Subtitling in game localisation: a descriptive study[1]

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In less than four decades the video game industry has become a multibillion dollar worldwide phenomenon. As game technology has evolved, allowing for the inclusion of cinematic scenes in games, dubbing and subtitling practices have become incorporated into game design and localisation. However, while years of research in AVT have led to the establishment of subtitling guidelines, both for intralingual and interlingual subtitles, such guidelines are generally not applied in games. Some games provide subtitles of more than three lines, use small fonts, and do not take into account the established average reading speed. This paper adopts a descriptive approach to the study of current subtitling practices applied in the video game industry. It describes the different features of game subtitles and highlights the need for further descriptive and empirical research that should lay the foundation for the development of game subtitling guidelines.

Keywords: game localisation; subtitling; game subtitling; guidelines; subtitling for the deaf and hard of hearing (SDH)

Introduction

The video game industry has become a multibillion dollar worldwide phenomenon. Video games are entertainment software applications containing text, images and sound that can be played in an electronic platform, such as a PC, a console or a mobile phone.

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They are, therefore, interactive multimedia and multimodal products with a strong audiovisual component, based on complex systems of rules, and designed with the primary function of entertaining, albeit not exclusively limited to that function. Since the early 2000s, games are increasingly featuring in our lives as they are combining their traditional role as entertainment products with other applications, mainly educational and therapeutic.

As game technology evolved and new storage media options were introduced, games started to include more data, more advanced and realistic graphics, and more elaborate storylines. In particular, the transition from CD-ROM to DVD as a storage medium meant that for the first time human voices could be recorded for game dialogues, as opposed to the text boxes that had been widely used until that point. As a result, dubbing and subtitling were incorporated into game design and localisation for the first time. Since then, game localisation and AVT have shared a number of features in common, as many games, particularly role playing games (RPG), action and adventure games, have audio and cinematic assets, including a script, songs, and occasionally an audio tutorial or instructions. Original versions of games contain a soundtrack and sometimes also include the option of displaying intralingual subtitles, while localised versions are either dubbed —if the game is an AAA title, with high budget and sale expectations—, subtitled, or both. As in the case of other audiovisual products, such as movies, the language in games should be natural and idiomatic. Time restrictions for characters' speech interventions, as well as lip synching issues should also be taken into account when relevant, particularly in games containing movie-like graphics. Regarding subtitles, in addition to time and space constraints, issues such as segmentation and alignment should also be considered both for interlingual and intralingual subtitles.

This paper explores the current subtitling practices in games, both intralingual and interlingual, which stand out due to their ad hoc approach and the lack of standardisation. It also compares the main features of game subtitling with more established types of subtitling, such as TV, DVD, and cinema subtitling. Finally, it highlights the need for developing subtitling guidelines in order to enhance readability, comprehension, and playability, which should in turn improve accessibility for deaf and hard of hearing (DH) players and lead to a more satisfactory gaming experience for all players.

Subtitling in Translation Studies

AVT is a well established research area within translation studies that has gained visibility since the 1990s due to the proliferation of audiovisual materials in our society (Díaz-Cintas & Remael, 2007). Subtitling has been studied from many different perspectives, such as the priorities and constraints of this type of translation, subtitling for different media (cinema, DVD, TV, opera, theatre), classification of subtitles, subtitling standards and norms, the translation of cultural references, the translation of humour in subtitling, subtitling for deaf and hard of hearing (SDH) audiences, subtitling by respeaking, surtitling, and fansubbing. Subtitling has been analysed by renowned translation scholars such as Jakobson (1959), D'Ydewalle et al. (1987), Luyken et al. (1991), Ivarsson (1992, with Carroll, 1998), Gambier (1994, 2003), Gottlieb (1994), Remael (2001, 2003), Karamitroglou (1998, 2000), Neves (2005), Díaz Cintas (2001, 2003, 2005, with Remael, 2007), and Matamala & Orero (2010), to name but a few.

Díaz-Cintas and Remael (2007: 8) define subtitling as:

> [A] translation practice that consists of presenting a written text, generally on the lower part of the screen, that endeavours to recount the original dialogue of the speakers, as well as the discursive elements that appear in the image (letters, inserts, graffiti, inscriptions, placards, and the like), and the information that is contained on the soundtrack (songs, voices off).

