame if and only if it is an artefact in a visual digital medium, is intended as an object of entertainment, and is intended to provide such entertainment through the employment of either rule and objective gameplay or interactive fiction. (A Disjunctive Definition of Videogames section, para. 5)

I would rather point out that a video game is not necessarily an object of entertainment. It is designed in a way to deliver it but maybe also produced for, let’s say, educational purposes.

Another option is to observe a video game as a consumer product, designed by a manufacturer, presented on the market, and aimed at making a profit. In this case, a game final commodity of the process of developing a digital entertainment facility. The industrial sector equates a video game as a regular item on a conveying belt. However, it is worth mentioning that despite the fact a digital game is a genuine object for selling, it occupied and is still occupying a vast area of the contemporary media entertainment sphere. This is a marvellous issue, bearing in mind the fact that video games and *ludology* itself (the science of studying games) are a quite young trend by comparing it to literature or film production. The proceeds from video game distribution reached a so high level, that now, in terms of economic profits, they compete with such established and avowed sectors as filmmaking or television. (Sotamaa, O. & Švelch, J., 2020) Pondering and gathering various general definitions of a video game phenomenon can spark a thought that the definition of the same appearance but from various perceptions can lead to some controversies among ludologists.

The incongruity of a video game phenomenon generates a ramification in ways we comprehend every single project can more or less concern a particular concept or idea. Sometimes, the game appears somewhere in the middle of these various sites and becomes a combination of these areas where the term video game is applicable. Overall, the crucial idea for studying video games is encompassing a versatile approach that plays a key role in obtaining a complete understanding of the issue and in case of this study, video games are primarily examined as a polyhedral cultural entity.

## 2.2 Video game as a product of intercultural adaptation

As discussed earlier, a video game performs some similar aspects with other media products as films, series, and other audiovisual projects. Obviously, any digital commodities might not be understood and perceived correctly without a proper target adaptation. Translation and voiceover are common terms when talking about film localisation, and the same relates to the sphere of video games. This case is supported by Anisimova (2018), who claimed that:

The video game is an audiovisual product, like a movie. That is why game translation is similar in many ways to film interpretation. At the same time, there are many distinctive features since the fact that a video game is also a software product, which makes translation similar to software localisation. (p. 83, translated by the author)

However, the process of the whole game essence transfer is trickier than it seems to be at first glance.

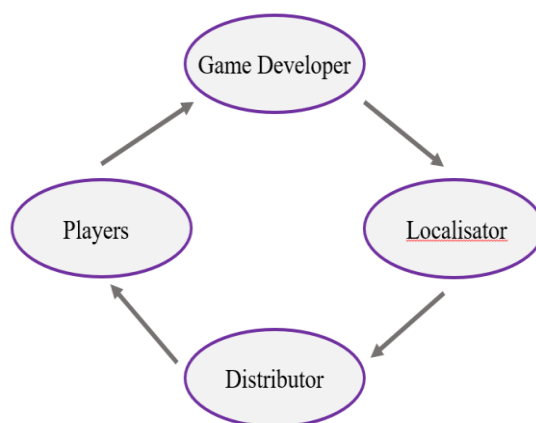


Figure 1. The rough scheme of localisation essence

From the Figure 1 we can see that the process is cyclical and can be described with a few main phases. However, these data must be interpreted with caution because it is not the only way for the operation to proceed. One of the aims of this paper is to explore the ideas and thoughts about the issues of the process, provided by a variety of researchers. Comparison and analysis of these concepts will possibly assist in designing a more detailed and extensive scheme of the operation. But still, viewpoints and assumptions are diverse and the result of combining the material will also lead to different solutions.

In fact, the adaptive process of computer games requires various techniques and skills. Moreover, it is a time-consuming complicated process as localisations are aligned with

the task to obtain and perform extensive knowledge in a diversity of areas. As the video game industry is advancing and progressing permanently, the demand for interpretation and cultural adaptation is also increasing. The key problem with comprehension of video game adaptation is that it may be understood by the public as textual alteration only. Words are not the only component to be changed for game localisation, but it is still of great significance. Perhaps the most serious disadvantage of script modifications is due to the limitations of transferring every single cultural subject, belief, or mindset between several diverse realms. However, investigating the process of customisation a game to a specific area and cultural layer, is based on a proper translation and is believed to be a remedy of linguistic adjustment, functioning with the textual side of a specific case and following the plot of a certain project.

Customers are expecting the final product (video game) to be as meaningful and senseful in localised versions. The important point is that the factual adaptation of a video game is far not only about switching the letter combination component. The issue is to spot other pivotal aspects that potentially fall under modifications; graphical or sound alterations are also on the frontlines of a successful video game transformation. Consumers' satisfaction emerges from a qualitative interpretation, where the text, visuals and audio are adopted explicitly for representatives of different nationalities individually. In the next section, I will distinctly examine the concept of localisation and how it is perceived.

## **2.3 The idea of localisation**

The term can find usage in a diversity of disciplines. However, discussing the case from perspective of video games area, the process can be titled as a project adaptation to different cultural layers, which implies a variety of aspects, equivalent to analysis and translation of the textual material, visual transfiguration, and examining audio issues.

By drawing on the concept of *localisation*, Oxford English Dictionary (OED) provides insight into the word, where the basis is *locale* – the place, where some happenings occur. Locale can be described as an issue, that “is mostly used in a technical context, where it represents a specific combination of language, region, and character encoding” (Esselink, 2000, p.1). Localisation is one of the most significant and complex structural transformational operations. One of the preliminary points of this study was describing localisation not just as a translational process, but as a complex process, with technical interventions

and *semantic*<sup>1</sup> adaptation. In 2015, Saeed published a study in which he defined semantics as a “study of the meanings of words and sentences” (Chapter 1, para. 1). This investigation discussed the discipline in terms of linguistics. The process of meaning adaptation implies transferring the message from one culture to another. Surprisingly, the textual aspect seems to dominate in the whole system of video game adaptation. Therefore, I spotted the closest and most descriptive definition for the concept of localisation, especially in terms of changing words. Localisation is defined by Esselink (2000) as:

A process that implies linguistic and cultural transformations of the product, aimed at an audience of a certain area (country, region, etc.) where the product will be used and sold; the translation is the transformation process of written or spoken text of one language into another. (p. 3)

Recently, little attention was paid to the role of linguistic alteration and the main focus was on the semantic aspect and cultural cases. As indicated previously, the textual area seemed to be carried out by another field of game adaptation. The case is supported by Chandler and Deming (2011), who were also examining localisation and explicated it as a personalisation, which is made to conform to the diversity of different cultural requests and precedencies. As was mentioned in the previous paragraph, the video game area obtains several connections with film production. However, we are not able to claim that the adaptive processes are the same due to one single factor – interaction. This is the main distinctive aspect of that particular case. In 2014, the researcher Miguel Bernal-Merino popularised the term *TMIES* (translation of multimedia INTERACTIVE entertainment software) to describe the discrepancy between *text-only products* (films and series can be referred to this section) and *multichannel products* (video game as a bright representative); the term was introduced as an option of determining the research object and its primary peculiarities (p. 6). Regarding the definition above, it is possible to notice that a video game is a software project, which performs the process of interpretation as a similar aspect of software localisation.

Taking into consideration the general issue of product adaptation, it is possible to come across *internationalisation*. Localisation is factually a way of interpreting the language essences into other languages in frames of a certain game; while comparing internationalisation and localisation, the second option is targeted only at language alteration whereas internationalisation is aimed at interpreting culture-related aspects and

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<sup>1</sup> According to Merriam-Webster (n.d.), semantics is a “historical and psychological study and the classification of changes in the signification of words or forms viewed as factors in linguistic development”.

minimising costs and time periods of localisation from the developers' side (Chandler et al., 2011, p. 4). Chandler and Deming (2011) are separating the essence of video game adaptation into two generic parts: linguistic and technical. In other words, the adaptation of the project starts with a full analysis of textual material and initiating the translation procedure. Afterwards, the obtained data is moving towards technical alterations and cultural shifts; these modifications finally deliver the idea, that the game was designed specifically for representatives of a target audience. By contrast, Bernal-Merino (2014) claimed that "non-linguistic issues need to be addressed in the localisation process" (p. 80). Personally, I used to examine localisation as a marketing tool for product modification and distribution. The case is that semantic transfer of the language and the cultural adaptation of the game itself are closely related features. The linguistic issue of meaning delivery and the search for the most appropriate and closest interpretation of a specific word or phrase made me think of the fact, that the cultural adaptation of controversial and sometimes unacceptable game elements is falling under one of the categories of localisation. To better understand the significance of correct script interpretation, it is important to perceive this "pragmatic adaptation of the text as a process of making certain amendments to socio-cultural, psychological and other differences between the original and translated text" (Proshina, 2002, p. 239, translated by the author). These social, cultural, psychological, religious, and other difficult and crucial materials for the correct translation are also situated in other elements of video games and the interpreted meaning directs at excluding any offensive or instigating aspects. These aspects of product adaptation will be discussed on the following pages.

## **2.4 Cultural Shifts**

The whole significance of transferring the meaning of any essence from one culture to another is based on the principle that matters may be allowable in one culture but in another may be offensive or have a meaning other than which the localisation specialist tended to deliver. In fact, this is the ideology of the adaptation process, to transfer the meaning in any form though it would be at least clear or equal to the source. Players from different societies possess various cultural values, expectations and requirements. These aspects are based on historical events, political situations, religion and society, which commonly performs a great influence on all fronts. Thus, in the case of an international adaptation, localisation will emerge as a difficult interdisciplinary objective. Moreover,

localisers are supposed to come across unfamiliar foundations and cultural values in order to avoid undesirable intercultural collision and confusion.

There is a variety of types of confining elements, that need to be contemplated before proceeding with the adaptation. Most of these situations apply to different controversial areas but still may be more prominent in a single domain. For a better comprehension of these occasions, some examples will be illustrated with relevant occasions in video games.

- Religion. It was always a tricky area to discuss and probably, an easy option is to avoid using any religious symbols and audio material that may be misinterpreted. In the sphere of video games, controversies about religion usually occur because of the visual representation, events and acts, that have a place in the game world. One of the games, that happened to be convicted of unacceptable relations with religion was the *Resistance: Fall of Man*. One of the in-game locations is a detailed reproduction of the Manchester Cathedral. This is a *first-person shooter* (FPS) and the game itself is quite severe and implies violence as a part of the gameplay. Representatives of the Church of England expressed their discontent regarding the combat in the cathedral. In response, the publisher made an apology, but the location was not excluded from the game, explicating that the project is fictional. This case was exemplified by Chandler and Deming (2011) in the *Game Localization Handbook*.
- History. It is not a secret that video game developers tend to change the historical credibility, by implementing fictional storylines and modifying historical events. This is a normal practice in the industry, and it can increase the interest towards the project. However, sometimes history may confront the reluctance of being plausible. *Age of Empires* was banned in Korea. The reason is that it has an episode, where the Japanese forces intrude on Korea and capture the Korean Peninsula without much effort. While historical events in the game are more or less accurate, Korean authorities estimated this occasion as disgraceful for their nation and suggested modifying the game. Finally, the update was introduced. The case was analysed by Batchelor (2018) in *Gameindustry.biz*. Another famous example of historical adaptation, including political elements, is the *Wolfenstein* game series. The German Penal Code prohibits all types of Nazi symbols propaganda. The only way these may be performed are films or books in frames of art or science,

and even then, these elements are not excluded in order to save historical credibility. Remo (2009), (as cited in Bernal-Merino, 2014) correlates this occasion with differentiation in audience types and societal systems and points out, that “Wolfenstein, where all references to Nazi Germany icons, gestures and paraphernalia, as well as the gore usually found in first-person shooters, were removed from the German version” (p. 92). This particular issue was experienced by me, testing the version of the game, adapted for the Russian market, where the original Nazi symbols remained unchanged. However, as was already mentioned, several results of *Wolfenstein* adaptation and a more detailed discussion are represented in Figure 4.

- Violence. The policy of including or excluding any violent aspects and elements of the game depends on the area of distribution. Obviously, the Governmental influence can utterly change the game if it obtains some inappropriate issues for a certain region. As noted by Holmes (2021), China is one of the most noticeable examples of transforming video games (usually the visual part). There are still debates about the fact that Chinese censorship is spreading around the whole game industry and excludes any violent elements, like skulls, blood and other similar elements. Chinese authorities claim that introducing this kind of elements into the game will provide a negative effect on the moral condition of people. That is why “exposed bones, skeletons, and realistic-looking blood need to be avoided, and to appease censors, video game companies will add flesh to bones and change the colour of blood from red to black” (Schlitz, 2021, para. 2). Fixing any death-related symptoms of video games did make sense as even *Blizzard Entertainment Studio* was compelled to coat in-game characters in order to hide the bones. Skulls are also exposed to alteration by something else and even the death of the character is not actually a demise. For example, the Chinese version of the original *PUBG mobile* video game is titled *Game for Peace* and the player is not perishing but surrenders, waves his hand and then just disappears from the battlefield (Homes, 2021). Obviously, not every single game was incriminated in usage discrepancy for the Chinese areas but still, these cases had a place and are worth considering while mentioning the governmental attention towards the gaming industry.

- **Formatting.** It is also worth mentioning that intercultural changes may initiate transformations in units of measurement. Pham (2019) suggests that using various types of them, different societies are not aware of their value. Temperature, volume, weight, distance, and length are supposed to be remembered during the process of adaptation. So, the scale needs to be transferred to the target culture in an already converted form. Mathematical numbers and dates may also perform the various format. Defining, whether a 12 or 24-hour time zone is applicable. Date elements are also diverse in different countries (e.g., the US has an *mm-dd-yy* format, whereas Canada operates with the *yyyy-mm-dd* date form).
- **Associations.** This section is significant in terms of social and moral foundations comprehension, and these are unique for each cultural layer. In fact, a specific object in a certain society can act not only as essence and representative of its' own sense but as a bond that leads to wider perception in the community. A trivial example of such an association occurred in China. According to Svensson (2021), the white colour in this country is a funeral attribute. Chinese society avoids wrapping shades of white packaging and even brides during the wedding are supposed to wear a red dress. However, for Europeans, the mourning colour is black. This particular case may refer the visual modification of the game and for the correct interpretation of the internal situation, localisation specialists have to be aware of analogous context.

The cases, like those mentioned above, commonly emerge while a certain video game is in the process of distribution on different markets. They are significant in demonstrating drawbacks or even lack of localisation of a specific project. It is important to understand that just few cultural shifts were introduced and it is possible to face other unconsidered localisation aspects as racism, age ratings or representation of drugs and alcohol. Categorising them is a flexible process and the final outline depends on the individual comprehension and purpose. Some of them may be excluded, others can be separated into subdivisions in order to provide an expanded overview of the pivotal components. So, the whole spectrum of cultural cases is not limited to the above-mentioned criteria, there is a huge space for designing diverse versions of cultural shifts. There is an unambiguous relationship between *culturalisation* and localisation (Honeywood, 2011). One of the limitations of this explanation is that Honeywood's game *localization draft* branches the process of adaptation separately into culturalisation and localisation. The first one is located before the genuine process of localisation and aims at exploring and processing the pivotal



culture-related processes, like those mentioned above. These are the fundamental elements of the culturalisation section.

## **2.5 Localisation procedure**

Examining video game localisation as an element of the productional and distributional process arise the question of what it contains and how the whole system is operating. Phases obtain a crucial link to each other and further actions of one adaptational section are based and highly dependent on modifications and outcomes of the previous unit.

Obviously, numerous types and divisions of localisation are applied everywhere and these are often flexible. Organisations are free to produce their own process with specific requirements and phases or borrow the template from other sources and modify it. There are no strict rules or requirements on how to attain the most correct and appropriate interpretation of a video game and it would be beneficial to take a localisation template or standard for this study. Nowadays, a quite popular standard of the process is used and it is provided by the *International Game Developers Association* (IGDA). It is one of the best-known independent video game development communities which provides competitive opportunities in game production and localisation. The standard is not an obligation, but it is more cognate with a tutorial or manual, containing a helpful structure and useful tips. To determine the section ranking of localisation, Honeywood (2011) provides an insight on video game adaptation steps, including: “familiarisation, glossary and style guide creation, translation, voice over recording, linguistic quality assurance, master up and sign off” (p. 3). In order to describe every single level of the process, I will follow this draft with some customisation introduced. Either the aforementioned or newly embedded phases will be discussed.

### **2.5.1 Familiarisation**

Acquaintance is a fundamental property of meaningful localisation. It is possible to draw a parallel between video games and film, where specialists are highly recommended or sometimes even required to familiarise themselves with content, assemble some data and insights about the project to provide a relevant and appropriate translation (Honeywood, 2011). In video games, localisation experts familiarising themselves with the complex game world or even a full franchise in the precise time limitations can be challenging.

According to Bernal-Merino (2014), the procedure of localisation may initiate before the project is completed which generates an obstacle, specified by time deficiency; translators are unable to sufficiently acquaint with peculiarities of the internal world, characters and mechanics as well as experience the unique concept and flow of the game (p. 175). In addition, it is likely that appropriate specialists for localisation assignments are those who possess some knowledge and comprehension in a particular field or expertise. These people are able to pick the most suitable phrase, term or stylistically correct speech. However, inappropriate experts may also be presented and the problem actually appears in the relation to the genuine process. This claim is supported by Bernal-Merino (2014), who argues that the complication of quality securing in the process of localisation is caused by non-competent specialists and their disparaging attitude towards the process of textual alteration (p. 201). In the cases mentioned above, the familiarisation section correlates with composing a glossary with a maximum number of notions that will be further contemplated during the practical part of the localisation. As indicated previously, theoretical knowledge about the world of games and genuine playtesting are significant aspects of delivering comprehension on aforementioned phenomena. However, even if the localiser is aware of the digital entertainment universe and has experience in testing various projects but has not experienced the subject to localise, that may turn into several drawbacks in the quality of video game shift. This view is supported by Honeywood (2011), who writes that:

No matter how small or large the project, translators need to have read or seen the content before they begin translation in order to gain a feel for the subject matter; a minimum of 3 days of playing the game and reading background documentation is a good starting point for small titles. (p. 17)

Playtesting is essential either for familiarising with a specific game or for delivering sufficient comments and clarifications. Depending on an organisation, the roles may vary and the process of acquaintance and glossary composing may be assigned to one person while reviewing the thesaurus and applying terms to the translation is completed by another. Moreover, a video game is sometimes consisted of several regimes of play and may include additional content like *DLC* (Downloadable content). These are additional data sets which are also recommended to be analysed in order not to miss any crucial cases and tips. By drawing on the section of familiarisation, Honeywood (2011) has been able to point out that localisation specialists are recommended to examine additional content and other game components; the continuity of translational procedure depends on the

amount of covered and extracted information which will make the most of composing the necessary data and excludes obligatoriness of constant game referencing.

