

Towards a Multimodal Methodology for the analysis of translated/localised games

Por uma Metodologia Multimodal para a análise de games traduzidos/localizados

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ABSTRACT: Multimedia materials require research methodologies that are able to comprehend all of their assets. Videogames are the epitome of multimedia, combining images, sounds, videos, animations, graphics and texts with the interactivity factor. A methodology to conduct research into translation and localisation of videogames should be able to analyse all of its assets and features. This paper sets out to develop a research methodology for games and their translations/localisations that goes beyond the collection and analysis of “screenshots” and includes as many of their assets as possible. Using the fully localised version of the game Watchdogs, this paper shows how tools and technologies allow for transcending the mere analysis of linguistic contents within multimedia materials. Using software ELAN Language Archive to analyse Portuguese-language dubbed and English-language subtitled excerpts from the videogame, it was possible to identify patterns in both linguistic and audio-visual elements, as well as to correlate them.

KEYWORDS: Translation and localisation. Videogames. Methodology. Multimedia.

RESUMO: Materiais multimidiáticos requerem metodologias de pesquisa que abrangem todos os seus recursos. Jogos eletrônicos são a epítome da multimídia, reunindo imagens, sons, vídeos, animações, gráficos e textos ao fator da interatividade. Uma metodologia de pesquisa para a tradução e localização de jogos eletrônicos deve ter o potencial de analisar todas essas características. Este estudo tem como objetivo desenvolver uma metodologia de pesquisa de games e suas traduções/localizações que vá além da coleta e análise de “print screens” e abranja a maior quantidade possível dos seus elementos. Utilizando a versão totalmente localizada do jogo Watchdogs como material de pesquisa, mostra-se como ferramentas e tecnologias possibilitam analisar mais do que apenas o conteúdo linguístico de materiais multimidiáticos. Aplicando o software ELAN Language Archive à análise de excertos dublados em português e legendados em inglês do jogo em tela, foi possível identificar padrões em elementos linguísticos e em elementos audiovisuais, bem como correlacioná-los.

PALAVRAS-CHAVE: Tradução e localização. Videogames. Metodologia. Multimídia.

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1. Introduction

According to Gambier (2006), monomodal texts, in the strict sense, do not exist; there are rather texts combining different semiotic resources. Videogames probably are the best example of this multifaceted characteristic of texts in the present days. However—and this is especially true when it comes to studying game translation and localisation—the focus in academic research has been limited to the linguistic features of most multimodal texts. Gambier (2006, p. 6-7) argues:

There is a strong paradox: we are ready to acknowledge the interrelations between the verbal and the visual, between language and non-verbal, but the dominant research perspective remains largely linguistic. The multisemiotic blends of many different signs are not ignored but they are usually neglected or not integrated into a framework. Is it not a contradiction to set up a data base or a corpus of film dialogues and their subtitles, with no pictures, and still pretend to study screen translation?

Although Gambier referred specifically to the field of Audiovisual Translation, game translation and localisation “suffer” from the same fate: Studies have either used transcriptions of in-game dialogues and other strictly linguistic elements, or been based on screen captures of the specific in-game situations. Using such a methodology implies neglecting a great number of the assets that compose a videogame and is prone to mine the scope, if not the scientific validity, of the analysis of game translation and localisation. Along with the technological developments in the game localisation industry should come more systematic, efficient, technology-based methods to approach and analyse such multimodal texts. The main goal of this paper is to propose a new model of analysis that is able to comprehend as many assets from both original and translated/localised games as possible, thus paving the way to the establishment of a satisfactory, standard methodology to approach multimodal texts. Portuguese-language dubbed voiceover and English-language subtitle excerpts from the fully localised game *Watchdogs* (Figure 1), as well as categories developed within Audiovisual Translation theories, are used as a case study to show the potentials of the methodology herein proposed.

Figure 1-- *Watchdogs* case cover.

Source: author's personal records.

2. Theoretical framework

Localisation means adapting a product to a specific locale, i.e., a country or territory that possesses its own culture and language(s). To localise a game is to adapt not only its linguistic assets, but also anything that may alert the foreign players to the possibility that the game has not been originally made for them (O'HAGAN; MANGIRON, 2013; CHANDLER; DEMING, 2012). It implies that the main goal when localising a videogame is to make sure players of the target versions will have the same gaming experience as the ones of the original version.