The main components of subtitled products are the spoken word, the images, and the subtitles, which interact with each other, must appear in synchrony, provide an adequate rendition of the spoken dialogue and must remain on screen enough time for viewers to be able to read them (Díaz-Cintas and Remael, 2007). Subtitling has also been described by Díaz-Cintas as a case of "vulnerable translation" (2003: 43-44). This is because subtitling is subject to severe restrictions of the medium due to the time and space limits affecting subtitles. In addition, the co-existence of the subtitles and the original sound track allows for the comparison between the source text and the target text and may lead to criticism of the translation from viewers with a good knowledge of the source language.

Subtitling practices vary across different countries and companies, but several attempts have been made to provide guidelines in order to standardise subtitling practices and set some minimum standards regarding issues such as: spotting, layout (position, characters per line, number of lines, alignment, etc.), duration, condensation, segmentation, and linguistic and cultural issues. The first proposal concerning good subtitling practice was made by Ivarsson and Carroll (1998) in their *Code of Good Subtitling Practice*, endorsed by the European Association for Studies in Screen Translation (ESIST) and considered the standard by most professionals (Díaz-Cintas & Remael, 2007). Karamitroglou (1998) suggested a slightly different set of guidelines for the production and layout of TV subtitles in Europe. Díaz-Cintas put forward some

guidelines for subtitling in Spain (2003) and Díaz-Cintas & Remael (2007) provided recommendations at European level. From an industry perspective, Ofcom, the independent regulator and competition authority for the UK communications industries, also recommends a set of guidelines for good subtitling practices[2]. Despite the fact that such guidelines are not binding and that they vary to some extent, they share many features in common and are widely adopted by subtitling companies and professional subtitlers. Academics and lecturers of AVT also generally use these guidelines to train future subtitlers, such as the well-established six-second rule for a two line subtitle addressed to an adult hearing audience.

Game subtitling in Translation Studies

Despite the fact that subtitling for what could be considered more established media, such as TV, cinema and DVD, is a thriving area of research in translation studies, subtitling for newer electronic media, such as video games, multimedia products and software applications, remains largely unexplored to date. Díaz-Cintas and Remael briefly refer to this topic when they state that "computer games and interactive software programmes are taking subtitling to the borders between AVT and localization since these games travel not only subtitled, but also adapted to the cultural sensibilities of the target gamer" (2007: 13). However, they do not delve into this topic in their otherwise exhaustive work.

Fernández (2007) presents an interesting case study about the localisation of the adventure game *Code name: Kids next door. Operation V.I.D.E.O.G.A.M.E.* (2005), where she analyses the quality of the subtitles, which do not follow the guidelines proposed by the industry and academia. The length of time subtitles stay on screen varies considerably, with two line subtitles of 91 characters remaining on screen for 4.6 seconds, subtitles that are only displayed for half a second and subtitles that are shown

for 11 seconds. This is clearly not appropriate for a game that is addressed to younger children, who have a slower reading speed. In addition, segmentation of subtitles in this game does not take into account the semantic or the grammatical unit. As the font of the subtitles used in the game is consistently white, they are non-legible when they appear above a white or light-coloured image. There are also some dialogue scenes at the start and the end of the various missions that are not subtitled traditionally, but appear in a text box. The translation tends to include everything said in the original, without condensation, and is made of six lines with 40 characters per line, which remain on screen as long as the character's intervention, with the result that sometimes it is not possible to read them completely. As an example, Fernández mentions a subtitle text box with a total of 141 characters that remains on screen for only 8 seconds. Clearly all these examples do not follow the standard guidelines proposed by scholars and professionals, and are likely to have a negative impact on the gameplay experience of the target players. Game players adopt a more active role than spectators of non-interactive audiovisual products, as they are prompted by the game to take specific actions. Therefore, if players miss out on important information, due to sub-standard subtitling, they may not be able to perform some of the tasks they need to perform in order to be able to progress in the game.

