

What's in a 'Game'?

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Abstract

This article highlights the growing use of video games in modern society and the level of penetration in today's entertainment habits. The demand for entertainment software has prompted game publishers to translate more of their products into more languages. However, the nature of multimedia interactive entertainment software products seems to require a particular kind of translation. The development of new professional practice calls for new research within translation studies and a new area of specialisation. The present article explains the many different textual types that translators might find when working for the multimedia interactive entertainment software industry, and how different video games may require a variety of skills from translators, such as being a proficient TMT user, having good research skills, and being inventive.

Keywords: *video game, localisation, translation, game localisation, localization, game localization, entertainment software, multimedia interactive software*

*"What's in a game? That which we call 'original'
by any other language would play as sweet"
Shakespeare, had he been a video game translator*

1. Introduction:

Entertainment software products have become such a worldwide phenomenon that many public organisms, companies, and artists are starting to explore the market to see how they can utilise the interest generated by these products, most commonly known as video games. An even higher level of interest is shown by the entertainment industry, which is looking at expanding their successful franchises into the interactive software sector. Needless to say, game developers and publishers are blooming almost everywhere.

Most games are normally developed in either English or Japanese, but they are often translated into other languages, the main ones being French, Italian, German, and Spanish (abbreviated as FIGS). The translation process has to deal with the same problems that most other areas of translation do, but video games combine a variety of characteristics that make their translation rather unique and, at times, troublesome. Unfortunately, the linguistic and cultural aspect of this customisation does not seem to be a relevant issue for the industry, most companies outsource this part of the process and they very rarely

mention localisation in their international conferences. However, I would like to highlight its importance for the game industry, as well as for gamers, and translation studies, because I think that everybody would benefit from further research into this complex process. The following article will try to explain, in a simple manner, the main characteristics of the translation of video games.

2. The spread of video gaming.

It is difficult to know why, but video games have spread rapidly and become one of the leisure activities of choice of children and adults around the world. The interactive factor probably plays an important part in it since it empowers its audience, who become players, agents in control of the creation. We could argue endlessly about the bad influence of violent games and the potential of multimedia interactive software for education, but there is no doubt that this format is becoming very popular, and it is here to stay. Evidence of this is, for example, the dozens of game conferences taking place yearly around the world, and that in October 2006 BAFTA (British Academy of Film and Television Arts) opened a dedicated section to video games with eighteen categories.

Video games combine characteristics of other arts, and disciplines like film studies, literature, and com-

puter science in one audiovisual interactive product. Perhaps video games are, in a way, the epitome of 21st century pop culture entertainment where people can find the theme they like, adjust it to their skills, save their progress, and achieve their goal at their own pace. We have seen interactivity before, where the actions of the receiver influence his/her particular experience of the product, for example in game books, like the series started by Ian Livingston and Steve Jackson, in interactive theatre like 'La fura dels bous', and in TV programs like 'Big Brother'. Entertainment industries have been working together for many years, but it is only now that we can start to appreciate the success of their joint ventures. For people outside of the game sector, it is still difficult to realise the size of the far-reaching game market. The following examples will help readers comprehend the extent of video game penetration in today's world:

On the cinematic side:

- Many cinema blockbusters nowadays have a video game adaptation of the film, for example: The Godfather, The Incredibles, Torrente.
- Likewise, there are games that are transformed into movies, such as Tomb Raider, Silent Hill, or Dead Or Alive.

On the Children and Young adults' Literature side:

- Popular books are turned into video games such as The Lord of the Rings, The Chronicles of Narnia, or Harry Potter.
- Popular comic books are also made into video games such as Superman, Astérix, X-Men.

On the television side:

- Sportspeople give their names to a game franchise, for example: Tiger Woods, Colin McRae
- Singers contribute with their music and media persona to the success of some video games, for example, 50 Cent: Bulletproof, Kiss: Psycho Circus, Britney's Dance Beat.
- There are TV series and game shows that inspired video games, such as: The Simpsons, Buffy the Vampire Slayer, and Pop Idol.

On the more serious side:

- The American Ministry of Defence is using a game to attract people into the armed forces called America's Army.
- Some companies and public organisms use simulators (life-like video games) in the first stages of their staff training, programs like Flight Simulator, Rail Simulator, Ship Simulator.

- There are some government initiatives to help fight crime using video games, like CrimeStoppers' Gameover4knives.
- The BBC and some other channels are using video game-type applications to educate youngsters, for example: BBC Bitesize.