The focus on game translation and localisation processes and products as objects of study has been increasing in academic and scientific research since 2005, when scholars started to conceive of this practice and product as a sub-area of translation studies that needed to be theorised and reflected upon (O'HAGAN; MANGIRON, 2013). Therefore, research into game translation and localisation is incipient from the perspective of translation studies, which still lack consistent methods and methodologies that are compatible with all the particular needs of videogames as the epitome of multimedia materials.

In addition, if game translation and localisation in general have been barely explored within translation studies, the analysis of fully localised versions with available dubbed voiceovers is even more incipient. What little has been said about it is based on the Audiovisual Translation (AVT) theories (O'HAGAN; MANGIRON, 2013).

This research did not aim to deeply explore AVT theories of dubbing. Therefore, the approach is only superficial and limited to borrowing most of the theoretical framework from

Díaz-Cintas's (2009) compilation on the subject in *New Trends in Audiovisual Translation*. One of the papers included in this compilation is that by Pettit (2009, p. 45), who considers, from a pragmatic and semiotic point of view, "how the interplay between image, sound and target text affects translation strategies in operation." This study builds on the concepts of a few translation strategies shown in Pettit's research, who, herself, drew upon Tomaszekiewicz's (1993, p. 223-227 apud PETTIT, 2009) theory on the subject. This research uses these translation strategies as categories to "describe the processes which occur in the dubbed versions, showing the extent to which one strategy is preferred over another according to the audio-visual mode of translation" (PETTIT, 2009). The strategies are as follows:

- (1) Omission, whereby the cultural reference is omitted altogether.
- (2) Literal Translation, where the solution in the target text matches the original as closely as possible.
- (3) Borrowing, where original terms from the source text are used in the target text.
- (4) Equivalence, where translation has a similar meaning and function in the target culture.
- (5) Adaptation, where the translation is adjusted to the target language and culture in an attempt to evoke similar connotations to the original. Strictly speaking this can be considered a form of equivalence.
- (6) Replacement of the cultural term with deictics, particularly when supported by an on-screen gesture or a visual clue. [...]
- (7) Generalisation, which might also be referred to as neutralisation of the original.
- (8) Explication, which usually involves a paraphrase to explain the cultural term. (PETTIT, 2009, p. 45)

3. Methodology

This study took place in four stages, namely: (1) researching theoretical background and previous papers on the subject; (2) searching for the tools that would enable the achievement of the study goals; (3) exploring the selected tools and collecting data for the following analysis; and (4) performing the actual analysis of the collected data with the selected tools.

In the first stage, a tendency to one-dimensional analysis was identified in the few papers on this matter: researchers have either captured screenshots of parts of the games under scrutiny and performed their analyses thereof, or worked on the transcriptions of the in-game texts, which implies neglecting several other assets that compose the game, such as cinematic and art assets. Some of these papers include Mangiron and O'Hagan's (2006) "Game Localisation: Unleashing Imagination with 'Restricted' Translation", Souza's (2013) "Venuti e os

videogames: o conceito de domesticação/estrangeirização aplicado à localização de games”, and Colleti and Motta’s (2013) “A localização de games no Brasil – um ponto de vista prático”.

After this assessment of the available literature, tools were searched aiming at a more comprehensive analysis of (most of) the assets within a (translated/localised) game. The object of study was also selected at this point—the game *Watchdogs*, by developer Ubisoft, which has been fully localised in Brazilian Portuguese and was shipped simultaneously with its original version in May, 2014.

Watchdogs was chosen not only because it has many translated/localised elements (box and docs, subtitles, menus, in-game texts, and voiceovers), but also because it is available for PlayStation 4, which is a console with built-in hardware that allows game capture in high definition in an integrated and facilitated way. This mechanism starts automatically once a game is launched, and the resulting file is saved upon the gamer’s command, which is a simple hit of a button on the controller.¹ Among the pieces of software that could be used to perform the analysis of the chosen game, ELAN Language Archive² was selected because it is freeware and offers a number of functionalities for annotation, transcription, subtitling, and media synchronisation.

In the last stage, the captured gameplay was semi-automatically analysed drawing on the dubbing theoretical framework provided by Pettit (2009). The dubbed version of the game was set as the version in use during gameplay, along with the subtitles in English, which proved to be transcriptions of the original voiceovers. The videos were analysed according to lip sync (match between sound and mouth movements), camera focus (or not) on the speaker, Tomaszewicz’s translation strategies, and language register.