In his PhD thesis about the parameters for the classification of subtitles, Bartoll (2008: 308-309) includes a brief section about subtitling in games. He highlights the fact that game subtitles, unlike subtitles for other media, may appear in text speech bubbles, as in comics, and the fact that they tend to be interlingual and rarely intralingual. However, this descriptive study has shown that this situation is gradually changing and a considerable number of games now include intralingual subtitles, as it will be further explored in this paper. Bartoll also highlights the fact that the degree of

reduction found in game subtitles is less than that of other audiovisual media because they are mainly action-driven and contain little verbal information. While this is the case in certain game genres, such as puzzle, platform and sport games, other genres, such as action, adventure and RPG, include a high volume of text and dialogues that need to be subtitled, such as the *Mass Effect* (2007∽) or the *Final Fantasy* (1987∽) series. Bartoll also lists the following features of game subtitles: they can combine monochrome and polychrome fonts; they use different types of fonts; they can be static or dynamic, and they can be presented in different parts of the screen: bottom, top, sides, and inside speech bubbles. Indeed, as highlighted by Bartoll, subtitles in games present a wider variety in terms of layout compared to other types of subtitles, due to the more ludic and playful nature of the video game medium.

Game subtitling: types and levels of subtitling

The decision to support subtitles in a game should be made at the design stage, in order to avoid having to do costly or lengthy modifications to the game code, as subtitle displays in games must be programmed individually for each game. One of the more common ways of doing so consists of using a text file document, often the script, to hold the information regarding who is speaking, what they are saying, and the time at which it is said (Kimball, 2005). Then a scripting system extracts the data and uploads it to the video display component of the program. With this system, subtitle text files can be easily generated and modified, usually from the script of the game (Kimball, 2005).

In the case of interlingual subtitles, translators usually work with a text file or a spreadsheet containing the script, which often they have to translate without having access to the original game. Translation for the subtitles is done directly in the file, and

no subtitling application is used, contrary to what is usually done for subtitling other audiovisual products, such as movies, where special software applications are used.

Types of game subtitles

Game subtitles are usually optional; that is, they are not enabled by default and the player must choose to switch them on at the settings menu. As previously mentioned, there are two types of subtitles in games: intralingual and interlingual. Despite the fact that nowadays many games include intralingual subtitles, a relatively high number of them can still be found without subtitles due to game developers' lack of awareness about accessibility issues. Some examples of games that do not contain subtitles are *Project Zero* (2003), the first two games of the *God of War* series (2005~), *Battlefield: Bad Company* (2007), *Spiderman 3* (2007), *Stuntman Ignition* (2007) and *Army of Two: The 40ᵗʰ Day* (2010). Some game series that did not include subtitles in their first titles, such as the *Half-life* (1998~) series incorporated subtitles in subsequent versions after gamers objected to the lack of subtitles[3]. French developer and publisher Ubisoft started to include intralingual subtitles in all of their in-house developed games since 2008 following criticism of the lack of subtitling in their games. As such the main trend nowadays is to include intralingual subtitles in most original games and interlingual subtitles in most localised games. Intralingual subtitles are verbatim, as Sony and Microsoft require all intralingual subtitles for games published in their platforms to reproduce exactly what is being said. However, this is not appropriate for gamers with hearing impairments, who often have a lower reading speed.

It must also be noted that there is no SDH in games, albeit some of the features of game subtitles are similar to those of SDH for other audiovisual products, such as the use of different colours for different speakers. In the case of PC games, the lack of game subtitles has led gamers to provide their own subtitles, known as *fansubs*, an established

phenomenon for other audiovisual media, such as films and animated series[4]. However, as games are software applications, the procedure to add subtitles is different. It is performed by means of software patches or updates, called *mods* —short for *modifications*—, made by gamers with programming skills, such as the close caption[5] mod for the first-person shooters *Doom 3* (2004) or *Quake 4* (2005).

Regarding interlingual subtitles, currently most games are partially localised, which means that all textual assets are translated into the target language, but the soundtrack is left in the source language, usually English, and subtitled into other languages. In the case of Japanese games, they are often localised into English first and then the English version is used as a pivot for the other target languages. PC and console games are usually shipped with a single language version or with multiple language tracks in one version. As is often the case with intralingual subtitles, interlingual subtitles are usually included for cutscenes —non-interactive cinematic scenes in a game—, in-game dialogue, and songs, as in the games of the *Final Fantasy* (1987~) series. However, interlingual subtitles usually do not include captions for sound effects if these have not been subtitled in the original version.