### 2.5.2 Thesaurus and Style Guide Production

*Glossaries* are guidebooks for translators. Every single aspect that was considered to be important in terms of further adaptation, should be presented on the list. These data sources assist specialists in a way that redirects and concentrates thinking and analysing on a specific content. Commenting on glossaries and style guides, Honeywood (2011) claims that:

Once translators are familiar with the content, the development team should provide the source language style guide and a list of common terms, including pronunciations, for the translators to base their own target language's glossary and style guide on. (p.17)

There is no doubt that an interpreter can deliver consistent work and it will make sense while testing the project. In a study investigating localisation, Honeywood (2011) reports that auxiliary sources need to contain orthographical, grammatical, and punctuational tips and comments on each particular case. Nevertheless, the audience likely to appreciate more the game-related terminology than the very accurate preservation of semantic and grammatical aspects. Users expect the in-game data to be closely connected to the universe and internal environment of a particular game series. These unique terms and concepts supply the indispensable aspect – atmosphere. Therefore, players are usually excited about the proper adaptation.

As a case in point, it is a good idea to observe a situation in which the game performs unique terms. For example, the recipe for successful and satisfactory gameplay in *Counter-Strike: Global Offensive* is believed by players to be based mostly on proper communication and delivering information about the enemy positions. Torubalko (2019) in his blog about players' communication in *Counter-Strike: Global Offensive* reported that “knowing how to communicate is half the battle” (para. 1), indicating the significance of respectable and mutually beneficial communication. The level outline, physical limitations and affordances, time and players themselves are defining the way of playing and “the game's objectives should be clearly communicated but how a player will go about completing the objective should be entirely up to themselves” (Willatzen & Karakurt, 2020, p. 6). The *ninja* (secluded corner, composed of the wall and tall boxes; enemies are unable to detect a players in this position from a variety of other locations), *goose*

(location got this title because of a wall graffiti in this particular place), *car* (a model of an abandoned car, serving as a covering spot) and other terms, depicting a concrete location does not make any sense if taken without context. To get insights into what are these specific locations or acts and how are they commonly referred to by gamers, localisators are supposed to play quite a time and browse topical material, like style guides, to get the comprehension of moves, tactics and strategies and how the positioning is involved in the game flow. A study by Willatzen and Karakurt (2020) involves a deep analysis of level design and its utilisation by players in *Counter-Strike: Global Offensive*. A variety of figures, defining tactical actions and moves, positioning and strategies were introduced in the study. These illustrations help to get insights into the fact that many locations are named according to the specific surroundings, size or position of the element of a level. Regarding the action terms in this particular game, it is possible to explore this particular move as *boosting* which again depends on the context and is described by Willatzen and Karakurt (2020) as an act of letting your teammates climb on you or other players to get on overview of the area that is feasible only in case of piling at least two player characters. Furthermore, to link this type of in-game act to the significance of players' interaction, it is worth mentioning that boosting may be perceived as a means of reinforcing cooperation and a tactical mindset.

Finally, users are composing their glossaries individually and these may vary due to the diversity of circumstances of why a certain player named a specific position and why. This type of miscommunication and disinformation likely turns out to be a stumbling block while playing. In light of overlapping, it had to be acknowledged that these target terms may be referred either to the glossary section or to the familiarisation phase. Before analysing and introducing these new contextual notions, specialists dive into the game and search for these cases; at this moment the process of familiarisation begins. Only after the localiser got acquainted with a certain phenomenon and realised that this knowledge would be sufficient, the whole process is redirecting towards the glossary formation.

It is now understood that thesaurus and style play an important role in the process of translation. Any localised video game would have been more interesting and engaging if glossaries and style guides include lexical units, aimed at specific word transformation for further use in a certain place or group of people. The category is titled *colloquialisms*. Trask (1999) described colloquial speech as “ordinary, relaxed, informal speech” (p. 27). It is believed that colloquial lexical units introduce a certain degree of complexity into the process of translation due to the informality and usage in a specific area, situation or

group of people. However, colloquial words serve as style substitutes and provide expressiveness in a particular conversation and proper interpretation of such lexemes appears to be quite significant.

### 2.5.3 Translation

This section possesses a critical fundamental layer for the whole adaptational procedure – interpretation of text. The actual point is that translation is not only an agent for altering text but a linguistic manufacturing area, emphasising the meaning transfer:

The translation is a mental activity in which the meaning of given linguistic discourse is rendered from one language to another; it is the act of transferring the linguistic entities from one language into their equivalents in another language. (Osman, 2017, para. 1)

Translators come across several linguistic obstacles that need to be sorted out and the process implies a huge mental workload as a specialist is supposed to bear in mind all the peculiarities of original and target languages, be creative and use imagination. Sometimes specialists afford themselves to deviate from accuracy and add or exclude some lexical elements or even change the structure of the sentence or phrase. Siauciune and Liubiniene (2011) examine the translator's way of operating between original and target languages. They have utilised linguistic and comparative analysis to discuss English and Lithuanian versions of the game *Magic Encyclopedia: First Story*. They reported that various types of sentences, glossaries, separated words and the text was not consistent which means that fewer *lexical*<sup>2</sup> elements need to be operated within a specific context. In fact, the lexical meaning of the specific word is commonly presented in dictionaries in the form of description which helps the reader to grasp the essence of the term. According to Siauciune and Liubiniene (2011), lexical entities were interpreted mainly from the linguistic point of view and the translator was not attempting to apply semantic analysis and search for a more suitable and adequate phrase in the target language. Materials were interpreted by detecting simple analogues and common alternative versions, which writers referred to as a theory of Regular Correspondence, provided by Recker and mentioned by Marcinkevičienė (2007). The results of the study, conducted by Siauciune and Liubiniene (2011) were converted into Figure 2.

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<sup>2</sup> Data from the Merriam-Webster dictionary (n.d.) suggests that lexical entity “relates to words or the vocabulary of a language as distinguished from its grammar and construction”.

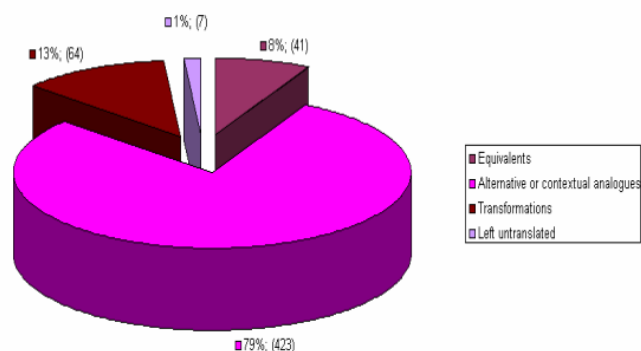


Figure 2. Percentage and Frequency of Regular Correspondences by Siauciune and Liubiniene (2011)

Closer inspection of the Figure 2 shows the total dominance of alternatives and contextual analogues in the localised version. Taken together, these results highlighted translator's unawareness or unwillingness to dive just a little bit more deeply into the peculiarities of lexical units in the Lithuanian language. However, a lack of extra resources and time also stands to reason. Proficient translation could be achieved by applying the creative way of analysing. What else stands out from these findings, is that translational transformations were utilised as much as equivalents used, which indicates the weak approach to the video game adaptation. Finally, it is worth mentioning that a small part of lexical assets was not interpreted, which may cause vagueness and weirdness during gameplay. This issue denotes the consequence of the situation, where the untranslated word is located. The situation is plain when the value of a lexical element is comprehensible due to the context. Conversely, when the word is not emphasised and has no pivotal meaning or necessity of standing in the sentence, the diversity of interpretations in the target language may play a dirty trick. The appropriate interpretation of proper nouns, names of geographical objects and other unique lexical elements is crucial in terms of either immersion or acquainting a player with an unfamiliar culture. It can be also linked to equivalents and analogues as an inaccurate translation or articulation (sound option) may cause experience confusion and tangle in operating with it (Siauciune & Liubiniene, 2011). Nonetheless, textual inclination (literal and technical categories) may vary significantly, introducing additional complexities into the act of translating. Some researchers observe stages of localisation as *text assets* and discuss various alteration options as a diversity of scripts. Following this idea, a detailed examination of the phenomenon by Bernal-Merino (2014) showed that:

Linguistically speaking, software products are multi textual as they contain different types of texts: end-user agreement (legal), hardware-specific cations (technical), manual (pedagogical) and specific to the purpose of the application. In the particular case of video games, they divide into different assets

and file formats: (1) in-game texts (system messages, menus and documentation); (2) art assets (in-game graphics and textures); (3) revoicing (scripts for the dubbing actors) and (4) subtitling (text for the subtitles option). (pp. 83-84)

All the mentioned divisions include the description of what kind of text is subject to further alteration. Visual modifications aim at operating with letter combinations as a part of in-game world internal graphical elements like symbols on the textures. I would also suggest adding a so-called *external text* option to the general structure of scripts as it is not digitalised, it is not an element of UI or in-game visuals. Bernal-Merino (2014) described this case as a *technical type*; it implies “displayed or printed, containing detailed information about the software and hardware required to enjoy the game” (p. 109). This data includes insights on the game plot, a short description of the gameplay, technical recommendations and other categories. It has commonly been assumed that we got used to spotting corresponding data on the back of an information carrier box but now it is also possible to find all the necessary specifications on the digital page of the game. Nevertheless, despite the fact, that a number of authors perceive localisation as a text-related adaptation, I am still sticking to Chandler’s (2005) comprehension of the process as a polyhedral procedure, involving other activities except for translation. In the same vein, Bushouse (2015) suggests that “As a hybrid form of translation, video game translation combines elements of software, literary, theatre, audio-visual translation, and more” (p. 7). In fact, all the material which is subject to localisation transformation is divided into several groups that include the elements, specific to a particular section, whether it be audio, visuals, text or other. This view is supported by Bernal-Merino (2014), who has illustrated the case by Chandler’s (2005) categorisation of assets.

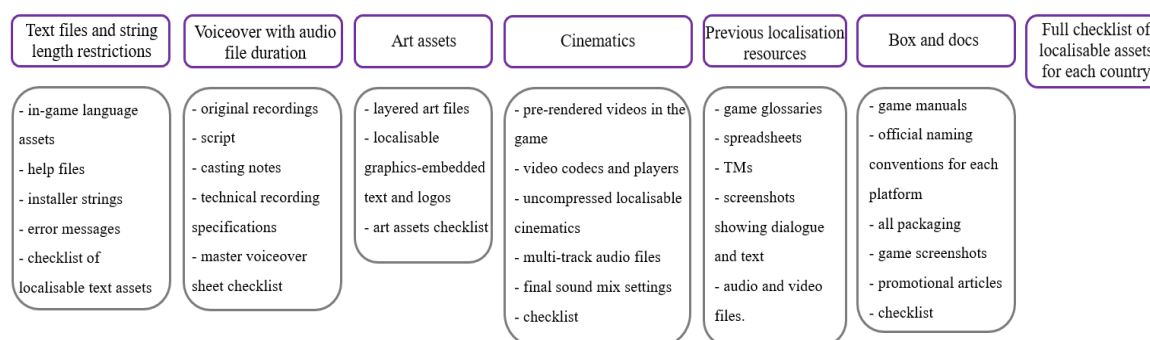


Figure 3. Chandler’s (2005), (as cited in Bernal-Merino, 2014) categorisation of assets, converted into a graphical figure

As can be seen from Figure 3 (above), the textual aspect covers nearly the entire operation and can be detected at any stage of localisation. Furthermore, there is a final checklist point almost in every single unit, which may come useful in terms of generalising and

verifying all the material before proceeding to the next step. The purpose of this visualisation is to observe the target data from a broader view and explore what assets are implied in various sections of localisation. This is an important enclosure to refer to in further subchapters of the investigation.

Considering the presence of final inspection documents in the previous section, it is worth mentioning that the benefit for providing the most appropriate and attractive translation is set within the specific reviewer, whose aim is to read the result backwards and forwards. These people are commonly called proof-readers or editors and they review the coherence and meaning of the work accomplished. Additionally, a great advantage will be provided by an extra linguist, who is the inspector of translational operations, and all the final decisions and amendments are introduced by this particular specialist (Honeywood, 2011). The benefit of having one final reviewer is that this person is not introduced to the whole process; all the alterations, brainstorming and mess that occurred during the act of producing the first version of the localised text, will reach the final verifier (in our case – linguist) just as a ready product. In that case, the person is not supposed to think of better decisions or remember what was done, how were controversial issues sorted out and what was happening in general. There is an almost ready entity and this final reviewer needs to analyse and proofread it. The head is not cluttered with translational bustle and the text is just a combination of symbols which requires final analysis for possible inaccuracies. To my mind, the crucial point is to keep that kind of person away from the seething translational area; this keeps the head clear and causes greater productivity and effectiveness.

Additional difficulties may be caused by fonts and letters of various languages. By way of illustration, we can compare English and German languages. The alphabets are practically similar but the existence of “ß” (double “s”) already introduces an obstruction in frames of technical alteration of the text. Language structures can also perform variation. For instance, it is not common for some Asian languages to use noun numbers and that ought to be noticed by a localiser and compared to the opponent language and based on these insights, put the solution forward (Honeywood, 2011). Declensions are also playing a significant role in a proper adaptation and it produces a kind of a mess if the translator does not possess sufficient knowledge of a target language. As an exemplification, Russian messages are composed and operated due to the number (singular/plural), genus (masculine/feminine/neutral), declensions (1st/2nd/3rd) and cases. So, the phrases “This is his fault” and “I do not blame him” contain possessive (his) and object (him) pronouns respectively. In the Russian language, the categorisation is the same but the word for both



phrases will be also the same “ero” which commonly means “his”. For this reason, it is possible to observe the complexity of the situation and figure out the fact that interacting with two languages is an ambiguous case. Correspondingly, the currency values are also subjected to further analysis in terms of localisation. The case is based on a necessity of implementing the change between the nations if such a situation occurs:

For example, in the United States, a game selling a cheeseburger for \$2.00 is okay; however it would be unrealistic to display the price as ¥ 2 in the Japanese version; it would more likely be ¥160 (if you assume an exchange rate of 80 yen per US dollar). (Honeywood, 2011, p. 10)

At some points, the change makes sense while in another context it is an extra task and is not obligatory. Once again, the background and in-game situation stand to reason. Last but not least is the reduction of the text as a concomitant aspect of adapting discourse. This is mainly applicable to subtitling and material for voiceover recording. The case is that semantic transfer and meaning delivery are carried out by using different rhetorical and verbal tools that vary in diverse cultures. The significance is that those replicas and speech are targeted at possible further dubbing of the in-game characters. Commenting on subtitles, Bernal-Merino (2014) argues that examining the phenomenon in a linguistic context, the process of subtitling designates where and when the original utterance can be curtailed or expanded in order to correspond to the requirements of the target culture and language (p. 71). Implementing changes to original speech is pivotal due to the time frames, that are set by a definite period of lip acting.

Having discussed the technique of textual translation in the area of localisation, it would be useful to pay attention to the sphere, from which translation actually comes from - *linguistics*. Since video game localisation implies both, translation and adaptation to the target culture, a useful suggestion would be to deliver some insights on what are these linguistic transformations and what text-related operations they imply. *Linguistic analysis* of words and sentences is described by Lapham (2022) as an analytical examination of a particular piece of language, including semantics and composition of the lexical unit. The transmission of these components is investigated by comparison of the source language and target language options. At this point, if the comparison emerges as a preparatory phase for further adaptation of text, linguistic analysis spill over into translation operation accompanied by special translation techniques. Molina and Albir (2004) introduced a classification system used to define and distinguish different translational methods as tools for inspecting and categorising the translation equivalents and how these are related

to different sections of the language (p. 507). In their study, they suggest that translational approaches are beneficial in terms of searching for the best interpretational solution and can affect the quality of translation. Commenting on translational methods, Tronch (2022) argues that translational procedures are utilised by specialists when the goal is to compose an equivalent lexical entity in order to carry the semantic element from the *source text* (ST) to the *target text* (TT). Sometimes, similar terms are used to trace the ratio between two languages - *source language* (SL) and *target language* (TL).