The first step for handling the data and the software was to segment the gameplay captures³ according to the speech intervals, that is, to select at what time the lines of a character began and ended. Using ELAN’s transcription functionality, the second step was to transcribe both the Portuguese-language localised voiceovers and the original English-language subtitles.

The third and most complex step was setting the program for the aforementioned categorisation of the analysed elements. To this end, the software requires the creation of tiers,

¹ Although this process was designed to facilitate game capture, it still limits the recording time to 15 minutes of gameplay, and unless the player gives the command to save the file, any additional second in a recording entails deleting the same amount of time in the beginning of the file.

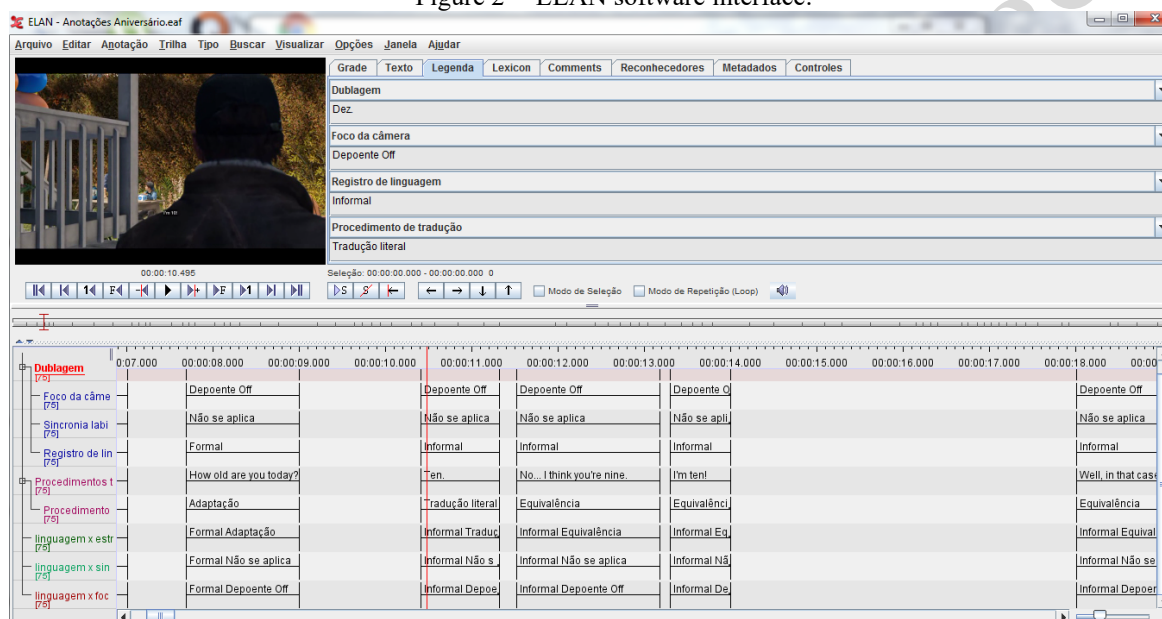
² THE LANGUAGE ARCHIVE. Available at: < <https://tla.mpi.nl/tools/tla-tools/elan/>>. Access on: 20 Nov. 2015.

³ For information on how to capture game video clips, see PLAYSTATION. Available at: < <http://manuals.playstation.net/document/en/ps4/share/videoclip.html>>. Access on: 20 Nov. 2015.

which are the main categories used in this study. More specifically, two mother tiers were created, with two branches deriving from each one: (1) Dubbing (subdivided into lip synch and focus on the speaker), and (2) Translation (subdivided into translation strategies and type of language register).

Figure 2 shows a screenshot of the software interface in use. The video is (re)played on the top left, the tiers can be entered or selected (from a previously introduced list) on the top centre-right, and the track with respective tiers can be viewed on the bottom of the screen.

Figure 2 -- ELAN software interface.



Source: screenshot.