Levels of subtitling

Regarding the amount of text that is subtitled, there are three main levels of game subtitling, namely:

(1) Cutscenes

(2) Cutscenes and in-game audio dialogue

(3) Full subtitling: cutscenes, in-game audio dialogue, audio tutorials, and sound effects when available

In terms of accessibility for deaf and hard of hearing players, the option of subtitling cutscenes alone is insufficient, as they miss out on any information that is provided by means of audio only. For example, in the games *Halo 2* (2004) and *Halo 3* (2007) only cutscenes are subtitled and other conversations and dialogue, which often provide useful information or directions that are important to progress in the game, are not subtitled. Providing subtitles for cutscenes and in-game audio dialogue makes games more accessible and enjoyable to deaf and hard of hearing players, as in the case of the horror games *Silent Hill Homecoming* (2008) and *Penumbra* (2007), as players can follow the game because all important information is subtitled. However, despite the fact that there are sound effect captions in *Silent Hill Homecoming*, most of the sound effects are not subtitled, such as the eerie radio static noise that alerts players when enemies are nearby. In *Penumbra* there are no subtitles for sound effects, which means that deaf and hard of hearing players miss out on some of the atmosphere of the game and on the sound that alerts to the presence of enemies approaching. As this sound is not subtitled, deaf players are not aware of an enemy approaching, which increases the level of difficulty for them.

In order to ensure game accessibility for deaf and hard of hearing players, video games should be fully subtitled, including all audio assets, such as cutscenes, in-game dialogue, audio instructions and tutorials, songs and sound effects. To date, few games are fully accessible to deaf and hard of hearing players, some of the notable exceptions being *Zork: Grand Inquisitor* (1997), *Half-Life 2* (2004), the *Portal* series (2007~), and the *Dragon Age* series (2009~). *Dragon Age Origins* (2009) gives players the option of choosing between playing with no subtitles, subtitles for dialogue only, and subtitles for dialogue and sound effects, a model that could be followed by other developers, as it allows players to choose the subtitles more appropriate for them. That said, it should be

mentioned that subtitles in the *Dragon Age* series are often very long and use a white font directly onto the screen, which makes it hard to read depending on the background.

It must also be highlighted that currently, unlike DVD boxes, game boxes do not contain any information about whether a game includes subtitles. However, this information, including information about the level of subtitling, would be useful for deaf and hard of hearing players so that they can make informed decisions when buying a game, to prevent disappointment once they arrive home and start playing it. Despite the fact that there are specialised websites that review and rate games according to their accessibility features and mention whether there are intralingual subtitles or not, such as *Deaf Gamers* and *Able Gamers*, providing information about subtitles on the box would be useful.

Description of current game subtitles

Providing fully subtitled games would be beneficial for a wide range of players. It would allow all players using subtitles not to miss any information due to environmental noise and it would also ensure accessibility for deaf and hard of hearing players. In addition, it would benefit language learners and gamers playing a game in a language that is not their native one. However, it must be emphasised that merely providing subtitles is not the whole answer; the quality of the subtitles must also be good. As in any other media, game subtitles should be legible and facilitate comprehension, thereby resulting in an enhanced and more satisfactory gameplay experience. According to game designer Reid Kimball, author of the *Doom 3* close caption mod, game subtitles "should not be distracting to players. They should be minimal, accessible to the eye (close to where players will usually be looking at the screen, i.e. center reticle) and easy to read" (personal communication, 2010). Unfortunately, the recommended guidelines

for subtitling audiovisual products are often not applied to game subtitling and an ad hoc approach seems to be prevalent. The main reasons for this can be attributed to several factors, such as: a) the young nature of the video game and the game localisation industries, which, in general, lack standardisation; b) the lack of awareness of the need for subtitles by game developers; c) the time pressures generally associated with the development phase of a new game, which means that some features must be prioritised over others, and accessibility may not feature top of the list, and d) the lack of training in AVT of some game translators, particularly in the case of interlingual subtitles.

Currently, the quality of game subtitles varies considerably and, as already mentioned, game subtitles often do not meet the established guidelines for other media. This issue will be explored further in the following subsections. Due to the scope of this paper, a reduced number of subtitle parameters will be considered. Regarding the subtitles layout, the following parameters will be briefly analysed: a) subtitle length and duration; b) font type, size, and colour; c) character identification, and d) displaying sound effects and conveying emotions. From a linguistic perspective, the issues of reduction and segmentation will also be briefly considered.