In the planning stages of a new project, game designers have a more or less clear idea of the kind of game they want to make, and so they create a video game with a target audience in mind, normally that of their country, which is the one they know best. Worlds, storylines, characters, and features are generated to make the perfect game. Online games have evolved into not only a very social gaming experience, but also into a surprisingly lucrative business, as Castronova (2005) explains in his Synthetic Worlds: The business and Culture of Online Games. However, due to the high cost of the development, and the nature of today's global market, it is almost mandatory to release the game in as many territories as possible. This calls for a full internationalisation of the product, i.e., the game has to be able to incorporate in its design all the changes importing countries might require. This customisation (normally referred to as 'localisation') will secure ROI (return on investment) and further profits in the highly competitive interactive entertainment software market. It comprehends, among other things, the adjustment to different hardware requirements (PAL, NTSC), multi-network configuration (for international online playability), legal framework, cultures and languages.

However while the spread of video games over international markets is self-evident, as well as being a multimillion pound market, the translation of multimedia interactive entertainment software has not been implemented into translation studies. I write about these issues in my forthcoming article "Training translators for the video game industry" (Bernal-Merino 2007)

3. The translation of video games in context

As the international demand for video games rises, successful titles depend on their adaptations for various cultures in a slightly different way to that which other audiovisual creations have, up until now, needed. These products tap into a very emotional activity within society: "play". It is "play" that first bonds us to our own culture and history, to what we see as normal, fun, appropriate, or funny. Video games, unlike any other entertainment product, aim at motivating

and challenging players at their own level and pace. They do this by various means, for example, a customisable avatar, an adjustable difficulty level, and relative freedom of movement and interaction within the virtual world. The country and language of destination may also affect the game itself (Bernal 2006), especially when dealing with violence, historical events, bad language, or sex, since different cultures are more sensitive than others to these matters. But there is also what Sutton-Smith (1997:99) calls 'counterludic identity', which says that sometimes the country importing the game refuses to play them the way the exporting ones do, putting more emphasis on their own way of playing. As a result, the same game released simultaneously in the US, France, Germany, China, and Japan, might highlight different features to adjust to fans' expectations, as well as the cultural and legal framework.

When games are more story orientated rather than action-driven, making them culturally acceptable for different locales can be challenging because of the premises the designers and the story are taking for granted. Asian gamers seem to prefer more child-like characters, while western countries might emphasize adult features, think of the difference between *Zelda* (Nintendo 1986-2006) and *Lara Croft* (Core 1996-2006). An example of the changes that are likely to happen during localisation is *Fatal Frame* (Tecmo 2001). In the original Japanese version the female protagonist, Miku, was 17 years old, in the American and European version she was 19, had western features, and was not wearing the original Japanese school uniform. A similar thing happens with depiction of blood or historical events, everything has to be readjusted to fit the country's tolerance and taste so as not to hurt sensibilities. This is probably one of the reasons why so many games take place in imaginary worlds. This customisation effort will draw on the knowledge of geopolitical strategists, like Tom Edwards from Englobe. He explained during the 2006 Game Developers Conference in California the importance of being culturally aware when internationalising games with a very clear presentation called "Fun vs. Offensive: Balancing the 'Cultural Edge' of Content for Global Games". Both developers and publishers want to please their clients. Gamers are not particularly interested on where the game comes from, or who created it any more than someone buying a new car or DVD player. A product for mass consumption only keeps the branding features of the trade mark, all the other characteristics are subject to customisation, due to the need to appeal to the local market, therefore the translation

will be in some cases an actual recreation, or a 'transcreation' (Mangiron & O'Hagan 2006), where translators will be expected to produce a text with the right 'feel' for the receiving market. It is important for translators to be aware of the logic behind this. Video games are a software product, so they will have manuals and instructions, as well as menus and help files. This will call for technical translation. On the other hand, we will also find texts full of narration and dialogue with a more inventive quality closer to literature but, unlike literature, translators are allowed to treat equivalence in a more flexible sense, always highlighting fun and playability.

Translators have for centuries worked from written texts in order to produce other written texts. These texts were firstly, and primarily, aimed at other scholars and the privileged that could actually read, normally religious leaders and thinkers. Popular books, from the religious to the scientific or the literary ones, were translated and distributed in other nations. These first translators started writing about the language transfer process and communication between cultures centuries ago, as we can see in anthologies and historical studies on translation (see Vega 1994, and Deslile & Woosworth 1995). Some of their findings are still applicable nowadays.

With the advent and popularisation of new modes of entertainment and communication, (like cinema, radio and TV), translators have had to adapt and learn new techniques, since the product to be translated required a slightly different approach. Good old practice was revised and adjusted to the demands of modern products, for example: space and time constraints in subtitling (Díaz-Cintas 2003), lip-syncing for dubbing (Agost & Chaume 2001), or the translation of seemingly 'impossible' audiovisual puns (Bernal-Merino 2002), to name but a few. These changes did not transform the art of translation, but they did add to its complexity and the debate in Translation Studies, since the translation of a text that is part of a multi-channel (image, sound, and text) product has added difficulties due to its audiovisual nature.