Table 1. Translational techniques, provided by Molina and Albir (2004) and Khaled (2022), converted into a table

Techniques suggested by Molina & Albir (2004)	Description by Molina & Albir (2004)	Description by Khaled (2022)
Adaptation	A shift in cultural environment, i.e., to express the message using a different situation	Also known as cultural equivalence or cultural substitution, Adaptation is the chosen method when translating jokes, as an example. It's essential when expressing the meaning of phrases that don't exist among the target audience culturally or aren't common in the target culture. The translator replaces the original phrase with another culturally acceptable and convenient one to the target locale.
Amplification	The technique implements extra details and information, that are not mentioned in the ST.	Contrary to reduction (or amplification) the expansion technique involves adding more words to express the source text meaning the best. Sometimes, without amplification or expansion, the meaning can't be conveyed since there might be differences structurally, grammatically, and semantically between the source and target languages.
Borrowing	A word taken directly from another language	Borrowing is a technique that doesn't seem to be a "translation" since it uses words or expressions from the source language. As its name suggests, it borrows the word from the original text and inserts it into the target language without any alteration.
Calque	A foreign word or phrase translated and incorporated into another language	Calque is a translation method by which a phrase is translated literally from the source to the target language. This word-for-word translation constructs a new term in the target language, such as the French term "gratte-ciel," which comes from English "Skyscraper."
Reduction	The approach helps to reduce the number of text symbols for TL.	Sometimes, the translator chooses to cut words or phrases that seem redundant or unnecessary while translating from one language to another; this method is called reduction.
Modulation	A shift in point of view. Whereas transposition is a shift between grammatical categories, modulation is a	Modulation is all about adjusting the point of view of the source language. Without changing the purpose of the text, the translator uses another

	shift in cognitive categories.	phrase in the target text to convey the same meaning as the original text.
Compensation	An item of information, or a stylistic effect from the ST that cannot be reproduced in the same place in the TT is introduced elsewhere in the TT	As its name suggests, this method compensates for missing the nuances of the original text by mentioning the lost info later in the translated text. The translator uses this technique when a word has more than one meaning or form in the source language while having just one in the target language.
Equivalence	This accounts for the same situation using a completely different phrase, e.g., the translation of proverbs or idiomatic expressions	This method allows the translator to find an equivalent to the original expression in the target language. He changes the phrase totally while expressing the same meaning as the source language.
Literal translation	Word for word translation	This method is all about translating word-for-word from the source language.
Transposition	A shift of word class, i.e., verb for noun, noun for preposition e.g.	Due to the contrasts in grammatical structures between different languages, the transposition technique comes into play. It's when the translator changes parts of the text order (sentence structure) while retaining the same meaning as the original text
Generalisation	Generalization is to translate a term in a more general and vast manner	N/A
Particularisation	The technique uses a more precise or concrete term	N/A
Inversion	Relocating a word or phrase to another position in a sentence or paragraph	N/A

Table 1 performs the categorisation of translational techniques and various descriptions for transformations. On the question of definitions, the data provided by Molina and Albir (2002) includes brief descriptions of transformations they specified in their study. In addition, these were supported by Khaled (2022) in his article *10 Translation Techniques to Give You a Sense of The Scope*. This source was introduced in order to provide alternative explanations of translation techniques with a more detailed and expanded informational value. Clarifications from various sources can give rise to readers' comprehension of the phenomenon. For example, Molina and Albir (2004) classify borrowings and calques as elements of literal translation, which functions not only as a synthesis of the classification but also as a separate subcategory. The authors deliver the idea of the oblique translation to consist of transposition, modulation, equivalence and adaptation. Categorisations in this area are flexible and floating as well as the process of localisation. Touching upon a

structural ambiguity of these classifications, it is possible to define them as general or specific. By way of illustration, Grassilli (2013) introduced the term *nominalisation* and defined it as a technique of “transforming a verb or an adjective into a noun”. For example, the phrase “The idea is developing and causing further conversations” has the option of being translated into another language by way of word class alteration and the localised version would then sound like “The development of the idea causes further conversations”. The verb “is developing” was transformed into the noun “development” and this modification is titled nominalisation. Consequently, the reverse transfiguration of a noun into a verb will be determined as *verbalisation*. Various parts of speech can be replaced by other word classes, and it seems to be possible to assign this particular nominalisation case to the transposition category suggested by Molina and Albir (2002) in the table above. This observation may support the hypothesis that the transposition technique serves as a general section of all the diversity of word class permutations. Another substantial and highly popular transformation among translators is a reshuffling of lexical components within the framework of the text. Molina and Albir (2004) defined this procedure as *inversion*. It is almost certain that there is a high opportunity of stumbling upon the modified word order during translation. This technique is also defined by Gritsay and Vodyanitskaya (2021) as a *permutation* and the authors suggest that this approach “can be defined as a change in the location (order of sequence) language elements in the translation text compared to the original text” (p. 3).

However, some of the techniques, like substitution, variation or discursive creation were excluded from the categorisation as excessive material in this study. Following the game *Metro Exodus*, it was preliminary noted that the procedures, introduced in Table 1 are the prevalent transformations, occurring in translation of this project. Therefore, the general categorisation was adapted specifically for this study. In addition, a beneficial suggestion was to attach some methods that were not yet pointed out. For example, Komissarov (1990) introduces significant lexical translational transformations such as *transliteration* and *transcription*. According to the researcher, these approaches are aimed at reproducing the lexical unit of the original by reconfiguring its form using the letters of TL. Transliteration reproduces the graphic form (letter composition) of a foreign word whereas transcription provides its sound form. These operations are pivotal from a cultural point of view when there is a need of translating the onomastics elements (e.g., proper names) and some related branches like toponymy (names of places) and socio-onomastics (regarding terms, inherent only to a specific society or cultural layer). However, according to

Grassilli (2016), in some cases, the calque technique may be referred to as transliteration, including names of people or locations. This is the confirmation of the fact that it is important to bear in mind the possibility of several transformations existing in one translational unit and sometimes these are complex in terms of distinguishing (Tronch, 2022). Together these results appear to provide important sufficient insights into the process of textual alteration while adapting the script for various cultural layers.

#### **2.5.4 Audio Processing and Voice Acting**

Audiovisual translation consists of several types of translation, which are usually used in movies, TV series, animated works, and video games. Voiceover is a *dubbing* option, which implies supplementation of an already adapted and prepared soundtrack in a target language, superimposed on the original voice material. Dubbing was pointed out not as a separate option of providing translation for the characters' replicas but as a universal notion of what is genuinely implied. The operation is resembling a regular textual translation, but with some inherent peculiarities. It can be seen from the data in Figure 6 that time limitations are dictating the rules and provide restrictions on word choice, thus complicating the process of semantic transfer. *Voiceover* is commonly referenced as a simple abbreviation *VO* and used to define "all sound files containing actors' voices and lip-synch to refer only to those specific files that require careful *lip-synchronisation* due to the images they accompany" (Bernal-Merino, 2014, p. 74). The civility of this statement lies in the fact that adaptation of audio components is as significant as alteration of other elements like graphics or texts.

The question is how much effort, time and financial resources developers are willing to invest in the project. The project with a diversity of involved audio files, that are presented in Figure 3, creates additional obstacles for translators, slowing down the speed of exploring and adapting the texts for certain needs and requirements. The volume of workload and time spent depends on a particular level of audiovisual translation as each degree puts forward different demands. Several options are available for applying in terms of audio adaptation. Based on dubbing practices, mentioned by Chaume (2004, pp. 72-73), Bernal-Merino (2014) distinguished a few levels of articulation delivery, which he also refers to as prices: Lip-synchronisation (lip-synching), dubbing and voiceover (p. 114). Referring to these levels as "prices" is meant to deliver the idea that expenses will vary, depending on the chosen option. The first type is the most expensive and time-consuming,

appearing to be the most appropriate one for the film industry. Following the facial expressions and mouth movement performs the total complexity of voiceover editing as the translated audio track is expected follow the articulation of the original speech. According to Bernal-Merino (2014), dubbing is a less difficult operation because of the fact that the total time frames are significant and the lip-synching may be omitted. The last method is voiceover, where the length of already adapted audio tracks is floating as the characters' faces are not visible. Commenting on sound recording, Honeywood (2011) argues that one of the most substantial starting points is to specify what a certain text demands: *time synching* or lip-synching; the first option occurs when the cue and in-game activity are interconnected, whereas the lip synchronisation is primarily critical for cut scenes and other situations when the facial movements of a character are noticeable (p.19). Obviously, the applicable method fully depends on the decision of game developers.

I agree with the idea that Bernal-Merino's categorisation is delivering insights on the level of accuracy and quality of localised audio files. The research would have been more relevant if a broader categorisation of sound alteration had been introduced. In the same vein, Savko (2011) introduced two traditional audiovisual translation strategies: dubbing (re-voicing) and subtitling. These two definitions seem to be sufficient in terms of dividing the localisation of audio files into two groups. Moreover, in order to introduce some clarity, these terms are effective because they are widely used in movie creation and film lovers are comprehending the meaning of these words. Generally speaking, dubbing is a conjunction of verbal and scriptural translation, where the voice intonation, pauses, emotions and other artistic approaches are engaged in the process of voicing the localised script. Subtitles are the text, oriented at gaining visual attention (Savko, 2011). This category provides pictorial assistance to the player and may come useful in terms of discerning the original language. In this case, the entertainment facility unites with an educational side.

Concerning the quality and accuracy of the audio localisation, a translator is required to be present during recording the soundtracks; this person will help to deal with the material and point out significant features and tips on recording. Moreover, the translator is able to give comments on a special editing list with scripts, localised texts, time marks and other comments, related to voicing. With the intention of delivering the most accurate and suitable sound reproduction, localisers must obtain some knowledge about the target culture and language. Some language peculiarities, voice tone, pauses and intonation change can play an important role in composing game experience. This view is supported by

Honeywood (2011), who writes that “Asian languages may prefer high pitched female voices, while Western languages may prefer deeper voices, so allow each translation team make decisions on what is best for their own language rather than forcing them to all sound alike” (p. 19). This case relates to the cultural aspect of the adaptational process which is the core idea of this study. While operating with the manuscript, one of the translators’ main targets is to concentrate on the stylistics of a particular message and detect a variety of linguistic dissimilarities, which may occur during the collision of the original and target culture. Correspondingly, the original script is not the only subject to modification, but the ultimate text, during the preparation for further sounding, also requires additional adaptation.

Finally, but importantly, the actual resounded cues, provided by voice actors have an important role in a video game as a final product. As for me, I would prefer an original version with translated subtitles than a localised edition with only one or two persons voicing the whole game. Again, everything depends on the developers’ decision, amount of time and financial sufficiency. In 2011, Honeywood published a paper in which he pointed out the significance of signalling the recipient of the actor’s speech which “allows studios the opportunity to re-use actors in multiple scenes or files while allowing them to avoid sequences of one actor voicing two characters that are speaking to each other” (p.19). In my opinion, the case may be associated with the film industry, where voiceover issues are more common in terms of undesirable resounded speech of several characters with the same actor. The audience pays attention to voice actions vocalising a worldwide known character in different screenings. For example, one of the most popular and expensive films by *Marvel*, including *Avengers*, *Iron man*, *The First Avenger* and other projects perform a variety of the trendiest film actors who are either participating in the footage or voicing their characters. For example, in a localised version for Russia, spectators got used to consuming these films with one particular voice talent, vocalising his or her character. After watching a series of films with one sound actor delivering the speech to a specific role, it is possible to come across another movie with a quite different person to provide the articulation. From my experience, this is a quite weird and unaccustomed practice of watching the project as you will probably get used to the voice of more prestigious movies.

### 2.5.5 Visual Material Section

The genuine recipient of a video game is a player and their aim is to experience the game either auditorily or visually. If the involved person tests a localised option of a project, aimed at their cultural layer, encountering the alteration elements is inevitable. As was already discussed, regular features of one culture may be offensive in another or deliver a different point than intended. Cultural collision can be dangerous as it may raise negative attitudes and lead to a prohibition of a video game release. This is exemplified in a cultural shifts section of the current study, where the graphical alteration was preliminarily terminated in terms of political correctness, which generated a historical inaccuracy, illustrated with the video game *Wolfenstein*. In the same vein, Fehrle and Schäfke-Zel (2019) in their investigation compared lexical units of franchises' different localisations. The data was placed into the table and presented in the book *Adaptation in the Age of Media Convergence*. The main idea is that pivotal alterations are aimed at disguising any allusions to the Nazi regime and Holocaust. In addition, the authors hold an opinion, that although Germany does not forbid touching the Holocaust but attempts to depreciate it (p. 220).

Table 2. Adjustment of denotations in *Wolfenstein: The New Order* while localising game for German market (Fehrle and Schäfke-Zel, 2019)

US Version	German Version	Translation of the German Term
The Nazis	Das Regime	"The Regime"
Nazis	Feinde, Schergen des Regimes etc.	"Enemies," "henchmen of the regime," etc.
Kreisau	Wiesenu	Proper noun
Jewish citizens	Verfolgte Bürger	"Persecuted citizens"
Hitler	Das Staatsoberhaupt	"The head of state"
Eva's hammer	Hammerfaust	"Hammerfist"
The Reich	Germanien	"Germania"
Belica	Selo	Proper noun
Auschwitz	[missing]	
Buchenwald	[missing]	

Considering that the graphical and textual modifications differentiate totally from the original terms, this camouflage can be effortlessly omitted by gamers who are aware of the Second World War events. What is interesting in Table 2, is an effective way of illustrating the terminology which was subjected to transformations. For example, the word combination "The Nazis" in US version was converted into "Das Regime" in German localisation, which means "The Regime"; "Jewish citizens" (US) translated as "Verfolgte



Bürger” (Germany) and means “Persecuted citizens”; “Hitler” (US) interpreted as “Das Staatsoberhaupt” (Germany) denoting “The head of state”.

Similarly, Bernal-Merino (2014) in his study on localisation, exemplifies the way of transferring a video game from one cultural layer to another by introducing graphical material from diverse options (American and German) of the same game, titled *Wolfenstein* (Raven 2009: Activision).



Figure 4. Comparison between the German and American versions of *Wolfenstein* by Bernal-Merino (2014)

Closer inspection of those pictures indicates the differences between the genuine Nazi symbol and the localised version of it on the in-game documents; the modified logo is actually a first letter “W” from the title of a game. The case is that in Germany all the related symbols and references to the regime were forbidden, except texts and signs; even the model of Hitler (*Wolfenstein II: The New Colossus*) was adjusted and renamed. Moreover, the German legislation caused the exclusion of blood in the gameplay whereas in the US version this aspect remained. Authors define the disruption of the original historical events and facts as *mythologization* and nominate the filtering of inappropriate in-game elements as *sanitization* which intensifies the popularity of the project “and will not keep any significant portion of *Wolfenstein* players from recognizing the original references” (Fehrle & Schäfke-Zel, 2019, p. 224). The localisation may sometimes violate the real events and that is why appropriately applied shifts are essential, scrutinising the cultural preferences, taboos and policies of other cultures. This view is supported by Bernal-Merino (2014), who writes that adaptation in that kind of case “involves creative decisions and the game-worlds themselves often tend to establish their creative parameters by indicating what would be admissible and what would not” (p. 174).

In practice, game players may not even be aware, that the project has been modified graphically. But these crucial implementations in the design of a project are aimed at influencing on players' experiences and emotions. In case, the in-game elements require moderation, special tools and programs are used to append an extra level to hide the target visual material or to cover it with an already prepared texture. The applied graphics are exposed to extraction from the project for the purpose of avoiding protrusion against the background of other artworks. However, the implementation of visual alterations may be technically conducted only by the developer while localisation specialists are just submitting the request. In a study investigating video game localisation, Siauciune and Liubiniene (2011) referred to the Chroust's (2007) hierarchy of localisation layers, in which graphical modifications were applied to "Graphic and Iconic Representation Layer" (p. 47). Researchers claim that transforming any pictorial elements is a standard procedure when localising software programmes or web resources. Nevertheless, turning to the area of video game adaptation, that sort of an issue is consequential and shall be firstly sent to the software engineers and development team as the final decision to allow or prohibit any adjustments is proposed by these specialists. In addition, implementing any amendments to the graphical material may cause a different comprehension of the project.

The correlation between translation and graphics stages during localisation is substantial because these two areas are complementing each other. Graphic adaptation covers not only internal images or certain visual components of the game environment. The script is modified on the corresponding level and the final version of the text is ready. However, this material is ramifying into a diversity of variants and some of them will be exposed to the font, depth, colour, position and other alterations. Texture moderation specialists operate by redesigning visual scripts and adapting them for a particular version and this is the moment when translators are appearing again to verify and approve the accuracy and intelligibility of the visual version of the localised text (Honeywood, 2011). Obviously, before initiating the process of adaptation, the task is to determine these scripts (if they are embedded into the textures of game surroundings) and this process sometimes is not the easiest one. By drawing on the concept of immersion into a virtual world, Bernal-Merino (2014) pointed out the significance of focusing on visually illustrated scripts:

...graphic-embedded text contributing to making the game world both credible and enjoyable may appear anywhere in a game, regardless of the genre, and it certainly requires translation in order to keep players engrossed in the adventure and not to alienate them with texts in languages that are not required by the story. (p. 130)

Correspondingly, the target of visual adaptation is not a mere adjusting of the units in the virtual world. A video game is a combination of user interface (UI) elements (either internal or external), documentation and other materials a user can encounter during play-testing. Previous studies have explored the aspect of immersion in terms of delivering the categorisation of game interface (which elements or activities are experienced by the *player character* (PC) and which are able to relate only to the player. These classes are titled *diegetic* and *non-diegetic* user interfaces. A diegetic interface is an integral part of the in-game universe and can be perceived physically, auditorily or visually by the character whereas a non-diegetic interface is detached from the game world and may be operated only by a human (Andrews, 2010). In this context, the division appears to lack any value for the graphics specialists as these people will discover and monitor every possible visual controversy. The matter is that the localised version of any material may vary depending on the recipient. Correspondingly, the interaction between the elements of the diegetic interface and the in-game character will differ from the contact between the real-life player and non-diegetic or diegetic UI systems. Ultimate alterations of texts or graphic materials will differ, based on the receiver.

However, the categorisation mentioned above is only about the orientation on a receiving site and an elementary subdivision into wording and pictures is not sufficient for the section of graphic adaptation. Esselink (2000) distinguishes between image types that are: a) Generic graphics, b) Screen captures, c) Screen captures with translatable context, and d) Illustrations. Generic graphics are images that comprise convertible scripts on surrounding textures which are suspected to be a further shift. Screen captures are pictorial UI elements of already localised software utilities identical to main menu facilities and options or dialogue boxes. This recent category can be supplemented with translatable text, which leads to the emergence of another subdivision. Finally, common textures, background pictures or line-art images are titled *illustrations* and if any words emerge on these visuals, it can be modified by adding or excluding another layer to the original graphical element.