Subtitle length and duration

Generally game subtitles are longer than subtitles for other media. It is usual to find three line subtitles, as in the games *Final Fantasy X* (2001), *Final Fantasy X-II* (2003) and *World in conflict* (2007). Regarding the number of characters per line, it varies to a great extent. Subtitles for the *Final Fantasy* series include up to 45 characters per line, while other games, such as *Half Life 2* (2004), use an average of 70 characters per line. The fact that *Half Life 2* (2004) is considered to be one of the most accessible games for deaf and hard of hearing players, because it includes subtitles for sound effects, illustrates the fact that accessibility practices are still not established in the game

industry and that the path leading to fully accessible games for deaf and hard of hearing players is still a long way away. Another conspicuous example of subtitles that do not follow the recommended guidelines is found in the strategy game *World in conflict* (2007). There are some subtitles of 143 characters per line and the font is rather small.

Regarding duration, the length of time game subtitles are displayed on screen is variable and often insufficient when considered against the guidelines for subtitling for other audiovisual media. For example, in *Dragon Age* 2 (2011), there are subtitles of one line with 57 characters that remain on screen 6 seconds, while others with 23 characters remain on screen 3 seconds. There are also one liners with over 90 characters that stay on screen for 6 seconds, above the recommended guideline –which indicates that two line subtitles of 70- 74 characters should remain onscreen for 6 seconds. For example, the subtitle "If so, count yourself lucky. The smell of burning darkspawn does nothing for the appetite." has 92 characters and remains on screen for 6 seconds. In DVD and cinema subtitling, the recommended character length of a subtitle is higher than for TV subtitling, between 40-42 characters per line, as DVD users and cinema goers more actively choose to watch subtitled programmes and their profile is perceived as being more cultivated than the wider spectrum of TV users (Díaz Cintas and Remael, 2007). As video games differ considerably both from TV programmes, DVD and cinema movies in terms of interactivity, audience tastes and users age —for example, the average age of gamers in the USA is 34 (ESA, 2011)— more descriptive and empirical research by means of reception studies is needed in order to establish what the ideal subtitling parameters are for this emerging medium in terms of reading speed. It should also be mentioned that most game subtitles are synchronised with the audio

soundtrack and stay on screen as long as the audio file plays, and subtitles tend to sit on the screen until there is more dialogue and it is time to display the next one.

Interactivity is a parameter that deserves special consideration in game subtitling. A number of games offer players the opportunity to control the speed at which the subtitles are displayed by allowing them to press a button when they have finished reading the subtitle, as some of the *Final Fantasy* series games. This feature increases accessibility for deaf and hard of hearing players and players with cognitive disabilities. Other games, as is the case for the *Mass Effect* series, allow the subtitles to be skipped for those gamers who are not interested in the dialogue or have seen a given scene previously. Finally, in some games players are expected to read subtitles while performing other tasks, which may hinder their progress in the game. For example, in the game *Assassin's Creed II* (2009), there is a scene in which the protagonist, Ezio, is training to fight, but at the same time his uncle is talking to him about the background story and providing the player with important information in order to progress in the game. Players are expected to fight and listen or read the subtitles at the same time (as in the case of deaf and hard of hearing players). Unavoidably they are going to have to focus on one of the two tasks, the most likely being fighting, and as a result they are going to miss out on the background story to the game. This issue highlights the lack of attention currently provided by game developers to subtitles and emphasises the need for further research into game subtitling taking into consideration the specific features of the video game medium and the specific needs of its users.

Font: size, type, colour, background

As far as font size is concerned, an important aspect that should be taken into account when analysing game subtitles is the fact that many games are multiplatform, which means that they can be played on PCs and different consoles. Players using a PC

sit physically much closer to the screen than players using a console, who sit further away from the TV. In addition, currently most games are being designed for high definition TV sets, and as a result the font is too small to read when displayed in standard definition television. Different supports require different font sizes taking into account the distance at which the user is from the subtitle display screen, but game developers seem to be applying the same font size to games developed for all platforms, which occasionally makes subtitles harder to read on TV. A font size that may be suitable for a PC is likely to be too small when displayed on a TV set. The Web Content Accessibility Guidelines (WCAG) by the World Wide Web Consortium (W3C) set in 2008 recommend the use of a font which is at least 18 points, which approximately corresponds to 24 pixels[7], and does not have strokes or unusual features. On the other hand, for film subtitling Díaz-Cintas and Remael (2007:84) recommend using sans seriff fonts, such as the font Arial and the size of 32 pixels, which is roughly the equivalent to 24 points, so subtitles to be displayed on a TV set should be larger. It is rather difficult to find information about the font size currently used in games, but members of the Game Accessibility Special Interest Group involved in game development use font sizes varying from 16 to 26 pixels (personal communication) [8]. The ideal solution would be to use scalable fonts when possible, so that users could choose the font size that suits their needs best, or allow players to choose amongst a number of predefined font sizes depending on their needs.