A similar development has taken place with the spread of multimedia interactive computer technology and the popularisation of video games. Translators working for the entertainment software industry have to deal with the same complexities belonging to the written and audiovisual medium (to different degrees) and adapt to the specific needs of an interactive digital product. As shown by Mangiron and O'Hagan (2006), the translation of video games nor-

mally allows for and encourages a more inventive approach than other translation areas to enhance players' immersion. This may seem to clash with the well established translation principle of 'equivalence', based on the long-established practice of translating canonical (and non-canonical) texts, but I think it may highlight levels in the degree of equivalence, as well as the need to reconsider the boundaries of its applicability (Bernal-Merino 2002). Video games are developed by a team of creative people, there is no single author, and they do not necessarily broadcast their nationality, in fact, the game will morph into whatever form publishers consider appropriate for the receiving culture to guarantee its appeal and a high level of market penetration.

Video games have a variety of texts, such as manuals, dubbing scripts, and subtitles that need translating, but they also have other type of texts in a format only common to utility software, like a word processor application, or an Internet browser. All these programs have one thing in common: information and commands are readily available at the click of a button. It is what we call 'interactivity'. Interactivity allows readers to navigate the text in a different manner, sometimes non-linear (when going through the menus), and at other times choosing the progression of our story the way we consider appropriate (when playing a role playing game). Aarseth explores in his book *Cybertext* (1997) the aesthetics and textual dynamics of what he calls "ergodic" literature, where "nontrivial effort is required to allow the reader to traverse the text." (Aarseth 1997:1). Another publication worth reading is *First Person. New Media as Story, Performance, and Game* edited by Wardrip-Fruin and Harrigan. This book is organised as a series of discussions on a variety of topics from "cyberdrama" to "ludology" among game creators and theorists. The conversational structure (partly done through a web site created in conjunction with Electronic Book Review www.electronicbookreview.com) inspired contributors to revise, update and expand their arguments as they prepared them for the book. The fact is that we do not seem to have a theoretical framework where we can locate textual products that have a variety of interactive features, some of which link paragraphs that read as literature.

The interactive element of computer programs, has serious consequences for translators because it means that access to texts and information is random, i.e., each user will activate a particular message or command at a different point, or not at all. An arbitrary sequence of events does not allow for linear texts and

contextual information, therefore, translators lose one of the most important sources needed in the decision making process. Context is still available, but it has to be understood in a much wider sense. In these cases, translators have to rely on existing manuals or the actual technical team that created the software. Esselink (2000) is probably one of the best reference for the localisation of utility software and web pages.

The problems of interactivity for translators come to the fore in video games, which, unlike other types of interactive software, are meant to narrate stories; players' adventures in a virtual world. These stories are told in more or less literary terms, through both narration and dialogue. Texts will be stored in different parts of the game code, from where the program will retrieve them and present them seamlessly to the player, whatever the order of his/her actions. Due to the nature of interactivity, scripts are written in a non-linear manner. Translators, therefore, have to work with words and sentences with very little or no context (unless they have access to and can read game code). The combination of all these factors highlights the translation of video games as a new specialisation that deserves further and deeper research within translation studies.

4. Translatable assets generated by the game industry

Nowadays, more games have a "localisation friendly" development process, although, unfortunately, it is still an afterthought in many cases (Chandler 2005b). The most commonly used file types are .txt, .rtf, .doc and .xls, which are compatible with most systems. More and more the translation industry is turning to CAT (Computer Aided Translation) Tools due to the fact that they can increase productivity and consistency if used correctly. These type of programs are a must in the localisation industry, and translators are expected to make the most of them if they are going to meet the tight deadlines typical of this fast-paced industry. The only downside of using these programmes is that the most popular ones tend to be quite expensive and freelancers will need to weigh carefully the pros and cons of acquiring them. Nevertheless, there are shareware and freeware programs that can also help. Quah (2006) provides a great insight into how new technologies and initiatives may benefit language and translation professionals.

Unfortunately, the software localisation industry has

not been able to create a GUI (General User Interface) localisation tool, such as the ones used in the translation of utility software, for translators to use with video games. These programs (for example Alchemy Catalyst and Passolo) allow users to work directly but safely with the game code, generating a visual representation of the final product, which means that translators can see exactly what the end result will look like and adjust the text or the interface to suit the space available and general look. The LRC (Localisation Research Centre) and LISA (The Localization Industry Standards Association) have ample information on these programmes.

When a game has followed a localisation-friendly development, translators will be able to work from a less cryptic file, if still non-linear. The localisation engineer will provide translators with a 'localisation kit' of the game that would often include: the instructions for the project, the strings that need translating (normally Word and Excel files), a glossary of known (or previously used) terminology, and a 'translation memory' (TM) file. If there is no previous TM file, translators will be expected to create one for future reference. Translatable strings will normally be organised in tables with independent columns and rows for each piece of information. Part of this data will be for the programming team (coders, audio and video engineers, etc.) and part of it will be for language professionals. The spreadsheet format helps to organise data in an easy-to-find way, which is ideal for a non-linear, multi-threaded storyline, but it also means that translators might get very little context, if any at all.