Another significant aspect of graphic adaptation is introduced by Bernal-Merino (2014), who exemplifies a comprehensive list of assets by Chandler's (2005) classifications, which says that the ideal localisation set includes that kind of art resources as "layered art files, localisable graphics-embedded text and logos, art assets checklist" (p. 192). These specifications are also illustrated in Figure 4. It may be the case therefore that these variations of graphical components are defining the process and the complexity of adaptation.

The more layers a texture has the easier it is to adapt these visual materials and the accompanying text.

## 2.5.6 Major Inspections and Testing

As was already mentioned in a voiceover recording section, one critical issue for translators is to perform a good understanding of stylistic matters of the target language. The subject is of primary importance in the stage of *Quality Assurance* (QA). Consequently, specialists are supposed to possess a deep understanding of receiving language structure and performing certain insights on video games and the whole gaming world is undoubtedly a huge advantage. This view is supported by Honeywood (2011), who writes that “testers should be a mix of strong linguists in the target language as well as some who are good game players” (p. 21). Furthermore, he points out the significance of operating in own speciality; specific errors and bugs are vulnerable to be adjusted by appropriate specialists who are qualified in their functional area. In the same vein, Bernal-Merino (2014) describes the process as a multi-person operation where each specialist receives the issue from the previous unit, completes the definite task and passes it on.

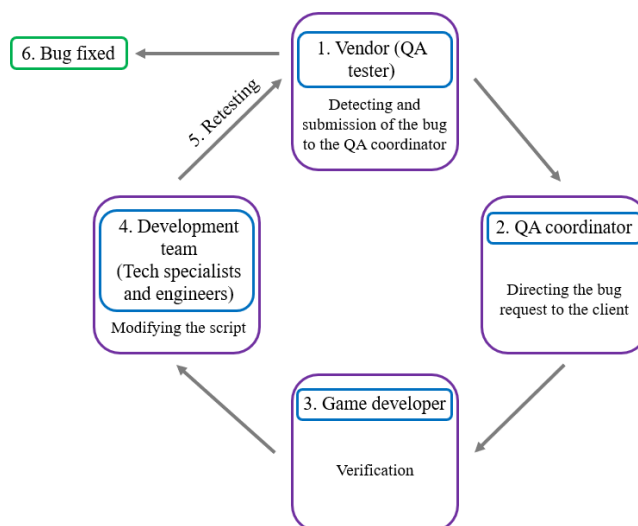


Figure 5. Bug reporting process by Bernal-Merino (2014), converted into a graphical scheme

The aim is not only to detect a particular error, bug or another technical drawback and fix it but to review, register and consult on the issue. Data from the figure above can be compared with the data in Figure 1 which also performs the cyclicity of the process. All the cells are interconnected and the flow returns back to the initial phase for the final verification.

As was mentioned above, the higher quality and level of knowledge of an individual, the more effective and productive way of detecting and adjusting defects will be. However, in that case, the process will become more time and budget-consuming. This procedure also accords with our earlier observations, which displayed that texts embedded into the graphics are vulnerable to verification by the last-stage translator just in case or if any dissents occur. Consequently, the previous stage also implies a QA aspect and in the approval stage the presence of a lead translator, who makes final decisions, is important. Therefore, linguistic testing involves a language-certification assessment by full-fledged proofreading of the text located in the structure of a game. Semantic and pragmatic transfer to the target language is as important as casual punctuation mistakes, extra spaces, typos, style obscurity and a diversity of other aspects should be reviewed. All these cases empathise the lingual section of quality assurance and are titled *Linguistic Quality Assurance* (LQA). Nevertheless, the final stage of the project review is also supposed to observe technical drawbacks and bugs.

Structural flaws of the text positions, emergence or vanishing from the screen, movement and overlapping can be referred to as the technical side of quality assurance. However, these issues reported here appear to support the assumption that there is a division in the QA sector into linguistic and technical matters. But this technology part was established to be a language-related tool in previous studies and mentioned by a number of researchers and authors despite the fact that it may be also considered to be non-linguistic and operate in a different spectrum of software weaknesses. Honeywood (2011) in his game localisation draft sees QA as a linguistic entity, aimed at reorganising and correcting language-related mistakes. On the other hand, these researchers always complimented their investigation into this area with comments or titles, including the indication that the case applies to the textual translation. However, Esselink (2000) has even dedicated an entire chapter to the quality assurance of game software. Even a broader perspective has been adopted by Bernal-Merino (2014), who has introduced a broad categorisation of localisation QA targets: a) the electronic machine preparation in terms of format and specs, provided by a QA specialist and aimed at playtesting with further analysis of ultimate translation quality; b) detecting bugs during playtesting, verifying all the script, adopted due to the requirements of the target language, confirmation of the interrelation between text, visuals and sound, reviewing of any possible overlaps, screen interruptions or window collisions; c) identifying and reporting bugs and registering them in a special database with concomitant fulfilling comments and instructions; d) the bug neutralisation process,

conducted by the members of QA unit. After the completion of all these stages, QA specialists may initiate the procedure of modification. This case has shown that separating linguistic and technical aspects of quality assurance delivers sufficient comprehension of the role of the whole section in the adaptation process. It emphasises again the idea of the current study which lies in the fact that textual translation is not the whole localisation but just a part of this process. There is a diversity of other pivotal phases to investigate if you desire to produce an acceptable and meaningful game version. Having defined the main stages of localisation, I will now move on to discuss the final section of the process.

### **2.5.7 Final Verification and Confirmation**

This stage of the localisation process is the last one; the final verifications and shifts of translation and its appearance inside the game are reviewed. Any types of drawbacks, either technical or linguistic ones undergo detection during the playtesting session. As indicated previously, any issues that can interrupt players' experience of the project, need to be excluded. Texture collisions, voice distortions, improper position of user interface elements and subtitles, and grammatical, stylistic, punctuational and pragmatic correctness of the script (except the cases when the script is supplemented with mistakes on purpose to correspond to the context and situation) are the crucial issue to consider. Consequently, after all modifications and ultimate amendments are executed, then all localised data is commonly united into a separate entity which will be delivered to the game developer, who will implement all the material into the project. To emphasize again the significance of the translator's role in each phase of localisation, Honeywood (2011) pointed out the usefulness and necessity of translation specialists' presence in the last phases of localisation. A crucial matter for a linguistic specialist is to test the project in order to ensure once more propriety and relevance of the embedded material and its readiness to go further to the production and release stage.

There are several options for localisation to occur. The first strategy is initiating the process after the original version was already designed. In this strategy, localisers are producing a separate mode of the game for each target market and the workload seems to be several times higher than the second option. Commenting on video game localisation, Bartelt-Krantz (2011) argues:

...game localisation needs to happen in parallel with the final stages of development to ensure the development team is able to make changes in the game

code that is shared between the English and the localised versions before this is finalised. (p.84)

The idea of the second method is to prevent the emergence of technical errors, inconsistencies and extra work by implementing the localisation as a parallel operation as performed in Figure 6. Specialists, who compose the code and organise the game structure are able to save time and decrease expenses by preparing the software ground for convenient overlapping localisation. Previous sections have shown the diversity and complexity of the localisation system. Taken together, these insights and ideas, provided by a variety of researchers, outline the entire operation, despite the fact it is a flexible and not strictly defined procedure.

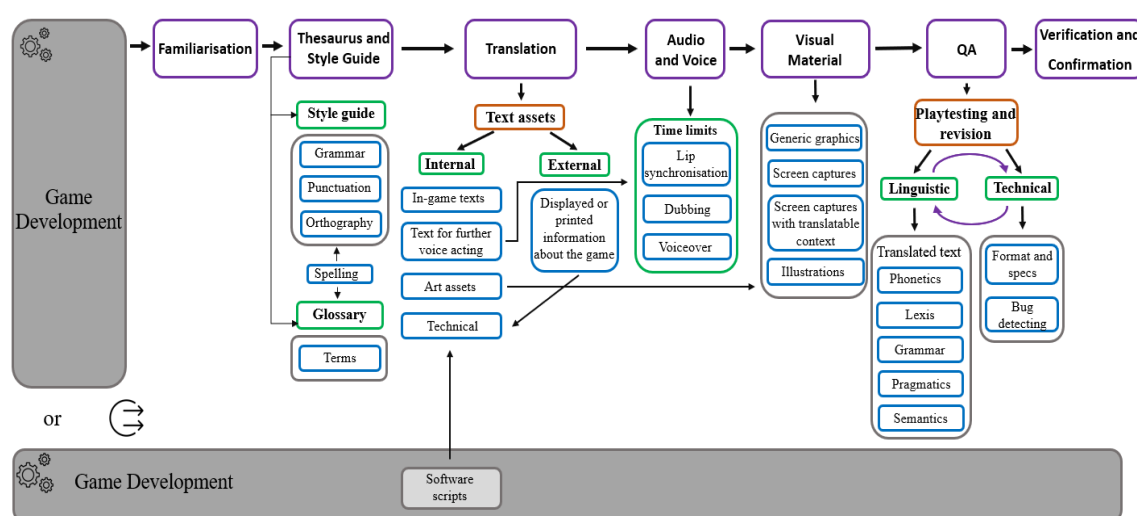


Figure 6. A detailed plan of localisation, based on the theoretical background, obtained from studies, provided by Bernal-Merino (2014), Honeywood (2011), Esselink (2000) and Bartelt-Krantz (2011)

Moreover, Bartelt-Krantz points out that when the initiation of localisation was approved, the dealers and distributors defined and the whole process is outlined, the first stages of adaptation can launch in close collaboration with developers (p. 82). Chandler (2005) connects this method with *sim-ship* or simultaneous shipment phenomenon in the world of video games, which he describes as the “benefit of reducing the impact on the revenues of grey and black-market imports, as well as benefiting from an international advertising campaign preceding an eagerly anticipated title” (Bernal-Merino, 2014, p. 201). Obviously, the process is more complex in terms of organising the option of a workflow and cooperation between all the units at the same time. Honeywood (2011) suggests this final stage also implies the interpretation of extra content for the game, such as posters, disk box cover, advertising matters, instructions and other concomitant material.

Video game localisation is a tricky, ramified and semi-level operation, which is organised by specialists from a variety of areas and each person is responsible for a specific process. The data reported in this chapter appear to deliver a diversity of concepts and suggestions, aimed at introducing a spectrum of pivotal adaptational alterations and adjusting the operation of localisation. The results obtained from the preliminary analysis of the localisation procedure are summarised in Figure 6. The scheme is believed to perform the highest level of usefulness, convenience and adequacy of data interpretation. This case demonstrates which stages and manipulations the target data is supposed to confront. Units and subsections are closely collaborating with each other. Correspondingly, there would therefore seem to be a definite need for specialists' interconnection as well. In order to achieve the most suitable and proper target version, translators have to act in close collaboration with other members of the teams, like software developers, publishers, play testers and other experts even though the procedure processes alongside or separately from the production phase.

The localisation was meticulously examined with the purpose of delivering the idea of how it operates, what processes are involved and how it is significant to adequately transfer the meaning to the diversity of cultural layers. Returning to the subject of the study, it is likely that localisation is an expanded multi-functional version of video game translation, as well as translation is one of the pivotal components of localisation. In addition, the practicability of this chapter for a reader is conditioned by examining the translation of texts as a technical element of localisation and as a linguistic entity. Once the process of adaptation was sufficiently introduced it is now time to concentrate on the primary issue of the thesis - translation. The following part of this paper moves on to describe in greater detail the engaged methodology and process of detecting suitable data.



### **3 METHODOLOGY: APPLICABLE RESEARCH STRATEGY**

Having defined what is determined by localisation, what stages, structure and peculiarities it implies, I will now move on to this third chapter, where a suitable type of practical approach is explained. The applicability or inapplicability of a specific method is also explained in the following pages. The workflow implies discovering, analysing and discussing interesting and controversial issues of pragmatic and semantic transfer of the manuscript as well as gameplay inadequacies, based on software weaknesses. This investigation delivers a comprehension of such phenomena as video games and their cultural adaptation. To exemplify the fact that nearly each video game has drawbacks and insufficiencies in its localised version, designed for diverse target markets, an analysis of a particular digital project will be conducted in the following chapter. Before diving into the practical investigations, methodology and the actual material should be taken into consideration.

#### **3.1 Potential methods**

The main aim of this study is to investigate the differences between two language versions of a particular video game. At the very beginning, I confronted a diversity of methods that are applicable for this sort of research. The original idea involved a detailed analysis of several localised versions of a video game, distributed in different parts of the world and adapted for a specific cultural layer. However, this option of detecting pivotal relations and distinctions between several adaptations finally appeared to be quite complicated and cumbersome concerning the convertible data. As was discussed in the previous chapter, the localised option of the game is available for direct consumption and analysis if a player is located and able to purchase it in the target country for which the game was adapted. Moreover, the complexity of the approach consists not only in being proficient in the language of localisation but in delivering comprehension of a particular instance.

One of the potential approaches is based on researching cases that were already performed in various sources, as experiences, reported by a certain number of players from different parts of the world. These matters may be found in the articles and blog posts devoted to promulgating various in-game modifications that appear to be interesting to share with the audience. An advantage of utilising the material of this type is that it is easily accessible and the answer can be detected simply by surfing the internet. According to Sköld

et al. (2015), these articles, blogs, forums and other media sources are perceived as *archives* that emphasise game production and consumption from a cultural perspective. Furthermore, at some points, drawbacks and inadequacies of either the translation or structural transformation of the game may be performed in these sources. Another drawback is the quantity of such data holders. While going through the internet sources, I managed to detect just a small number of these articles. The challenge is also their resemblance as it was a common situation for me to come across the related localisation matters of the same video games in various articles and blogs. It appears to be that publishers just borrow interesting and already published material on game interpretation and proclaim it on other media platforms. Moreover, it is also possible that a player, who is reporting or commenting on a specific case in an internet source may not be an expert in linguistics, translation or localisation structure of digital projects. Involved people are just commenting, asking or offering their suggestions on a particular in-game modification which showed up to be controversial or just multifaceted. Nevertheless, such data appears to be useful in terms of exemplifying and providing background comprehension of significant cultural aspects of various areas and importance of their further adaptation. That is the reason why some of these cases were implemented in Chapter 2.

Another potential approach for the current study would be organising interviews. Both internet articles and interviews are generally organised around the involved people's viewpoints and practical explorations. The issue is to find participants who have already played the certain game in both original and localised for their region versions. Languages and countries of distribution can be various; the issue is searching for interviewees, who have tested the original game (which is a non-native option for them) and are able to compare it to the localised version, distributed in their area. Moreover, besides the actual playtesting, interviewees are expected to obtain at least some basic insights into what the process of video game adaptation is and what translation procedures exist and how they operate in these languages. Even getting some knowledge on the subject, participants are likely to provide data, extracted with totally different categorisations of textual translation and this may cause several misunderstandings as the author is also responsible for introducing relevant and practical questions and classifications related to the topic (Brayda & Boyce, 2014, p. 319) that may not be comprehensible for respondents. These limitations might introduce a certain degree of complexity and entanglement while organising practical research.

### 3.2 Combination of Game-Testing and Formal Analysis

The section below describes game-testing and formal analysis approaches that appeared to be the most appropriate and effective for the current study. While interviews and analysing existing articles are attributed to other people's experiences, the game-testing method implies own testing sessions with further formal analysis of the selected material. The method suggests that the research does not examine how various individuals test or perceive a specific case in the video game. It neither uses other internet sources than the project itself. The researcher is also a player. It is possible to say that a player is a digger and a video game is a mine, which supplies a miner with diverse resources. In the same vein, Mäyrä (2008) notes that “most crucial element in any methodology of game studies involves playing games” (p.165). The advantage of such a method consists in organising an own investigation into the project a user has tested. A detailed exploration of a game structure, world, characters and other components is likely to arise multiple unclear or controversial cases, suitable for deep analysis. These instances are more memorable as a player genuinely confronts them during the whole session, not just deriving material from other sources. Such a beneficial practice leads to more productive consideration and discussions. Obviously, this is a time-consuming method, as simple game-playing is not sufficient for proper investigation and data selection. In that case, extra assurance and advanced comprehension are impossible to achieve without several playtesting sessions and trying out various in-game options (Creswell, 2014). In fact, all the cases that appear to be beneficial for practical examination, are extracted not during the process of playing, but during several reviews of replays. Recordings allow observing potentially interesting and relevant cases in a slower manner and from diverse perspectives. A researcher is able to return to recorded videos anytime to clarify something or decide if a specific case needs to be implemented into the analysis. Generally, any methodology could be time-consuming but multiple reviewing of saved playtesting sessions is followed by selecting cases and evaluating the relevance for the current investigation were the most critical challenges when applying the game testing method.

The scope of the current thesis implies organising playtesting sessions of *Metro Exodus* with the purpose to discover potentially interesting and fruitful cases of intercultural adaptation. The notable feature of this game franchise is that the production process of each project was advanced by the Ukrainian *4A Games* company either in Russian or in English language, under the supervision of *Metro* universe author Dmitry Gluhovsky. According

to the *StopGame.ru* video<sup>3</sup>, developing the game simultaneously was aimed at the faster distribution of the project on the market. Translation and voiceover of the game were carried out by the localisation sector of the company *Buka*. The whole process was supervised by the development studio (4A Games). An interesting fact is that the development company based in Ukraine set the Russian language as the original language of the game and all characters' cues were written initially in Russian (Samitov, 2019). All other languages, including Ukrainian, are considered to be localisation. *Metro Exodus* is a relevant project to analyse as it is not formulaic in terms of video game adaptation when localisation is fully implemented by a totally different unit. The game itself is discussed in more detail in the next chapter.