Currently, game subtitles use a variety of fonts, with & without seriffs (i.e., Verdana, Broadway, Paralucent Condensed), as well as custom fonts purposefully designed by the developing company, and it seems that occasionally aesthetics seem to be prioritised over legibility. In relation to the font colour, white seems to be the most common colour, sometimes on a black box background, sometimes directly on the

screen, which may cause colour clashes that are likely to make the subtitles hard to read on a light background, as in the case of *Dragon Age II* (2011). Using a small black box for the subtitles, as it is sometimes done for the cinema and is currently done for some games, such as *Half-Life 2* (2004) and *Final Fantasy XII* (2006), would contribute to solving this particular issue.

Moreover, the interactive and ludic nature of games allows for more creativity and flexibility in terms of subtitle presentation. For example, subtitles can be presented on the top of the screen, as in the games *World in conflict* (2007) and the *Dragon Age* series (2009~). In the case of *Final Fantasy X* (2001), the subtitles for battles messages appear in the centre of the screen, as the bottom of the screen is already occupied by battle information and commands and the upper part is reserved for help messages that provide players with information about the commands they select. Subtitles are also occasionally presented in text boxes or speech bubbles, as in the game *Freedom Force vs. the Third Reich* (2005).

In addition, some games, such as the *Final Fantasy* series, use different colours to visually highlight information that is important for gameplay, such as hints, and clues, where the destination where the player must go to next is highlighted in blue.

Character identification

A number of games, such as *Escape from Monkey Island* (2001) colour-code the interventions of different characters to facilitate character recognition in the subtitle. Furthermore, as shown in Figure 4 below, in game subtitles it is not unusual to find speaker portraits to indicate who is speaking, as in the games *Freedom Force vs. the Third Reich* (2005), *World in conflict* (2007), *Dark Horizon* (2008), and *Disgaea 3: Absence of Justice* (2008), to name but a few. Another method used for character identification consists of including the name of the character speaking in the subtitle, as

in Figure 2 above. Some of these features, such as the different colour coding are currently used for SDH, but generally not for conventional subtitling for TV, DVD, and the cinema.

Sound effects and emotions

A less common approach is for certain games to include subtitles for sound effects, usually using in comic-style onomatopoeia, text balloons, or sound visualisations by means of animation, such as *The Sims 2* (2004) (Van Tol, 2006).

Regarding conveying emotions, the use of icons and non-standard language, spelling and typography is common in video games, as in the game *Disgaea 3: Absence of Justice* (2008). While the use of emoticons and icons, such as a musical note, for subtitling for movies and TV programmes has been explored by AVT scholars (see, for example, Neves, 2005 and Civada & Orero, 2010, respectively), it has not been widely adopted in subtitling for more conventional media.

Reduction and segmentation

While existing subtitling guidelines call for the need of reduction and condensation of the audio message in the subtitle in order to facilitate its reading and comprehension, in game subtitling this is often not the case. For intralingual subtitles, game developers request subtitles to be verbatim, and as a result the player may not have enough time to read them. In the case of interlingual subtitling the situation is slightly different, but generally speaking little reduction is the norm.

As regards to segmentation, current subtitling guidelines recommend preserving sense blocks and enhancing readability, but in game subtitles these recommendations are often not followed and the tendency seems to be to use all the space available for

each subtitle. As a result, the first line of a subtitle is usually longer, the opposite of what Díaz-Cintas & Remael (2007) recommend, and no attention seems to be paid to sense or grammatical blocks. For example, in the game *Mass Effect* (2007), the segmentation of subtitles does not take into account grammatical or sense units and they can have up to 102 characters per line.