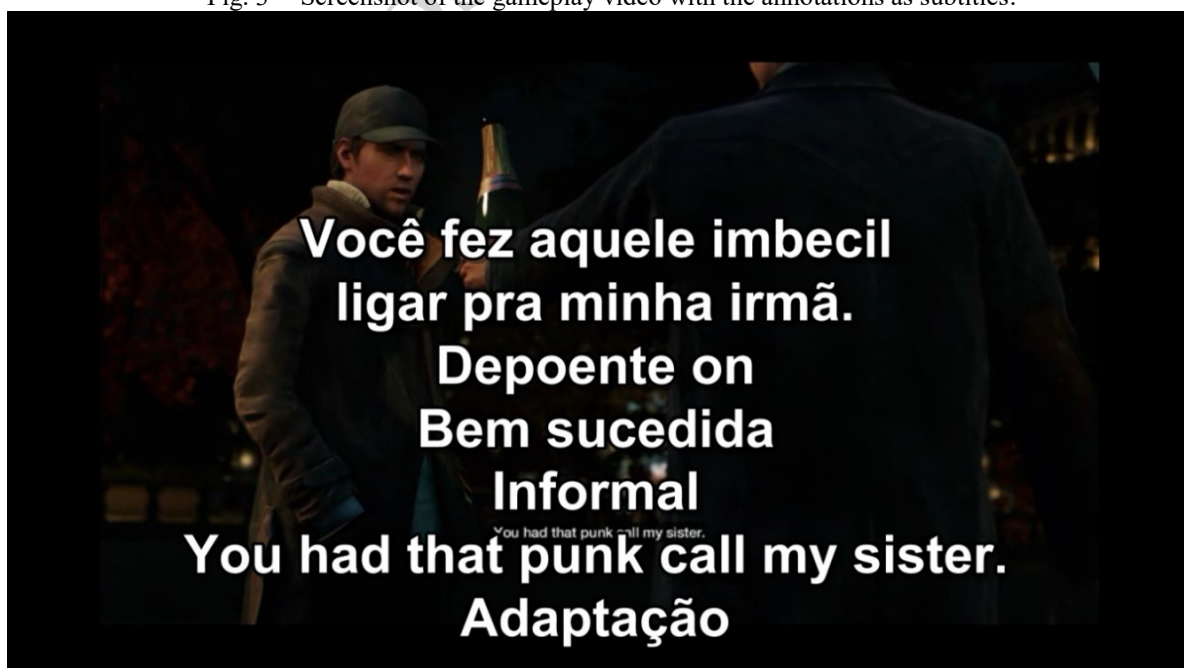
From this point, the annotator can write anything in the tiers, using the segmented intervals previously selected, but it is also possible to create specific lists of potential options for each tier, which the tool names “controlled vocabulary”. In the case of the lip synch tier, the possible subcategories were “successful”, “unsuccessful” and “does not apply” (i.e., no camera focus on the speaker). As for the camera focus, the possibilities were “focus on the speaker” and “focus off the speaker”. In the translation strategies tier, there were eight possibilities, which were based on Tomaszewicz (1993, apud PETTIT, 2009, p. 45): “Omission”, “Literal Translation”, “Borrowing”, “Equivalence”, “Adaptation”, “Replacement”, “Generalisation” and “Explication”. Finally, the options for the type of language register tier were “Informal and context appropriate”, “Formal and context inappropriate”, and “Neutral”. As for the criteria adopted to qualify the appropriateness of the kind of register, the fact that all of the dialogues

contained in the captured gameplay occurred in informal situations led the researchers to consider any use of formal language to be inadequate in all cases. Neutrality was used for those lines that did not present any strong evidence of either register.

ELAN also allows users to obtain cross-referenced data about the created tiers and sub-categories, although that particular functionality does not seem obvious at first glance. By overlapping two or more tiers, the user can get information about how those particular annotations and features overlap; and the statistics of the resulting tier, which the software provides, clearly show how those data relate to each other. In this study, only two tiers were overlapped at a time, and the chosen pairs were: language register and focus of the camera, language register and lip sync, and language register and translation strategy.

After the whole process, the tool offers statistics on the frequency of the tiers and the controlled vocabulary, and it is possible to draw conclusions on the predominance of certain aspects. ELAN also allows the user to export the files in several different formats, and the selected one for the present purpose was .srt (a typical subtitle file extension), which displays the annotations in sync with the videos of the gameplay captures (Figure 3). This is particularly important for allowing easy sharing of data and online viewing of categories as the video replays. In other words, texts and cinematics are analysed concomitantly, rather than in isolation.

Fig. 3 -- Screenshot of the gameplay video with the annotations as subtitles.



Source: Screenshot.

Figure 3 shows a screen shot of the gameplay video with the annotations as subtitles. The first two lines contain the transcription of the dubbed voiceover: “Você fez aquele imbecil ligar pra minha irmã.” The third line contains the type of camera focus: “Depoente on [i.e., Speaker on]” The fourth line contains the lip sync assessment: “Bem-sucedida [i.e., Successful]”. The fifth line contains the language register: “Informal”. The sixth line contains the English-language original subtitle: “You had that punk call my sister.” The last line contains the translation strategy: “Adaptação [i.e., Adaptation]”.