Taking all these aspects into consideration and recognising the language selections, I chose to examine a game, which has been designed simultaneously in the two languages I am most fluent in. Having defined the preliminary method of data extraction, I will now try to narrow the fundamental approach toward the method of actual data analysis. It is now understood that the game testing strategy is beneficial in detecting cases with the researcher's own experience. However, the simple material collection is not a full-fledged examination of the video game in the frames of this study. The derived evidence needs to be defined and categorised, which was quite a challenge. Therefore, a particular case needs to be investigated in a more detailed way and from a certain perspective. At this point, it is a good idea to move on to discuss the second phase of material examination. *Formal analysis* is a type of investigation, where a specific artefact is scrutinised as well as its components and interrelations between them (Lankoski & Björk, 2015). According to the researchers, in the area of video games, the approach is utilised while playing the game and studying it from a variety of perspectives. One such perspective involves a qualitative approach in researching video games. A study that set out to determine the methodology of game research, reported that "finding the parts of the games that are relevant for the current focus of interest is the first part of the formal analysis" (Lankoski & Björk, 2015, p.27). For the purpose of applying such a methodology, the first point is to clarify which game-related components are supposed to be used as data, but this data is extracted from investigators' own experiences as game testers. Consequently, game testing sessions and their recordings are the primary sources of information and investigation is enhanced around the analysis of game components:

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<sup>3</sup> See StopGame.ru (2017, July 19). <https://www.youtube.com/watch?v=9EuSEvC8Xoo>

Formal analysis focuses on describing the formal features of every work. These vary between fields: in visual art form, it consists of lines and colors; in poetry form includes rhythm; and in game form, it is the systemic features of the game such as game elements, rules, and goals. (Lankoski & Björk, 2015, p. 24)

*Metro Exodus* can be examined from the position of various cultures, between speakers of different languages. It may be the case therefore that one of these perspectives may be titled *text localisation* perspective, which focuses on translation peculiarities. In addition, according to Lankoski and Björk (2015), analysing technical drawbacks of intercultural adaptation of the project can be perceived as game elements. These components involve subtitle delivery errors and specifics of graphical material interpretation. But what is the purpose of narrowing the study from the general understanding of the localisation process directly to the interpretation of text? The theory and background section focuses primarily on the cultural significance of proper localisation and the study winds its way between theories, perceptions, findings and finally concentrates on translation and semantic transfer. Throughout the process of outlining the theory section, I was fluctuating in defining the factual goal of the thesis. It is possible that the pivotal expectation of a target audience, waiting for a localised version of the game is proximity to the original. In a study conducted by Bernal-Merino (2014), it was shown that *sameness* is one of the most anticipated aspects of translation, be it the aesthetic form of the genuine script or simply pragmatic frames (p. 106). As a result, there is a variety of translational approaches and semantic delivery methods for accomplishing such an objective.

### 3.3 Investigation challenges

In some video games, simple setting changes are able to facilitate the activation of pivotal alterations (e.g., text, embedded as a texture on the visual background of a particular scene), but these cases are difficult to locate in this tremendous variety of projects. This complexity appears to be one of the main limitations of the study. In contrast to, for example, *Wolfenstein* (Figure 4, p. 31), *Metro Exodus* does not include these deep graphical modifications. Instead, developers installed the pop-up phrases as a means of localising the readable scripts on the textures. These cases will be reviewed in the analysis section. After the preliminary game-testing sessions, I decided to redirect the flow of the practical section towards textual inquisition.

The essence of video games appears to be contentious in determining the issues that can hinder investigation on behalf of localisation. Diversity and versatility serve simultaneously as extra sources of data and as analysis challengers either in terms of common unconcerned playtesting or during the specialised inspection. In the process of game testing, a specific project may present a player with a range of options to choose from. This mechanic allows the user to freely pick one of the available methods to reach a particular goal. By way of illustration, Bernal-Merino (2014) notes how the player can access the locked door with a guarding NPC in front of it (see Figure 7). The ways of completing this specific objection imply a casual talk with the security character, an elementary kill or applying some extra power or magic abilities to somehow force the guard to give or just leave the keys from the door. This is just a single in-game situation, which may be applied differently by a game player.

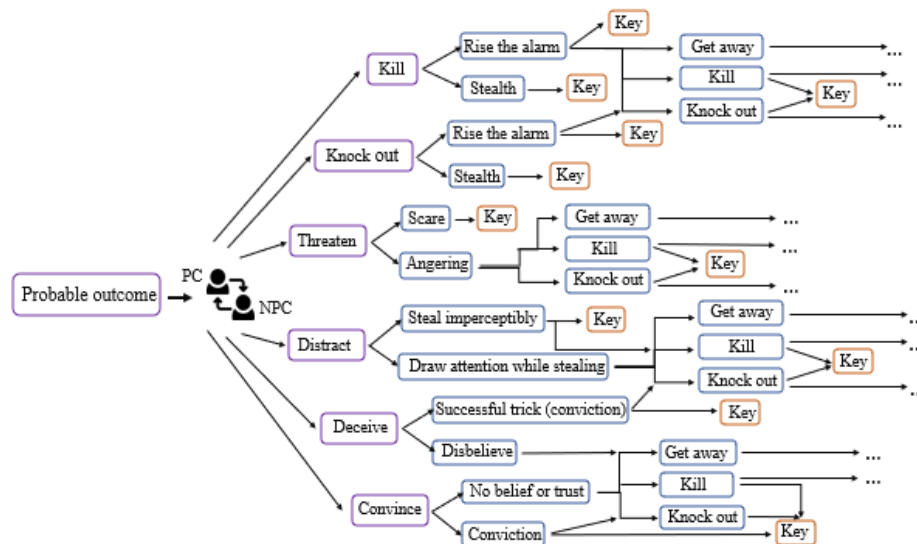


Figure 7. An eventual scenario of users' choice and playing mode, based on studies, provided by Bernal-Merino (2014)

Various games may possess specific inherent mechanics and progressing strategy that may affect the way a player goes through levels. It is thought that embedding a system of multiple-choice is intrincating the tasks of designers and programmers. The scheme above is flexible due to either crucial changes in terms of augmenting or excluding acting options or users' mode of playing. This view is supported by Bernal-Merino (2014), who writes:

It is not only that each player has a different perception and experience of the game, as with a book or a film, but that the game offers a self-adaptable, virtual world that responds to the actions of the players, adapting to their decisions. (p. 106)

Restrictions and permissions determine the scope of actions. As was already mentioned, this is just one internal situation in a game environment. It may be the case therefore that the games that are constructed due to a multiple-choice policy appear to be a valuable source of data. Even without mentioning extra factors, like localisation shifts or language settings, testing of different in-game decisions is already supposed to be fruitful but still appears to be one of the main obstacles of the investigation. Apparently, the project *Metro Exodus* which is investigated in this study does not possess an in-game multi-choice system extensive enough for excessively deep investigation. Moreover, these specific situations can appear to be out of the scope of this research due to the absence of potentially interesting and valuable localisation aspects, even though the options will be diverse, based on the player's choice.

Regarding the variety of potential actions and conversations in the game, it is significant to point out the fact that firstly, a player is required to find a character, place or any other element of the game world. As was previously suggested by Anisimova (2018), video games can be related to films to some extent. However, this case highlights a total difference between these two essences. If this study was concentrating on film localisation, the researcher would simply follow the plot of the movie, listening to the audio and reading the subtitles. The case is that a spectator is not able to influence the course of the film, whereas video games expect a player to interact and instigate situations in order to derive material, which is necessary for further investigation. This view is supported by Pearce (2004), who points out:

The first and most important thing to know about games is that they center on PLAY. Unlike literature and film, which center on STORY, in games, everything revolves around play and the player experience. Game designers are much less interested in telling a story than in creating a compelling framework for play. (p. 144)

Therefore, examining a video game from a localisation perspective implies a more complicated process, because a player is not only a spectator of the flow but a person, who is challenging this flow for the purpose of provoking diverse features of one particular matter.

Diverse pivotal modifications were illustrated in the previous chapter on the example of other video games than *Metro Exodus*. Consequently, discussing the reported samples from different games, containing useful and relevant alterations, is significant when the researcher wants to indicate in which way a certain in-game element confronts its target

representation, what measures were taken and what the final localised option looks like. Moreover, the analysis of the chosen project may in some respects be compared to some other game in order to emphasise a dissimilar approach or correlate the final results. In this case, introducing any explorations of an extra game will initiate another distinct full-fledged investigation, which is not the point. This is another limitation of the study because the proper comparison of localised versions of various video games lies in deep examination and comparison of both versions of them (original and localised).

Finally, the spectrum of chosen languages may also serve as a versatile limitation for the current survey. The first thing is the awareness of multiple cultural areas and their native tongue. The analysis section is conducted in Russian and English languages because I am a representative of Russian culture and possess the Russian language as my mother tongue. Moreover, I am quite fluent in English and I am acknowledged with some aspects of operating with English in Western communities. At the same time, I am not at all familiar with other language options available for testing *Metro Exodus*. Firstly, the challenge is conditioned by a lack of opportunity to inspect the way how localisation influenced the formation of other target versions of the project. Secondly, introducing analysis of more than one target language localisation will possibly cause a significant increase in the number of objectives and workload. Therefore, the processes of playtesting or collecting and reviewing the derived data appear to be more extensive and complicated.

### **3.4 Testing and data collection process**

Textual data is probably a less complicated material, compared to graphical modifications, in terms of detection. Words are audible and visible (visible in subtitles) and a player is not supposed to search for them like for visual alterations. Furthermore, language settings already provide access to diverse modifications of texts and it sometimes applies to the material, embedded into graphics and sound. In a study investigating video games, Janet Murray (2017) reported that “games can also be read as texts that offer interpretations of experience” (p. 143). This is a thought-provoking idea, considering the current area of studies where actual translation and video game analysis merged. A likely explanation is that this *games as texts* approach is not something like simplifying the complex structure of the game, converting it to words for further facilitated overview. On the other hand, the examination of words and sentences in games varies significantly from the common journalistic method, known for its product-based perspective rather than operating



with the script because of essence and culture (Cole & Barker, 2020). They conducted a research, that confirms that a video game is associated with the text, which appears to be a vast data reservoir for the current study. Cole and Barker (2020) draw our attention to game analysis, indicating its difficulty and informational value, suggesting to “elevate games as an artistic craft that produces cultural artefacts rather than simply consumer products” (p. 5). A more detailed account of a video game as an art form was given in Chapter 1. The substantial distinction between the mentioned investigation and my own exploration consists in a twin-track approach: I am aiming to either detect and analyse a specific instance in the point of cultures’ collision or contemplate a video game from a localisation point of view, which implies a product-related aspect. Regarding this notion, I decided to construct my research around the texts, graphics and sound as data, comprising unique intercultural entities.

The data of this thesis composes of visual and textual material, derived directly from the project during the playtesting session. With a focus on these elements, the PC version of the game *Metro Exodus* was played twice: the first attempt in the Russian language and the other playthrough organised in English. The primary textual material mostly consists of subtitles. The availability of both language versions of these UI elements and their accessibility on the screen delivers convenience in the process of data collection. Most part of either background or foreground articulated cues were converted into subtitles as well as in-game audio recordings (tape recordings on radio receivers). Despite this, the attention was concentrated not only on subtitling but on the accompanying sound cue. The procedure was organised in that mode because sometimes inconsistencies between voice acting and its visual representation of text occur, either in frames of translation or its implementation into the target version of the project. These cases may be referred to technical drawbacks of the localisation process.

The factual playthroughs were recorded with the *Geforce Experience* app as a confirmation of cases, which are discussed in an analysis section of this study. Most controversial and thought-provoking in-game scenes were reviewed and analysed several times by multiple revisions of extracted video material. Recordings imply all the required details, in particular pictures, sound and subtitles. Additionally, during the playthroughs, notes were collected mainly as a means to simplify the process of searching for the desired in-game scene. After completing the recordings and before the factual start of a closer inspection, the table, containing this textual data from video material was created. Subtitles were typed manually as I was not able to gain access to the official scripts of the project. The

table was divided into several separate tables that involve four columns each: Original version, transliteration, direct translation and localisation. Texts in these tables are analysed from the linguistic point of view and various versions of the manuscript are compared according to the translational transformations research provided primarily by Molina et.al., (2004), Komissarov (1990) and Grassilli (2013, 2016). The observation of examples from a linguistic perspective serves as a starting point for configuring the direct translation option. This perspective embraces such branches as semantics and *syntax*<sup>4</sup> that are effective in terms of exploring the original wording, forming a preliminary ground for composing the most similar translated option. Phonological and morphological sides, which Lapham (2022) refers to as sound combination and internal structure of lexical units, appeared to be effective when generating transliteration from the source text, using alphabetical symbols of the target language. The last stage is following the interpretation and special translation techniques accompanying it; these procedures actually appear to be the tools for organising the practical research and they also deliver the essential comments, discussions and suggestions, forming the body of the analysis section.

Apart from the tables, several specific internal situations were also indicated not by embedding them into the table, but as a distinct section with screenshots, taken from the video game. The purpose of this kind of separation consists in demonstrating an actual technical drawback, related to the connection between texts, characters' articulation, sound and subtitles. The aspect is not based on the script version comparison but on the manner these scripts were technically implemented into a particular in-game situation. In general, all the material I have succeeded in collecting so far appeared to be my own game experience and obviously, other players can also come across similar cases and catch in mind the ideas, presented in this thesis. Even then, samples are reviewed and analysed with the support of background information, provided by research in the area of translation, investigators' ideas and theories. Comments and suggestions from the author of the current investigation are also enclosed. In the following chapter, I will review the video games that were convicted of containing a number of potentially interesting cases from the perspective of localisation and translation.

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<sup>4</sup> Syntax is an examination of sentence configuration (Lapham, 2022). <https://www.languagehumanities.org/what-is-linguistic-analysis.htm>

## 4 Analysis

This chapter begins with an introduction to the game, *Metro Exodus*, that will be analysed. It is important to describe the structure and premise of a project in order to properly interpret it, especially when particular controversies about the game mechanic emerge. The next step is attaching textual data or visual materials and inspecting the original and the localised scripts in the context of specific in-game situations. In addition to comparing word variants and familiarising with the in-game situations, the translational techniques provided by Molina and Albir (2004) are implemented into the practical research with a focus on explaining the selection of a particular method and its operational suitability (see table 1).

### 4.1 Metro Exodus Overview

*Metro Exodus* is the third game of the *Metro* trilogy, actions take place in 2035, after the events of previous games (*Metro 2033*, *Metro: Last Light*). The franchise of these FPS projects started with a novel *Metro 2033* by Dmitry Gluhovsky in 2005. After gaining popularity not only in Russia but in some other countries, the Ukrainian game development studio *4A Games* launched the production of the game series. The events of the universe are taking place in post-apocalyptic Russia and concentrate primarily on Moscow city. The first part of the game immerses players deep into the dark tunnels of the Moscow metro system, teeming with mutated scary creatures, hostile inhabitants and radiation. Only occasionally players are allowed to escape to the surface and explore the ruins of the destroyed city. The final chapter of the story became available for users in February 2019 and in contrast to previous parts, the habitual concept radically changed. One of those modifications is changing the policy of inventory use when the character is out on the mission. Regarding utilities, the technical aspect of game testing does not offer anything completely unique to the player, except such novelty as upgrading and cleaning the weapon, producing grenades and throwing knives, and crafting medical kits while being far away from the safe areas with workbenches and traders. In his article, Lowry (2022) points out the superiority of this game among others, achieved by implementing the in-game menus, designing them as a part of the in-game world, as a diegetic element of the user interface. This type of conversion can also be characterised as the transformation of non-diegetic UI elements into diegetic, feasible for users' avatars and

influencing the degree of immersion. This idea, delivered by Andrews (2010) was discussed in a more detailed way in Subchapter 2.5.5

The enhanced space of locations delivers the main difference. The areas in which players' character exists for a certain period of time are definitely vast and these environments require quite a time if you are willing to explore them. The system also involved the map itself, which is a paper atlas of a specific area the player is in and it is attached to a leather tablet with objectives and quests on the other side of it. Regarding the genre of the investigated video game, *Steam* (online game platform) provides a *Metro Exodus* game page with several markings and one of them is *open world*. It would be possible to assign this specific project under the *dynamic open-world* games as there is no one gigantic territory but several spacious levels, and districts that the player is passing through on a locomotive to reach the end of the story. However, this notion also serves as an aspect of not defining *Metro Exodus* as an open-world game. The project is not similar to such open-world video games as *Fallout 4* or *Witcher 3*, where the player gets one vast territory with internal natural borders, so the character is allowed to move in any direction and return and all events occur in one area. In fact, 4A Games introduced a *pseudo-open-world* project with several locations separated from each other, that users are not allowed to move between at their own request. In his review of *Metro Exodus*, Adams (2019) delivers a simpler interpretation of game identity:

Is *Metro Exodus* open world? If your definition of “open world” is “a game taking place on one map”, then no, and your ability to free roam will also be limited in that regard. If your definition is “some parts of the game allow a lot of freedom to explore”, then the answer is yes. (p. 5)

In addition, even combining all these zones into one entire territory would not still reproduce the game into a full-option open-world alternative. The matter is these maps comprise intrinsic and significantly smaller quest sectors, which the player is approaching without an opportunity to escape from until completing the objective. The protagonist may on purpose fall into the hole of a shelter beneath the ground as the mission marker is indicated directly on this specific place on the map. In this case, the player has to accomplish the received task and find the way out of this closed, corridor location. Another aspect of this pseudo-open-world category is splitting the area. For example, the player successfully progresses through the level and suddenly stumbles upon a ropeway across the river or a deep ravine. The character uses the ropeway to reach the other bank of the river or jump down into the gully in order to get to the opposite side of it. These steps



## 4.2 Linguistic Analysis of Translation

This section introduces speech options, provided by various in-game characters and represented in visual and sound form. Textual data was observed and preliminarily analysed in the process of playtesting for the purpose of including or leaving it out of further analysis. There was a lot of material to look through as nearly each cue was examined. The potentially valuable options were extracted by converting subtitles and the following voiceover into a separated document. Comparisons between the two language groups of subtitles were organised using 4 lined tables. In order to deliver an opportunity for English-speaking readers to pronounce original versions of texts in the Russian language, transliteration was attached to all examples, except the one in Figure 11, which indicates a discrepancy in the English visual and sound versions of the character's cue. Every case comprises a detailed analysis of involved translational transformations and a comparison of original and localised options from a linguistic perspective. These instances were selected from a diversity of in-game situations because of the more interesting and ambiguous issues, emerging in these contexts. Many localised cases possess ordinary alterations and similar techniques. That is the reason why examples with remarkably different structural and semantic aspects were chosen.