A comparison amongst TV, DVD and game subtitling

The following table summarises some of the main similarities and differences between TV, DVD, and game subtitles. The information regarding TV and DVD subtitling has been extracted from Díaz-Cintas & Remael (2007). Data regarding game subtitling has been compiled from an analysis of different games, the author's professional experience in the game localisation industry, and information on font type and size kindly provided by members of the Game Accessibility Interest Group (GA-SIG) at the International Game Developers Association (IGDA).

Table 1. Comparison between TV, DVD, and game subtitling

Parameter	TV subtitling	DVD subtitling	Game subtitling
Time on screen	6 seconds rule	7-8 seconds	Variable User controlled in some games
Character/line	35-37	40	30 - 143
No. of lines	2 lines	2 lines	Variable: 2 +
Position on screen	Bottom of screen	Bottom of screen	Variable: bottom, top, centre Speech bubbles Text boxes

Alignment	Left & centred	Centred	Left & centred
Font type	Font without seriffs (i.e. Arial, Tiresias)	Font without seriffs (i.e. Arial)	With & without seriffs (i.e., Verdana, Broadway, custom fonts)
Font size	32 pixels	32 pixels	Variable (16 to 26 pixels)
Font color	White (yellow)	White	White, different colours used for highlighting information
Sense and grammatical blocks	Preserve	Preserve	Often not preserved
Reduction	Yes	Little	None for intralingual subtitles Little for interlingual subtitles

Game subtitling: the need for guidelines

The lack of subtitles or the inclusion of poor quality subtitles can negatively affect the gaming experience of players, as illustrated by the following statement from a gamer, one of many comments available in game discussion forums:

> Video games should all have subtitles too and while I'm at it, in many video games the subs are tiny. They're too small to read! In games everything else is adjustable, they ought to give the player the chance to enlarge the subs[9].

There are no specific professional standards or guidelines for game subtitling[10], except for a proposal made by game designer and usability expert Griffiths (2009) in specialised industry journal *Gamasutra*. Based on Ofcom's guidelines, Griffiths (2009: 2-4) proposes a set of sixteen guidelines for subtitles in games, which can be summarised as follows:

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(1) Use a simple, easy to read font, such as Times New Roman, Helvetica, Arial or Calibri.

(2) Use a large font that is easy to read.

(3) Use a consistent font size and always in mixed case, as this is easier to read than all capitals.

(4) Subtitles must be visible in various output devices, such as standard and high definition TV sets.

(5) Keep the line length under control and avoid sentences that are too long.

(6) Leave good space between words and lines.

(7) Give the option to switch the subtitles on and off.

(8) Use a separate button to skip subtitles and to perform actions, so that there is not an overlap, as in the case of the game *Mass Effect*, where the button used to skip the subtitles was the same one as the button to activate a conversation button. As a result, both the subtitles and the conversation appeared on screen at the same time, potentially causing confusion for players.

(9) Give the player the ability to control the speed with which subtitles appear on screen, giving them the option of moving on to the next subtitle when they have finished reading.

(10) Select the right colour. The colour for subtitles should be different to the rest of the system fonts, ideally white, yellow, cyan or green against a solid black colour to provide a good contrast. It is also advisable to place the subtitles on a background to ensure they stand out and do not clash with the image. If there is more than one character on screen, different colours should be used for each of them.

(11) Stagger subtitles in a conversation and add a label with the character's name to

facilitate character's identification.

(12) Include information about sound effects and relevant non-speech information.

(13) Always be within the caption safe area, so that the bottom part of subtitles is not cut off on smaller TVs.

(14) Subtitles should match the spoken dialog word for word.

(15) Avoid using unusual speech, like slang, in case it will not be understood by players from other territories.

(16) Ensure the quality of the subtitles, so that there are no spelling and grammar mistakes.

Although Griffiths' guidelines refer to intralingual subtitling in English, they can also be applied to interlingual subtitling, except for guideline (14), which is specific to intralingual subtitling and disagrees with the established subtitling guidelines for other media, which recommend some degree of reduction of the message. Griffiths' guidelines are a good starting point, but they are in some instances too vague, such as the guidelines about using a large font without specifying a recommended size; the guideline about not making sentences too long without referring to the number of characters per line, and the "leave good space between characters and lines" guideline.