4. Results

This study obtained two results: the ones from the data analysis and the ones from the methodology design itself. The methodological results are provided first, followed by the analytical results.

It was indeed possible to use a more comprehensive method to analyse original and localised games. Many pieces of software, most of them freeware, are available to probe into multimedia materials, and the one selected for this research, ELAN, is an example of it. It allowed for a much broader analysis of the collected data, and, as stated in the Methodology section, these data were carefully categorised.

This leads to the second approach of this research, which was to use the proposed methodology to analyse the dubbed version of the captured gameplay. The software allowed the researchers to observe lip movement, dubbed voiceovers and transcription of the original audio at once, and thus it was possible to perform the intended analysis.

Using the proposed methodology, the researchers analysed the captured gameplay according to the mentioned parameters and reached the results shown in Table 1. These results point to a balance between camera focus on and off speaker (130 vs. 109 occurrences), predominance of successful lip sync (112 vs. 18 unsuccessful occurrences) and informal register (161 vs. 35 formal and 47 neutral registers), as well as predominance of adaptation, equivalence and literal translation strategies (101, 79, and 44 occurrences, respectively).

By using the overlap feature on the aforementioned tier pairs, the researchers were able to reach deeper insights into the localised videogame, such as the main strategies used and the circumstances in which they were chosen. Table 2 shows the statistics produced by overlapping the tiers.

Table 1-- General results of the analysis of *Watchdogs* localised version using ELAN software.

MOTHER-TIERS	TIER	OCCURRENCES
Camera focus	Speaker on	130
	Speaker off	109
Lip sync	Successful	112
	Unsuccessful	18
	Does not apply	109
Language register	Informal	161
	Formal	35
	Neutral	47
Translation strategies	Adaptation	101
	Equivalence	79
	Literal translation	44
	Borrowing	12
	Omission	4
	Explication	5
	Generalisation	11
	Replacement	0

Table 2 -- Results of overlapping tiers and their annotations.

OVERLAPPED TIERS	REGISTER		
	Formal	Informal	Neutral
Speaker on	18	101	18
Speaker off	17	62	29
Successful lip sync	15	83	14
Unsuccessful lip sync	3	12	6
Omission	0	0	1
Literal translation	6	27	13
Borrowing	1	5	4
Equivalence	13	54	11
Adaptation	15	70	15
Replacement	0	0	0
Generalisation	1	7	4
Explication	0	5	0

The data seem to show that the localisers valued the adequacy of the language to the game content, also striving to maintain the lip sync. As for the translation strategies, it is possible to presume that the adaptation and the equivalency strategies, which were prevalently chosen, were used with a semantic and cultural aim, since there were much fewer cases of inappropriateness of register when those strategies were used than the opposite situation. A few

occurrences could be considered mistakes, such as the lack of lip sync (18 occurrences) even though the focus was on the speaker, or the use of formal register when the speaker was off camera and lip sync was not a factor to be considered.

5. Final remarks

With the support of ELAN Language Archive, it was possible to analyse video, audio and text assets at the same time. The software also provides functionalities to support other types of analyses, including, for instance, two synchronised videos, one dubbed and the other one with the original audio, played simultaneously. This feature was not used for not fitting into the scope of this study; however, it is interesting to point out the possibilities offered by the tool. Furthermore, although the chosen framework was the dubbing of the voiceovers in the Portuguese language, especially of the cinematic ones, this software allows several different types of analysis, including of subtitles and dubbing of voiceovers in several different languages.

Taking into account the major growth in the game translation and localisation market and in the demand for localised, highly technological products, it is necessary to approach games and their translations and localisations scientifically, drawing on tools that enable the researcher to probe into these products using fine-grained methods. This need has already been noticed by translation studies scholars, but the trend remains one of limiting analysis to the linguistic aspect of the materials. As stated by Gambier (2006), it is controversial to maintain this line of work when, theoretically, translation studies have acknowledged the importance of the relation between language and the non-verbal component of texts. Such observations have led to the indication that a new way of research is necessary, and proposing such a way was the main goal of this study. After all the stages gone through in this research, it can be affirmed that the first step towards a new comprehensive methodology to study game localisation has been taken, and this path is open for further collaboration and improvements.

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