Table 3. Translation of toponyms

<b>Original version</b>	Запись: Станция Ботанический сад
<b>Transliteration</b>	Zapis': Stanciya Botanicheskij Sad
<b>Direct Translation</b>	Record: Botanical Garden station
<b>Localisation</b>	Voice from the radio: Botanical Garden station...

Interestingly, all the stations in the Moscow metro system are converted into English by way of *transliteration*, which is defined by Komissarov (1990) and introduced in Chapter 2. It was done to provide a better comprehension between the English-speaking people and native-speaking inhabitants of the locale. Pronouncing the name of a particular station in familiar Latin letters but in the Russian manner will help to deliver a sound form which is used among the locales and save the toponymic aspect which will be more presumably understood by Russian speakers. Using the directly translated title will apparently cause confusion during communication. As shown in Table 3, the localised version “Botanical Garden station” is interpreted with the *calque* technique. The term is discussed in table 1. This transformation is commonly utilised while translating toponyms (directly and

defined by Grassilli (2016) as *orthographic calque*, which emerges in transliteration of names of people and places. This approach stands to reason as it delivers the comprehension of how the name of the place is perceived by source language speakers and with which term it may be associated.

Pointing out the time frames (when the lip movement period should coincide with articulating both versions of the text), this specific cue is vocalised by an invisible in-game character, so there is no strong necessity in following the time limitations. This is another reason submitting an enhanced word combination. “Запись” (Zapis’) is interpreted as “Voice from the radio” because the recording is played from a tape on a radio receiver. The *particularisation* approach (Table 1) was utilised, as localisation concretises the fact that the sound originates from the radio receiver and a more specific term is used. In reverse order, the word “Запись” in the original version, directly translated as “Record”, can act as a *generalisation* of the localised option “Voice from the radio”. Furthermore, Molina and Albir (2002) suggest that the word count increase is achieved by *amplification*, which is conditioned by the implementation of extra information into the TT (target text). According to Khaled (2022) such transformation can be also titled as *expansion*.

Table 4. Amplification and interesting transposition in original language

<b>Original version</b>	Запись: Полисовские их изучают...
<b>Transliteration</b>	Zapis’: Polisovskie ih izuchayut...
<b>Direct translation</b>	Record: Polis people are studying it...
<b>Localisation</b>	Voice form the radio: Polis people are studying it...

At first glance, Table 4 seems to demonstrate the amplification technique. “Polisovskie” is identical to “Polis people” and the initial text could have contained “Polisovskie ludi” (Polis people) but for some reason script writers decided to leave the shortened version. The thing is that originally, the word “polisovskie” was converted from combination of noun and adjective that was reproduced in English form. Therefore, recalling Table 1, it is possible to refer to such operation as *transposition* with further amplification. Transposition is conditioned by the shift between the world classes: “polisovskie” (a nominalised adjective in the Russian language, designating the inhabitants of *Polis*, which is a combination of several stations in the *Metro* games universe, forming some semblance of a city) and “Polis people” (noun, determining the affiliation of another noun). In addition, Polis is literally referred to term “city”, used in ancient Greece. Consequently, the current instance also implies the calque technique as this borrowed language unit was translated

word for word. Despite its adaptation in the Russian manner, it still preserves the preliminary form “Полис” (in Eng. - Polis).

Table 5. Shift in point of view and loss of expressiveness

<b>Original version</b>	Местный житель: Опять Артём по поверхности шастал... Делать ему дураку больше нечего
<b>Transliteration</b>	Mestnyy zhitel': Opyat' Artyom po poverkhnosti shastal... Delat' yemu duraku bol'she nechego
<b>Direct translation</b>	Local: Artyom's again been roaming the surface ...This fool got nothing to do than this
<b>Localisation</b>	Local: Looks like Artyom's been on another one of his mad trips up top...

From the table above we can see that the phrase “Looks like” does not exist in the original version. This phrase in TT replaced the word “Opyat” in ST, which is commonly interpreted as “again” or “once more”. If the localised version performed the adapted sentence similar to direct translation, it would have been possible to pertain to the *compensation* approach (Table 1) because the semantic significance of the unit “again” (adverb of indefinite frequency) would be reimbursed in another part of the sentence without loss of meaning. However, it is possible to detect the word “another”, referring to the word “trip” in the localised version, which semantically compensates for the absence of “again”, assigned to the in-game character. Both the original and localised sentences express the same idea but are cognitively different. This is a sign of *modulation* (Table 1). Moreover, the second part of the original cue, serving as an additional comment on the situation, can be also alluded to as modulation. This extra part was reduced by replacing it with substituting for one single word - “mad”. This adjective is barely but still able to convert several word combinations into one unit. The opinion of the local about the in-game character being a “fool” and having “...nothing to do than this” is interpreted just as a “mad trip”. The speaker of the cue is not visible, so the synchronisation of facial motion is not required (Bernal-Merino, 2014). The duration of both, original and translated replicas is almost identical. The interpreted version of the text is pronounced by the orator in a slower fashion and articulating the suggested direct translation would have taken 0.2-0.3 seconds more than the average time of used voiceover. Contrary to expectations, this part was not translated.

The Russian name “Артём” is transferred into the English version “Artyom” using transliteration for composing a letter combination and *transcription* (Subchapter 2.3.2) while articulating the name in the game. Moreover, in comparison to the localised version, the direct translation supposes to have the verb “to roam” instead of “to be”, because in the



original version, the word “шастал” (shastal) possesses a colloquial use, instead of common interpretations of verbs “to be” or “to walk”. A probable explanation for this transformation is that cultural substitution or *adaptation* (Table 1) was utilised in order to intensify the stylistic value and expressiveness by introducing the slang unit.

Table 6. An attempt to transfer a phraseological unit

<b>Original version</b>	Анна: Ты меня окончательно со свету сжить решил? А что если ты в следующий раз... не вернешься?
<b>Transliteration</b>	Anna: Ty menya okonchatel'no so svetu szhit' reshil? A chto yesli ty v sleduyushchiy raz... ne vernesh'sya?
<b>Direct translation</b>	Anna: Did you finally decide to hound me to death? What if next time...you won't return?
<b>Localisation</b>	Anna: Are you trying to kill me with worry? What if next time you don't return from the Surface?

The top of the table performs the phrase “со свету сжить” (so svetu szhit') or the directly translated version “...to kill with worry”. In the Russian language, “szhit' so svetu” serves as a phraseological unit, which means “creating the unbearable living conditions for someone”. In case, the localised version would have implied the identical phrase with the same semantic message in the target language, it would be possible to define the transformation as *equivalence* (Table 1). The translated version encompasses the word combination “...trying to kill...”, which is a quite generalised and simplified option for such an idiom. A more accurate translation, combining the application of the equivalent detection method, would have been provided with such English analogues, as “hound to death” or “worry to death”. In addition, the name “Анна” (Anna) is calqued into localisation with English option “Anna”. The second part of the translated cue possesses the location “Surface” from which the player's character, according to the in-game conversation, is not expected to return. Localisers decided to use the amplification method and supply some information about the place.

The last but not the least is tense usage, which seems to be incorrect in the second part of the localised cue. The particle “if” does not make the sentence conditional, where a specific order of tenses must be upheld. On the contrary, the question demonstrates prediction for the future based on own inferences (inferences of NPC). This feature is an indicator of future tense which is supposed to be used instead of the present simple tense.

Table 7. Inversion of sentence's elements and expansion in localised version

<b>Original version</b>	Мельник: Ты из ордена ушел ради этого... И я тебя тогда понял, хотя после Д6 людей жуть как не хватает...
<b>Transliteration</b>	Mel'nik: Ty iz ordena ushel radi etogo... I ya tebya togda ponyal, khotya posle D6 lyudey zhut' kak ne khvatayet...
<b>Direct translation</b>	Melnik: You left the order for the sake of this... And I understood you then, although after D6 people are terribly lacking...
<b>Localisation</b>	Miller: The order is short on men after the battle for D6, but you leave! People need you and you pursue your selfish obsession!

The most interesting aspect of the example, mentioned in the table above is that the whole sentence in the original language may be translated with the first part of the English version, skipping the last phrase. English translation misses the crucial point, that was mentioned in the original, the fact that *Miller* understood, accepted and allowed the recipient to leave. However, in English, it sounded like a full accusation and this is the main issue of this case; in the original version, the NPC expresses the discontent but still articulates an understanding. The part “...хотя после Д6 людей жуть как не хватает...” (after D6 people are terribly lacking...) was relocated to the beginning of the replica by way of *inversion* (Molina & Albir, 2004) or *permutation* (Gritsay & Vodyanitskaya, 2021) and turned into “The order is short on men after the battle for D6,...” with further amplifications. The role of the word “order” and its position in the text was changed, substituting the connection “You (Player character) left the order...” with “The order is short on men...”, thus making it a subject of the sentence. The phrase “...sake of this” in direct translation from the original was converted into “...pursue your selfish obsession”. It is possible to define particularisation here, revealing the viewpoint of the speaker through localisation. By this, Miller expresses his dissatisfaction about Artyom’s risking his life in mortally dangerous districts on the surface of Moscow.

Table 8. Reverse translation of a greeting

<b>Original version</b>	Сэм: Хай, Артём!
<b>Transliteration</b>	Sam: Hai, Artyom!
<b>Direct translation</b>	Sam: Hi, Artyom!
<b>Localisation</b>	Sam: Privet, Artyom!

The example in Table 8 indicates another interesting example of using borrowings from the target language in the original version of the game. Despite the fact, according to the lore Sam is represented as an in-game character from America, the greeting sounded

differently in both versions of the game. “Privet, Artyom!” in English, which means “Hello, Artyom!”, and “Hai, Artyom!”, where “hai” is a Russian transliteration of “hi”. These two words from different languages were interchanged. Sam is well known for his broken Russian accent among his in-game friends. Sometimes he can use English words in Russian sentences, but the idea usually remains comprehensible. The greeting “hi” (hai), due to my experience, has penetrated to Russian language and it is quite often used in routine conversations. At the same time, localisation specialists borrowed the Russian equivalent “Привет” (Privet) and implemented it into the English version even though it seems to be not commonly used in the target culture. Such a decision is likely to introduce some linguistic confusion to English language speakers and translators were not able to perform Sam’s identity as an American character. Only his name can lead players to the idea that he is a foreigner in the world of *Metro*.

Table 9. Borrowing of original interjection, preserving the letter and sound composition

<b>Original version</b>	Доктор: Да, Артём... Вам бы поберечься, не рисковать зря... Даже если где-то еще есть выжившие, нам они не помогут...
<b>Transliteration</b>	Doktor: Da, Artom... Vam by poberech'sya, ne riskovat' zrya... Dazhe yesli gde-to yeshche yest' vyzhivshiye, nam oni ne pomogut...
<b>Direct translation</b>	Doctor: Well, Artyom... You should be careful not to risk in vain... Even if there are survivors somewhere else, they won't help us...
<b>Localisation</b>	Doctor: Artyom...Just try to take better care of yourself, da? Even if you find someone else out there, they probably have their own troubles...

What stands out in this table is the particle “Да” (Da). In the Russian version, it is positioned at the beginning of the sentence and serves as an interjection. It does not add an exclamation to the replica but adds a note of frustration and dissatisfaction thereby intensifying the expression of the utterance. In the event that localisers decided to put it into the same location in the translated version, they should have used the semantically equivalent particle, like “Yeah” or “well”. This lexical unit may seem to be complex as in the Russian language it can operate as an interjection, particle or conjunction, depending on the place and context. However, in localisation, this unit was borrowed (even though it has an equivalent, which is “yes”), transliterated and positioned (inversion) at the end of the sentence, before the question mark. In that way, it will also function as an interjection, encouraging the interlocutor to respond. Thus, the interpretation of “Da” can be defined either by transliteration (SL letter combination is converted into the TL letters) or by *borrowing* (text is directly taken from the original and carried over into the TL).

Considering borrowings, this technique is commonly applied when there is no equivalent in the target language. By contrast, the unit “Da” possesses a lexical match in this situation, which was already mentioned. A likely explanation is that such transformation was applied on purpose to create an intercultural connector for English language speakers for better immersion as this is not the only case of transferring Russian lexemes.

The localisation of the last sentence of the cue appears to relate to the modulation approach. In the direct translation section, it is possible to observe a direct interpretation of the original version “...they won’t help us...”. However, translators invoked changing the view, excluding the option “they won’t help us” and replacing it with “they have their own troubles”. The perspective has changed; however, the cognitive element of the replica was preserved. Semantically, in a particular context, the phrase “to have own problems” indicates the inability to help or the fact that a person is very busy.

Table 10. Sarcastic aspects of antonymic translation

<b>Original version</b>	Анна: Да еще эти, вон ... Красавцы... Летают там, каркают...
<b>Transliteration</b>	Anna: Da yeshche eti, von ... Krasavtsy... Letayut tam, karkayut...
<b>Direct translation</b>	Anna: Yes, and these, over there ... Beauties ... They fly there, croak ...
<b>Localisation</b>	Anna: A, yes, and there’s also those damned things... Cawing all the time.

The cue, performed in Table 10 introduces a small comment about one of the flying creatures, existing on the surface of post-apocalyptic Russia in the *Metro* universe. Among the in-game characters, these predators are known as “demons”. In the localised option, this flying monster was offended by being named a “damned thing”. However, in the Russian version, they were *ironically*<sup>5</sup> described as “Красавцы” (Krasavtsy), which can be literally translated as “beauties”. Two stylistically various terms that are used for defining a specific creature do not make any sense if taken separately from the context. That is why it is significant to emphasise the connection to the original denomination of the beast, which is “demons”. In the original replica, Anna expresses irony when using an irrelevant but comic word. Irony serves in this case as a tool for embodying the emotional state and expressiveness of a text. It is probable the antonymic translation emerges here,

<sup>5</sup> According to Merriam-Webster (n.d.), irony is “the use of words to express something other than and especially the opposite of the literal meaning”. In this source, irony is also defined as a comic or humorous manner of expression of an object or situation.

because to some extent, “beauties” and “damned things” can be represented as opposite meanings. Even though the localised phrase sounds more like an offence, discontent or even fear, it still delivers emotionality and expressiveness as well as the ironic use of the original phrase. However, in a study investigating irony, Празян (2011), (as cited in Зайцева, 2014) reported several pragmatic ways of delivering irony and some of them are conditioned by resentment, dislike and contempt. This evidence suggests that the original phrase and its semantic element were transferred into the target language by modulation with preserving the irony. It seems possible to define this viewpoint shift, conditioned by two different perspectives (original and target culture), aimed at expressing the same idea.

Table 11. The challenge national identity transfer

<b>Original version</b>	Сэм: Только, плиз, не как в прошлый раз!
<b>Transliteration</b>	Sam: Tol'ko, pliz, ne kak v proshlyy raz!
<b>Direct translation</b>	Sam: But please, not like in last time!
<b>Localisation</b>	Sam: Please, let's not repeat last time!

Another common use of borrowed English words can be seen in the table above. The word “please” is commonly utilised in contemporary Russian society as “плиз” (pliz). The case is that for Russian players, Sam’s broken Russian language with English accent is a normal occasion. But for an English-speaking audience, this transfer from the strange Russian - English pronunciation (to which they already got used because of other NPCs) towards a quite fluent English language appears to be weird. Amplification can be also detected, as the phrase “...let’s not repeat...” does not exist in the original version though it could have been there. However, this type of transformation was executed as the bare word combination “...not like in last time...” appears to be insufficient and lexically inaccurate in the target language. It requires a determinant (verb “repeat”) because in the source language, the expression already implies the aspect of act repetition.

### 4.3 Technical aspects

In addition to the textual alteration, it is important to pay attention to the technical issues of the video game adaptation process as they may directly affect the way wording or texture are represented. Questionable matters are likely to appear either in language translation or during various technical processes, such as graphics and sound execution. For example, sometimes words, articulated by in-game characters do not perform the

accompanying word in the subtitle. They are invisible to a player as a UI element on the screen. There are even situations when NPCs cues are pronounced but not reflected on the screen at all. In these instances, if such a drawback needs to be mentioned in the research, the preliminary aim is to extract the audio version of the text, articulated by the in-game character. It is important to listen to the speech of the speaker in both language settings in order to inspect if the same matter occurs in the other option (original or localised) of the video game.

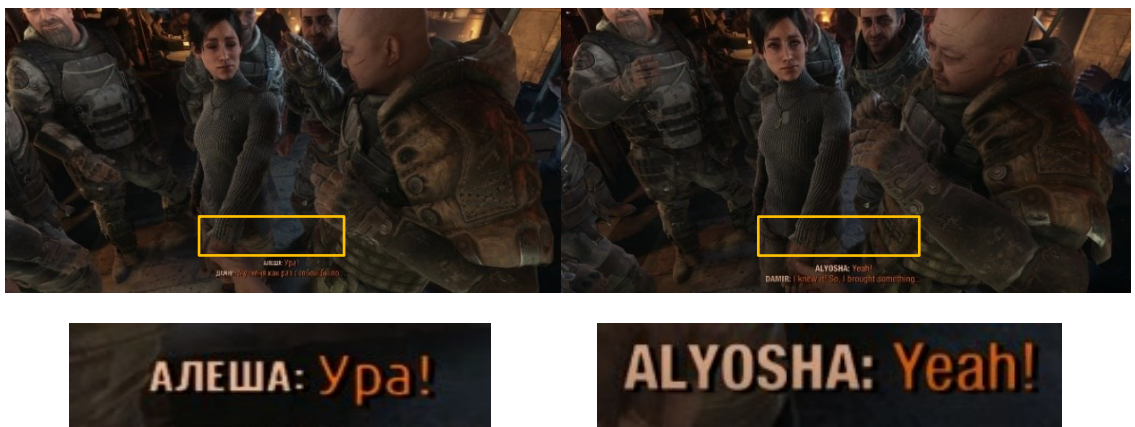


Figure 9. Collision of multiple subtitles

The figure above illustrates the same scene, extracted from the playtesting sessions of two language settings of Metro Exodus. The main character has just recovered after a deadly trip through the tunnels of the Moscow metro. The picture demonstrates the moment when Miller said that Artyom’s friends have two hours to relax, they all rejoiced and started throwing comments about this great opportunity to have a small rest. The flow of speech was endless and parallel and generally, only long sentences were subtitled; simple and short phrases such as “Yeah” or “great” or other exclamations were omitted. Because the text in subtitles and voice sources were rapidly changing. However, one of these words of joy was still embedded into the subtitles.