A more detailed set of guidelines for game subtitling, backed by data obtained from further descriptive and empirical studies, is required in order to define a set of guidelines for game subtitling. Better quality subtitles will enhance players' gaming experience and ensure game accessibility for deaf and hard of hearing players. It would also be interesting to study whether the quality of interlingual subtitles is equal, better or worse than the quality of intralingual subtitles. The next stage of the research presented in this article consists of performing a more extensive descriptive analysis of current game subtitling practices, as well as reception studies including gamers and using

interviews, questionnaires and eye tracking technology. When possible, game developers will also be consulted about their current practices and views.

Conclusion

In less than four decades the video game industry has become a multibillion dollar worldwide phenomenon and an integral part of global pop culture. As game technology improves and games increasingly rely on cinematic aspects, subtitling gains further relevance and becomes key to ensuring a satisfactory gameplay experience, both for hearing and deaf and hard of hearing players. While years of research in AVT have lead to the establishment of subtitling guidelines and standards, these are generally not applied in game subtitling. Some games provide subtitles of more than three lines, use small fonts, do not pay appropriate attention to the semantic unit when segmenting a subtitle, and do not take into account the established average reading speed, which may affect negatively players' gaming experience. Defining subtitling guidelines can be beneficial at several levels: a) it can contribute to increasing readability and comprehension; b) it can facilitate immersion and provide an enhanced gameplay experience; c) it will increase accessibility for all players, particularly deaf and hard of hearing players, d) and it can foster language learning. Further descriptive and empirical research (with interviews and usability tests with eye tracking technology) is needed to fully understand what the best type of subtitles for games is, considering the interactive and creative nature of the medium. Without a doubt, better quality game subtitles will contribute to providing more fun for all, both hearing and hearing impaired players, without barriers.

Notes

Government. It is also within the R + D Spanish Ministry of Science and Innovation project FFI2009-08027 and the Catalan Government funds 2009SGR700.

[2] Ofcom guidelines are available at

    http://stakeholders.ofcom.org.uk/binaries/broadcast/guidance/guidelines.pdf.

[3] See, for example, http://gamescc.rbkdesign.com/arti-views/marc_laidlaw_cc.php or http://www.deafgamers.com/halflifeps2.htm.

[4] It is beyond the scope of this paper to analyse fansubbing practices for video games, but for more information, see Muñoz Sánchez (2009).

[5] In the game industry, the term *close captions* is used to refer to the combination of subtitles for dialogue and captions for sound effects.

[6] See http://www.deafgamers.com and http://www.ablegamers.com/.

[7] The conversion from font points to pixels is based on a conversion table available at http://reeddesign.co.uk/test/points-pixels.html.

[8] Data relating to font type and size have also been kindly provided by members of the Game Accessibility Interest Group at the International Game Developers Association. In particular the author would like to thank Barrie Ellis, Reid Kimball, Eleanor Robinson, Sandra Uhling and Tara Voelker for all the information provided.

[9] Source: http://dvd-subtitles.com/speak-your-mind.html?page=4.

[10] It should be mentioned that despite the pioneering and extensive work performed by the GA-SIG over the past years to improve game accessibility, their main focus lies on broader accessible design issues and to date they have not specifically focused on game subtitling.

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Games

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Army of Two: The 40th Day (Electronic Arts, 2010)

Assassin's Creed II (Ubisoft, 2009)

Battlefield: Bad Company (EA Digital Illusions, 2007)

Disgaea 3: Absence of Justice (Nippon Ichi, 2008)

Doom 3 (id Software, 2004)

Dragon Age Origins (Bioware, 2009)

Dragon Age II (Bioware, 2011)

Final Fantasy series (Square-Enix, 1987~)

Final Fantasy X (Square, 2001)

Final Fantasy X-II (Square, 2003)

Final Fantasy XII (Square-Enix, 2006)

Freedom Force vs. the Third Reich (Irrational games, 2005)

God of War series (SCE, 2005~)

Half-life series (Valve Corporation, 1998~)

Half-Life 2 (Valve Corporation , 2004)

Halo 2 (Bungie Studios, 2004)

Halo 3 (Bungie Studios, 2008)

Mass Effect series (Bioware, 2007~)

Penumbra (Frictional Games, 2007)

Portal series (Valve, 2007~)

Project Zero (Tecmo, 2003)

Quake 4 (Raven Software & id Software, 2005)

Silent Hill: Home coming (Double Helix Games, 2008)

Spiderman 3 (Treyarc & Vicarious Visions, 2007)

Stuntman Ignition (Paradigm Entertainment, 2007)

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