Table 12. Disruption of subtitles’ flow

<b>Original version</b>	Алёша: Ура!
<b>Transliteration</b>	Alyosha: Ura!
<b>Direct translation</b>	Alyosha: Hurrah!
<b>Localisation</b>	Alyosha: Yeah!

This word is the only one from those exclamations to be visualised and it appeared probably for half a second and then vanished. Playing the game and even staring at these subtitles would probably not help you to notice, what the NPC was saying. It occurred

and disappeared with lightning speed. The cue, indicated in Table 12, was pronounced by several people. However, only one person was set as a speaker of the visually demonstrated text. There is no mistake in the localisation of the rapid flow of the subtitles. In this case, the English version fully repeats the subtitling manner without extra additions, omissions or structural transformations of the text. It is almost certain that translators completed the interpretation correctly and provided sameness, structural similarity and delivered the idea. The main confusion was instigated by the original subtitles, The writers of the original script neither added to the speaker role all the characters, that were articulating the same phrase (e.g., Alyosha, Sam, ...: Hurrah!) nor they completely excluded it from being visualised on the screen. However, no attempt was made to attach subtitles to the voicing of in-game characters in the case, presented in Figure 10.

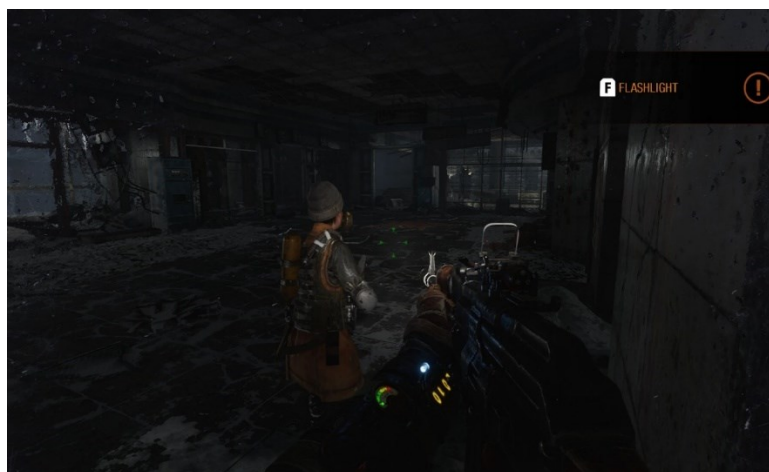


Figure 10. Absence of an accompanying subtitle

The main character Artyom and his partner Anna were wandering on the surface and accidentally came across the area where watchmen resided. The territory with these dangerous mutants was rather dark and I decided to switch the flashlight on. During the first gameplay in the English version, I turned on the light and Anna didn't react to it, whereas in the Russian version, she asked to turn the light off. When playing the second time in the English language, I did the same thing and Anna finally ordered me to switch off the source of light. Interestingly, there were no subtitles for this phrase in both versions of the game. Screenwriters decided to leave the phrase without the accompanying text even despite the fact there were not any non-stop cues, causing the emergence of a rapid flow of subtitles as demonstrated in Figure 9. In fact, these two cases may not appear to be a technical defect but a peculiarity or intentional insertion or omission of a certain subtitle, based on specific circumstances. The most important thing is that this is not the fault of

the localisation specialists as appearing or non-appearing subtitles were already determined by game developers in the source language.



Figure 11. Lack of correlation between sound and visual version of speech

The figure above illustrates an inconsistency between the speech of the character and its textual option, represented in a subtitle. This issue occurred during the cutscene. While walking around on the surface, Artyom and Anna were caught by a hostile fraction, beaten by soldiers and finally taken into the enemy vehicle. The player’s character was knocked down and then he woke up during the conversation between Anna and the troopers.

Table 13. The sound cue and the accompanying subtitle

<b>Sound cue</b>	Anna: Artyom! Thank God... These people, they’re Hansa, not the Order... Assholes!
<b>Subtitle</b>	Anna: Artyom! Thank God... These people, they’re Hansa, not the Order... The assholes!

This instance was detected in the English version of the game. The most interesting aspect of the subtitle, illustrated in Table 13 is not how it was translated and what transformations were engaged, but the relation between the text on the screen and the sound cue. Anna is pronouncing her replica according to the subtitle except for one word - “The”, which is located before the curse word “assholes”.

On the question of visual materials in video games, textures are also susceptible to transformations. As was already mentioned, *Metro Exodus* is not a common project in terms of adaptation, as the process itself was organised in parallel to the development of the game. According to a video by *Buka Entertainment* (2019), the development was initiated in the Russian language and after a while, the translation into English started; Buka was mainly providing sound and voiceover for the project but also cooperated closely with 4A Games on translating texts. Contrary to expectations, this study was also aiming at



detecting cases of graphical localisation. The localised version of *Metro Exodus* does not suppose embedded textures to be altered but in some situations, developers ingrained a pop-up translation of several textual elements which the player will come across during the testing session. These auxiliary UI elements do not emerge when the PC is entering a specific area (like the names of locations, emerging while the character moves in a particular zone in some games). To instigate the emergence of the English interpretation you must move closer to a certain inscription and point the crosshair at it.



Figure 12. Representation of in-game text signs and symbols

As can be seen from the figure above, the background text on the graphical element remains the same in both versions of the game. The only distinction consists in the emerging message “SIGN: Abandoned station” in the English version. In some cases, deep graphical modification avoidance is achieved by attaching a word in the target language on the texture with the source language word. Such an instance is demonstrated in the bottom picture of Figure 12. In terms of textual translation, there is also a controversial point, because the lower yellow sign, which basically means biological hazard or “Biohazard” as shown on the sign. The subscript “Опасно” (Opasno) in the Russian language, which is located lower, actually means “Danger”. Such an option was chosen probably because of the small space on the paper with a sign, as the full definition of this symbol in Russian is “Биологическая опасность” (Biologicheskaya opasnost'), the definition equivalent of which is “Biohazard”. However, as the procedure of designing the game and localising it

was proceeding together, this matter could have been solved by expanding the background paper with a sign, delivering more space for texts. Moreover, the English “Bio-hazard” (the reduced option of “Biological hazard”) could have been replaced with a Russian shortened version “Биоугроза” (Biougroza). The upper sign with a skull was not provided with any English comment and in general; both signs on the lower image in Figure 12 were not indicated with the pop-up translation.

## 5 Discussion

The objective of this study was to investigate the process of localisation, its phases and how it is commonly engaged in a particular video game. The significance and the accuracy of a good, professional video game adaptation have been considered the pivotal aspect of this study. Comprehension of cultural collisions and methods of their adjustments in diverse in-game situations has forced game developers to practically recreate the same project with the help of intercultural modifications. This chapter reviews ideas and concepts that were achieved by analysing and comparing multiple theoretical perspectives, provided by different sources and researchers. The concept of localisation in this study is outlined as a procedure, constructed from various suggestions and comprehensions. This kind of data provides essential background for organising an optimal structure with sufficient descriptions of every single phase of the operation. The reason for selecting translation as a specific aspect of video game adaptation is discussed as well as the process of its utilisation on the example of *Metro Exodus*. Methodology section assists in explaining the tools that were used to extract the target data which is then examined in an analysis section through several tables and figures, containing the comparison of textual and visual material of different language versions of the video game.

Localisation is the main subject of investigation in this thesis. Similarly, to a diversity of other interesting concepts, this operation involves different perspectives that commonly contain some contrasting aspects. In terms of gaining comprehension of the phenomenon in this study, Esselink's (2000) definition of localisation as an operation, comprising cultural and linguistic modifications of the product, intended to be distributed and used among users of a particular area or region seems to be sufficient and comprehensible. Certain transformations can be applied or avoided according to the transfer of semantics and perception to the target market, as was illustrated on the example of several games in Chapter 2. However, this study investigates cultural aspects not just as distinct points and cases, requiring observation and correct interpretation. Every stage of the process is somehow connected to the alteration between two diverse societies, where cultural expectations and preferences are of primary importance. Obviously, this relates to the technical modifications (textual alteration, visual and voice accompaniment and other components)

that provoke the emergence of intercultural controversies and questions that require corrections.

To better understand the mechanisms of localisation and its effects, Honeywood (2011) analysed the operation in his *Best Practices for Game Localization* draft and finally presented an overall structure of the process, describing every stage in detail. According to Honeywood (2011), localisation is supposed to contain these phases: 1) familiarisation, 2) glossary and style guide creation, 3) translation, 4) voiceover recording, 5) linguistic quality assurance, 6) master up and sign-off. This categorisation was taken as a template for this study in order to compose a descriptive step-by-step theoretical knowledge, familiarising a reader with the area-specific engagement of adaptation. However, the structure was modified to some extent by introducing an extra stage and as can be seen from Figure 6, the organisation of the process remained the same except for one level, which was added during the theoretical analysis of other potential systematic approaches to localisation. Honeywood's interpretation of the video game adaptation process (2011) distinguished such practical elements of game adaptation as voice-over recording and translation but missed one of the most significant tools of culturisation - visuals. Textures, graphical symbols and scripts, visually perceived by a player, are also susceptible to deep analysis in frames of intercultural adaptation. As was already mentioned in Bernal-Merino (2014), Chandler (2005) reported that a proper localisation is supposed to comprise visual materials such as "layered art files", "localisable graphics-embedded text and logos" (p. 192). Discussing this level of game modification, figure 4 compares two versions of the video game *Wolfenstein* (original and localised) and the case is described by Bernal-Merino (2014) and Fehrle and Schäfke-Zel (2019), who pointed out the significance and reason for this type of alterations. According to this investigation, graphic modifications of video games are a part of practical interventions in the game. This is the reason for outlining this stage with audio and textual adaptation sections. Taken together, theoretical data, provided for every phase of localisation, assisted in composing a general structure of the process, indicated in Figure 6. This scheme appears to be the most appropriate and comprehensible for this study. Moreover, the system was supplied with several crucial elements, such as parallel adaptation, implemented during the process of video game development. This kind of strategy is usually applied in order to deliver the opportunity to change and adjust the game code, related to alterations between both language versions of the project before the product is completed (Bartelt-Krantz, 2011). This view is also supported by Chandler (2005), who refers to this approach as simultaneous

shipment, which is beneficial in terms of decreasing income from distribution on grey markets and meeting the expectations of users, perceiving the advertising campaign and terms of issuing a video game.

As explained earlier, the process of video game adaptation implies several pivotal procedures, applicable to specific elements of the project. One of them introduces translation as an option for interpreting not just characters' speech and subtitles, but other game-related scripts, inherent in different sections of localisation. The evidence presented in this study confirms that most data, liable to alteration, is textual material. Software and scripts – text, in-game speech and subtitles for further voiceover – text, paper or digital brochures and internal pictorial aspect as an element of the game world environment – text. This view is supported by Bernal-Merino (2014), who examined localisation stages as textual assets, categorising them in: in-game texts, art assets, revoicing and subtitling. In addition, he provides a separate distinction for these printed or displayed hardware and software technical requirements, recommended for better game performance, and refers to them as a technical type of video game translation.

At first glance, concentrating on the translation of a particular game appeared to be an ordinary and simple procedure. However, moving closer to a genuine translation indicated a diversity of strong connections between other adaptational subdivisions. It was thought to be a usual translation of text with further analysis of intercultural linguistic transformations. Searching for and analysing practical material from a game, peculiar to one of the main localisation stages, looked like a genuinely fruitful and interesting exploration. On the other hand, the required theoretical and practical material for each section seemed to be excessive for one study. Nevertheless, during the process of outlining theoretical backgrounds, textual data appeared to envelop several classes of modifications. Consequently, practical examination of one word, phrase or sentence from a certain localisation process could emphasise an important matter of the same case from another perspective. For example, inspecting a cue of an in-game character for the presence of any translational approaches during interpretation from the source language to the target language is practically referred to as the translation process. The techniques that are commonly utilised during the adaptation of text are shown in Table 1. At the same time, either original or target versions of the script are possible to be visually represented on the screen by way of subtitling, which may contain a dissimilar word organisation or other interesting peculiarities. Moreover, the sound form of the same textual element is also subject to the divergence between its original literal version and graphical implementation. These

findings have important implications for analysing a case from the perspective of one localisation area, which is likely to progress to valuable investigation from other related positions. These results corroborate the findings of a great deal of the previous work in localisation studies, provided by Chandler et al. (2011), Esselink (2000), Honeywood (2011) and Bernal-Merino (2014), who perceive the operation as complicated and multi-lateral procedure. This is a significant point of the thesis, which outlines the role of translation in the whole adaptational process; the observation may somehow make readers keep in mind the fact that the localisation of video games is not only translation. Even though textual alterations are probably occupying the largest and most significant area of the whole procedure, localisation still implies translation and not vice versa.

The methodological aspect of the study implied the possibility to select a suitable tool from a diversity of approaches. Methods do not directly suppose own unique research of a particular project by the author. In this case, game testing conducted by the thesis writer functions more as supplementary material rather than the fundamental approach. These combined techniques are likely to instigate fruitful comparative analysis, but this study aims to perform the individual experience. Interestingly, in order to organise a convenient and phased analysis of the *Metro Exodus*, a combined approach was implemented. By this, I suggest merging two methods into one mechanism, uniting their objectives and introducing consistency. A major advantage of such a strategy is the assignment of responsibilities when the process is clearly structured by detailed stages and proper flow. A combination of game testing and formal analysis methods generates the most optimal investigation strategy, where the first unit is operating as a harvester, detecting and extracting potentially interesting and pertinent material from the game while the second component determines the relevance of the data and provides deep analysis from a particular perspective (probably, determining the relevance can be also attributed to the first method or be perceived as a connecting link between these two phases). Analysis was based on the conceptual framework of playtesting technique proposed by Creswell (2014), who emphasised the significance of multiple game-playing sessions in frames of testing a diversity of in-game options. Consequently, samples were examined with formal analysis as previously reported by Lankoski et al., (2015), where the selected cases were investigated from the particular focus of interest, relevant for this study. This scope implies researching game elements as a part of intercultural adaptation decisions in its textual, visual or audio configuration, not to mention the semantic transfer. Narrowing down the strategy, game-related scripts were set out to be the major analysis object due to their

sufficient amount and that is the point, where formal analysis finally flows into linguistic inspection and reviewing various translation techniques.

Some cases, that were extracted and examined in the analysis section, already possess descriptions of the situations and comments about applying a certain translation transformation. Implementing the observations into every single instance appears to be more beneficial in terms of organising a convenient flow: table with original and localised versions of text - analysis, assisted by translation transformations - commenting and reporting author's ideas and suggestions. In any case, other chapters with all their theoretical material instigating their own small surveys still need to be mentioned. Before diving into the practical inspection of translating the video game, *Metro Exodus* was discussed from the genre point of view. The project was expected to be an open-world option and Figure 8 was designed in order to claim the opposite. The levels are outlined with borders and characters' routes. According to Adams (2019), in genre relation, the video game depends on users' own perception of the open-world aspect. The correlation between open-world and non-open-world games is interesting because players chose the option, based on their own experience and in contrast to other projects. Diverse categorisations of what is an open world and what it is not, depend on their own aspects and backgrounds. In this vein, a video game can be referred to as a particular genre but cannot be titled as such due to another perspective. Therefore, this particular study represents this "another perspective" by perceiving such projects as *Witcher 3* or *Fallout 4* to be open-world video games. In his review of *Metro Exodus*, Hopkins (2019) pointed out that the game flow or events, that obtain some common features with open-world projects are not open-world games in general terms. He claims that the player is still expected to "follow the path of the story, going to each location in sequence" (para. 7). According to these data and Figure 8, we can infer that *Metro Exodus* possesses some aspects of an open-world project but still can't be equated with genuine representatives of the genre. That is the reason for labelling this specific game as a pseudo-open-world project.

Text-related cases are interesting in terms of applied translation strategy and how this strategy was realised. For the purpose of delivering a high percentage of comprehension, every instance was supplied with: 1) Original version of the text (in the Russian language); 2) Transliteration (described by Komissarov (1990) as a graphic form or letter composition of the Russian version, represented in English letters); 3) Direct Translation (a simple alternative interpretation of the text without considering beneficial translational techniques); 4) Localisation (the final translated script, used in target language version of

the game). The most significant background material for investigating localisation and applied translational approaches was implemented in Table 1, where methods, provided by Molina et al., (2004) were explained. After reviewing the cases, it was possible to claim that *amplification*, *modulation* and *borrowings* are the most common approaches in textual translation between Russian and English languages. The first two methods have a similar manner of modifying the flow of the cue. The structural systems of the English and Russian languages are different. Consequently, no wonder that inversion is among the most common alterations, as changing the position of sentence elements is a normal practice during translation. The *reduction* can also affect the configuration of the sentence or phrase and be controversial in its implementation. Textual contraction and extension may be linked to the translator's way of thinking and desires. There is sometimes no consistent pattern or reason to drop half of the script even if the flow and semantic element will be preserved. In this manner, the translation is commonly delivered in a way to avoid players' confusion, but the sufficiency of the phrase or sentence will probably be lost. An example of this is indicated in Table 7, where the localised version was expanded with an extra phrase, which does not possess an equivalent in the original version. In this particular case, the whole source phrase can almost entirely be interpreted by the first sentence of the localised version. Nonetheless, the translator resorted to subjective opinion, which actually makes sense in the conversational flow of the target language version but disrupts the original idea.

In addition to inherent features of translation transformations and their application, a broader drawback with titling and detecting the applied methods lies in the preliminary outlined structure for them. Tronch (2022) demonstrated the possibility of fusion or division of translational transformation. In that case, some techniques may be linked to one general category. As was mentioned in Chapter 2, Grassilli (2016) introduced nominalisation and verbalisation as tools for converting a certain word class into another. In fact, it is possible to locate it as a subdivision of Molina et al., (2004) *transposition* technique. Another example is *transliteration* and *transcription*, introduced by Komissarov (1990). As noted by Grassilli (2016), these approaches may be linked to a *calque* category, established by Molina et al., (2004) and described as a *literal translation* in *What are the main techniques of translation?* guide.

By way of illustration, the above-mentioned terms can be linked to the translation of Russian names in *Metro Exodus*, which are likely to deliver certain complexity for speakers of TL to read or pronounce them. Letter combinations of such Russian names as



“Artyom” or “Alyosha” (which is actually a diminutive form of “Aleksei’s” name) appear to be unusual and strange for representatives of non-Russian culture. On the other hand, there is a number of nicknames, used by some characters of the game, like “Idiot” or “Duke”, translated as equivalents or calques from the original language. An interesting example of localising nicknames can be illustrated by such personality as “Святослав Мельников” (Svyatoslav Melnikov), who is the colonel of the Order and Anna’s father. Originally, instead of referring to him by his name or surname, the word “Мельник” (Melnik) was utilised, which was then translated into English as “Miller”. The case is that the nickname “Melnik” was formed from the surname “Melnikov” by way of nominalisation. If we take this word out of the context of *Metro Exodus*, in Russian it will directly mean a profession of a person, who is operating a mill. Thus, the surname was generated from the eponymous speciality. That is the reason for interpreting such a code name with a proper equivalent in TL. However, the relation between the factual surname and the established nickname can be traced back to native speakers of the Russian language, whereas foreign audiences are less likely to perceive such a phenomenon. The idea of actual affinity between “Melnikov” (which would have been transliterated with the same letter combination) and “Miller” is alien to non-Russian users, playing the localised version. If the colonel would have been referred to as “Melnikov” and then the subtitle would display his reply with a “Miller”, such an occasion would have delivered a certain degree of confusion in understanding who is the actual recipient and why names are various. Additionally, it is worth mentioning that sometimes Miller can be referred to as “father” (when his daughter Anna is addressing him) and “colonel” (when subordinates are addressing him).

Returning to the subject of translation transformations comprehension, it may be the case therefore that these variations deliver uncertainty and complexity in the process of outlining the general classification of textual interpretation approaches. According to these examples with the designation of in-game characters, we can infer that event names and nicknames can be translated in a different manner regarding the situation. Moreover, these modifications can be titled with a specific term, provided by a certain source and still such transformations can be perceived and defined differently from other perspectives. The point is to organise this flexibility in one comprehensible structure for further convenience in applying or referring to them. There are no correct or incorrect translational technique categorisations, they are customised according to the needs of the researcher.

With regard to visual modifications, the weakness of *Metro Exodus* as a project, analysed from a localisation perspective is the lack of genuine texture alterations with the purpose of meeting the cultural requirements of the target market. Furthermore, even common graphical scripts, implemented in the visual surrounding of video game levels, were not localised in the way they were embedded. Instead, the localisation of these background textual elements was introduced with pop-up phrases, emerging if a character is standing close and staring at the table or sign, as indicated in Figure 12. This type of approach demonstrates the similarity to the subtitling process when cues of the in-game persons are displayed on the screen as UI elements. In contrast to *Metro Exodus*, there are some video games that possess graphical modifications, embedded during the localisation process. *Dead Space 3* is one of the projects, which can be opposed to the investigated video game in frames of different approaches of internal visual adaptation. This is a survival horror action video game, developed by *Visceral Games*. The overall voiceover in *Dead Space 3* is organised in English and a player is only able to change the language settings in the Steam library (clicking *Properties* and selecting the necessary language). In this case, the game will run a short update and after that, all the UI elements, either diegetic or non-diegetic will be adjusted. The concept of diegesis and non-diegesis in video games was discussed by Andrews (2010) in Chapter 2. Diegetic elements are pivotal in this particular instance as these are directly related to the background textures in *Dead Space 3*.

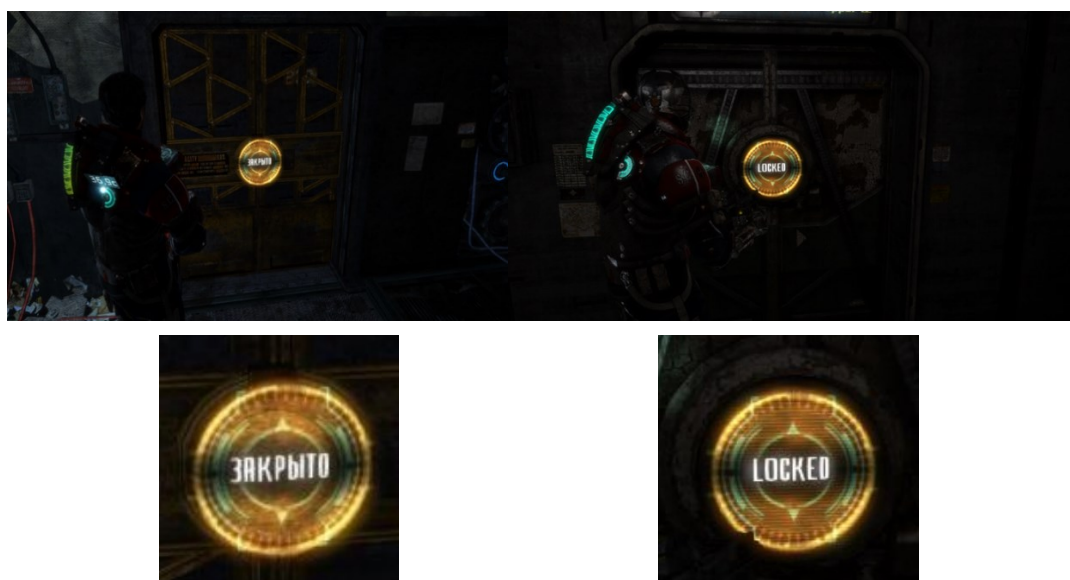


Figure 13. In-game translation of dynamic diegetic signs on the example of *Dead Space 3*

The figure above shows one of the doors, separating rooms inside spaceships and buildings on various levels of the game. The entrance permission sign is projected on the door and either the player or the PC can actually detect it. When moving closer, the status of

the gate will pop up, indicating the status of the gate. As can be seen from these screenshots, the one on the left performs the translation into the Russian language while the right picture implies the text in the original language (English). These manuscripts and their visual translation appear to be crucial for a player and gameplay itself; a likely explanation is that these elements coordinate players' movements around the location and lead the character to the completion of a certain objective. This kind of adaptation was not implemented in the localisation of *Metro Exodus*. Signs are dynamic, so they are possibly more complex in terms of localisation, comparing to the static textural elements. Despite this, localisation specialists managed to introduce various language options for corresponding target groups of users. However, in some situations, static manuscripts and signs e.g., those on the walls of various locations did not undergo changes. For example, in different locations of *Dead Space 3*, a player can come across the wall sign "No Smoking" which was not localised and English text remained unchanged in both versions of the project. Similarly, to the case, indicated in Figure 13, this particular in-game spot includes dynamic location titles or directions, defining a zone a player is going to approach by entering the door. In contrast to the mechanics of the previous textual element (Figure 13), this specific inscription is not popping up when a character moves closer, but it is a running line, permanently rolling from one side of the board to another regardless of player character location.

These findings may help us to understand that the depth and complexity of localisation mainly depend on the needs of developers and their plans regarding game distribution. Turning back to *Metro Exodus*, a likely explanation for substituting these deep technical modifications of textural scripts for a simple text on the monitor lies in the localisation unit. As 4A Games decided to create the game and translate it simultaneously, the company was not supposed to appeal to foreign companies for localisation. All the operations were carried out in one place.

Another possible explanation for eluding the total extraction of Russian texts would be also saving the atmosphere of the Russian apocalyptic world, which is hard to reach without the native language. This view is supported by Davenport (2019), who reflects his commitment to authenticity and provides a comment about using the original language:

Russian is an alien language to me, and so is *Metro's* post-apocalyptic world. It's set in Russia, too, so it's just a better fit. Just pick up the keywords, listen to the local language to reinforce the fact that, yes, you are in Russia, and carry on. It's much better. (para. 4)

Touching upon the experience of playing *Metro Exodus*, some English-speaking players may even consider playing the video game in the source language, using English subtitles for obtaining comprehension of a particular situation. In the same vein, Meer (2019) in his article notes:

For all I know, the Russian voice acting is even sillier, but to my heathen ears playing it with voices matching its Moscow setting, translated by English subtitles, makes for a vastly more atmospheric ride on the deathtrain. I wouldn't play *Metro Exodus* any other way. (para. 2)

Apart from using a collaboration of SL voiceover with TL subtitles, there is an idea of the intentional implementation of genuine Russian words in the target version of the game that can be linked to borrowings. These cases can be commonly detected in NPCs' cues as those illustrated in Tables 8 and 9. As a result, we again come across the categorisation aspects of translation transformations, because the direct transfer of words (that actually possess equivalents in TL but were completed on purpose) in the tables mentioned above is impossible to reach without transliteration (reproducing letter composition) or sometimes transcription (sound composition). A researcher can resort to borrowings if a general classification of the matter is needed or use transliteration and transcription techniques in a more detailed analysis of a particular case. Calques and literal translation also take place and are closely related to borrowed lexical units. These approaches are invoked depending on the specific contexts and specific words. The most crucial inconsistency is conditioned by a discrepancy in the interpretation of these techniques, introduced by different sources. That is the reason why utilising and referring to one certain source or researcher is significant in conducting translational analysis.

Returning to Table 8 and considering Table 11, it is interesting to discuss such in-game personality as Sam. As was mentioned in the previous chapter, in the original version of the game he is an American. As the lore is the same for both versions, he ranks as a foreigner also in a localised version. However, the national identity of Sam is represented differently and the essence of this character has probably delivered a certain degree of complexity while localising *Metro Exodus*. Such borrowed phrases, such as "Hi" or "please" in Sam's speech, combined with a strong accent serve as an indicator. Sam's broken Russian language with an English accent is quite noticeable. Screenwriters managed to distort a common Russian speech and compose a unique speaking manner. In the case of localisation, every English-speaking NPC in the game uses elementary word constructions and articulates with an extremely recognisable and stereotypical Russian

accent, brightly emphasising hard consonants and avoiding word fusion. Despite this, Sam's articulation style sounded like a genuine English speech, which I did not hear from other characters. This is one possible approach to demonstrate to the target language audience the difference between Sam and other characters. It is almost certain that native English speakers will detect the gap in language proficiency levels and figure out who is a local and who is a foreigner. Additionally, the name is also a clue in this case. What is then the matter of introducing borrowed words from the Russian language into Sam's cues? Taking a step back, this method would assist in emphasising the Russian identity of the foreigner, like it was made in the original version of *Metro Exodus*. Probably, localisation specialists felt like demonstrating the fact that Sam is able to communicate in the original language. But it does not make as much sense for target language speakers. A reasonable approach to adjust this issue could be to exclude Russian words from Sam's speech because his superior English articulation already defines his origin for players and the in-game community, whereas borrowings provide confusion for the target audience in the localised version.

The current data highlight the versatility of applying or not applying certain translational transformations in the video game *Metro Exodus*. The omission of localisation of some elements encouraged to convey the atmosphere and flavour of Russian culture. If the game possesses a diversity of internal culture-related artefacts for emphasising local community and lifestyle, the preservation of audio and visual textual elements will only enhance players' immersion.

## 6 Conclusion

This industry comprises a great number of game companies and developers all over the world with the task to present something innovative and unique to the audience. In order to reach a target market and be distributed, projects are commonly adapted for each location, considering the necessary aspects.

The aim of the present research was to examine the process of localisation, how it is commonly applied in the sphere of video games and what phases are included in such an operation. The concept of a video game was discussed from the perspective of intercultural essence. Considering background research, it is also important to indicate the idea of comprehending a particular video game as a media product (Anisimova, 2018), which requires specific adaptation for the purpose of being distributed to the target market. Together with introducing the term *localisation*, small theoretical research of existing adaptational cases was organised. The stated games were presented in this thesis due to the unique modifications, utilised because of political, historical, religious and other aspects, inherent in certain countries and regions. Several theories, provided by Esselink (2000), Chandler and Deming (2011), Bernal-Merino (2014) and other researchers assisted the exploration of video game adaptation in outlining the essence of localisation and the vagueness and structural impermanence of this process. Therefore, this study has identified the flexibility and versatility of the video game adaptation procedures on the example of Honeywood's (2011) standard localisation structure. This specific template was taken as a basis for the current investigation and then adjusted according to the needs of the research. Finally, a localisation scheme, supported by a diverse spectrum of researchers' concepts and assumptions, was designed. The first aim was set to indicate the process of constructing the localisation individually, customising stages and aspects according to the requirements of the designer. The final version of the localisation structure is presented in Figure 6.

The second aim of this study was to investigate a chosen video game. As was mentioned in the theoretical section of the study, a video game is a software project, which implies the interpretation procedure as an essential element of software localisation. Chandler and Deming (2011) classified the general concept of video game adaptation and divided it

into linguistic and technical categories. Despite the cultural and semantic nature of the linguistic analysis of the text, the collaboration of language interpretation and technical modifications plays a significant role in the area of video game localisation. Passing through the real complexity of indicating the challenge of explaining various perceptions of culture-related matters brought me to the analysis of translation in *Metro Exodus*. What makes these texts sound weird or inappropriate for the localised version? The answer is the target audience and translators. People outside the process of interpretation cannot follow the translator's flow of thoughts, application of translational methods and what guided the specialists while selecting an adequate (for the specialist, not necessarily for other people) equivalent of a specific cross-cultural essence. The diversity of translation transformations and their description was introduced in Table 1. This classification of interpretational techniques that was identified by Molina et al., (2004) assists in our understanding of tools for linguistic analysis and adaptation of text. However, the flexibility of organising such a categorisation is comparable to that mentioned in outlining the localisation operation. In the same vein, translation transformations may be perceived and titled differently in various sources, which introduces a certain degree of complexity to conducting textual analysis. The basic classification by Molina et al., (2004) was expanded with studies, provided by Grassilli (2013, 2016), Komissarov (1990) and other researchers for the purpose of including extra methods and distinct comprehension of established translation shifts. In this regard, it seems almost impossible to determine any universal translation strategies.

A variety of controversial and interesting adaptational decisions of *Metro Exodus* were detected. The comparison of textual components, either original or localised, appears to be the main point of interest in localising video games. At least, this aspect is a concept of conducting an analysis of translations for the current study. The major volume of research was obtained from several contextual in-game cues. These tables, illustrating differences in the original and localised version of the game confirmed that these cases involve a diversity of translation tools, applied for transferring the semantic element from Russian reality into English. Moreover, these findings contribute in several ways to our understanding of textual translation not only as a technical procedure of transferring the meaning and order of lexical elements but as a mode of transforming an original cultural element into an approximate and comprehensible equivalent in the target version of the project. Consequently, the goal of localisation should, first of all, imply preserving the game experience, atmosphere and immersion that the game delivers to the user. This

approach seems to be most appropriate in the case of video games that are saturated with specific and unique cultural entities that therefore present the highest complexity for translators.

This study was limited by the absence of actual texture modifications, intended for the distribution of the localised version. During playtesting sessions, I was not able to detect any alterations in the graphical surroundings of the *Metro Exodus* locations. This inconsistency may be since 4A Games themselves were engaged in the development of the project and simultaneously localising the game. Therefore, they would not possess enough time to consider all the visual elements on the subject of eligibility of distributing the project in certain areas. I was expecting the project to be localised by a separate specialised unit after the development process is completed. In this instance, the process of video game adaptation is unique in terms of positioning this operation and the localisation unit is expected to adapt a project individually for every target market. However, the absence of this option in *Metro Exodus* has probably excluded any potential culture-specific visual modifications, that are significant for the current research. Considering textual alterations, it is quite difficult to unambiguously evaluate the results, because the translation controversy and periodic semantic distortions can be attributed to the intention of the developers. They were possibly aiming at composing an English version of the game different from the Russian one. It is unfortunate that the study did not include the translation of multi-choice cases, even though some of these situations were examined during the process of testing. That would have brought more materially expanded cases but the procedure of extracting would have also been more complex in terms of replaying a particular in-game situation twice in both language options.

Further research is required to determine whether there are other crucial and relevant adaptation decisions in *Metro Exodus* because I was not able to analyse the game from beginning to end in frames of localisation. Firstly, what is now needed is a cross-national study involving interviewing method. A beneficial but complicated way would be to find several representatives of different cultures and, consequently, language options, available for testing the video game (German, Spanish, French, Italian, Japanese, Ukrainian). The main obstacle lies in the fact these interviewees should operate with the Russian language closer to a native level and be aware of cultural aspects of Russian reality. In this case, a better option would be to omit interviewing approach and repeat the investigation on the international level, where interested people can conduct their own research, utilising the methods, involved in the current survey. Such research would probably detect



a number of valuable cross-cultural modifications and weaknesses in their implementation. Secondly, more research using different video games is needed to disclose the whole essence and full-fledged influence of localisation on project alteration. Conducting analysis on various projects will more likely lead to unique findings and results. In addition, selecting more projects for localisation analysis may assist in encountering a broader multi-choice system (e.g., *Witcher 3* or *Fallout 4*). In this respect, the analysis from diverse cultural perspectives are likely to provide a large amount of data, which appears to be an advantage for the current topic. Finally, investigating localisation not as a part of development (which was the case for the current research) but as a distinct operation on the example of certain video games is beneficial as it would introduce a different perspective and probably fruitful results.

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