People unrelated to the entertainment software industry might find the quantity and quality of translatable assets it produces quite surprising. Whether in combination with other entertainment sectors or not, most video games will require translation for thousands, or even hundreds of thousands of words from the beginning of the project until the end. The workload will increase depending on the number of languages

aimed for, as well as the number of platforms being developed for since they all have different specifications. Current platforms include PC, PS2, PSP, Xbox, Xbox 360, GC, GBA, Nintendo DS, mobile phone, PS3 and Nintendo Wii. With 11 possible platforms the linguistic and cultural adaptation of a game is a huge technical undertaking that adds to the complexities of hardware and software adaptation, and translators will need to become acquainted with all these different brand glossaries and hardware specifications.

Linguistic assets will be utilised in a variety of ways at different times throughout the creation, development and launch of the game, and they will be found in different formats, mainly:

- The game itself, which has a variety of texts in multiple formats, from the packaging and manual, to the installer programs and readme files, UI (user interface), as well as audio and video files
- The official web site of the game, which will normally use HTML or Java Script. Many websites use content management programs, which can be a very effective tool for regular updates.
- Promotional articles and merchandising in general.
- Game patches. They are downloadable programs that enhance game functionality.
- Game updates. Periodical downloadable augmentation of game features, storylines, and characters.

Within these products, there are different textual types, each of which has its own characteristics and purpose. Because we are dealing with a multimedia product, the challenges the translators are going to face are also multimedia. Within the same project we will have to deal with a wide variety of issues such as reproducing the oral quality of dialogues in writing, lip-synching for dubbing, space and time constraints for subtitling, number of characters for captions and UI, etc. The following table is an attempt to detail the textual types in video games:

TRANSLATABLE TEXTS	FORM	DESCRIPTION
1. Manual	Written	Normally includes legal, technical, literary, didactic, and corporative texts.
2. Packaging	Written	Mixes a promotional text with a literary one.
3. "Read me" files	Written	Technical text.
4. Official Web Site	Written	Mixes a promotional text with a literary one, but it will also have technical information like minimum requirements, etc.
5. Dialogues for dubbing	Spoken	Oral text where registers, accents, and idiosyncrasies have to be conveyed into another languages.
6. Dialogues for voice-over	Spoken	The narrator's voice where an oral text does not need lip-syncing but it needs to be cued with the visuals.
7. Atmospheric utterances	Spoken	Many games will include people talking or reacting to the player's actions. No synchronisation required normally, but we have to maintain the orality.
8. Dialogues for subtitling	Written	Oral text in written form. Not all languages allow for the same licences when writing. We also have time and space constrains.
9. UI (User Interface)	Written	Space is at a premium and redesigning is rarely an option.
10. Online help	Written	Briefness and clarity are needed.
11. Graphic art with words	Graphic	Use for titles and in-game signs and ads.

Due to this variety of textual types and file formats, translators who specialise in video games are advised to be computer and console literate, as well as to be able to switch from one type of text to another. Freelancers and translators in general, are used to dealing with these kinds of issues, but there is another level of difficulty. Despite the fact that entertainment software products can generate more than 50% from their translated versions, many video games do not have a 'localisation-friendly' development (Chandler 2005a:115). In these cases, the translation process will actually be more challenging, time-consuming, and expensive. Translators might have to deal with 'hard-coded strings', that is, actual game code where translatable text will normally be signalled by characters such as '\$', '[]', '{ }', '%', '< >'. The system was reasonable enough at the beginning because games tended to have very few translatable sentences (think of Pac-Man, Space Invaders, or Pong), but it made the process very arduous, and introduced code and text mistakes (generally called 'bugs' in the industry). However, most of today's games have several hundreds (if not thousands) of lines of text, with RPGs (Role Playing Games) being the most text intensive, and hard-coded text for translation would interfere and delay the whole process.

I will now try to explain in more detail the difficulties translators working for the entertainment software

industry have to deal with, since it is highly advisable for them to not only know about game mechanics, but also to understand the logic behind the game code in order to be able to fulfil their role correctly. There are mainly four issues to take into account when translating video games: the addressee, text fragmentation, translating tables, and translating variables.

4.1. The addressee:

One of the important characteristics of the translation of video games is, as mentioned earlier, the variety in textual types. Games address the player at three different levels, and the textual type changes accordingly. These levels are:

- As a client of the developing, and the publishing companies. This texts will normally be produced by marketing departments, and they will be used in the packaging, promotional articles and websites, advertisements and commercials. These texts are used to pitch the product and attract customers.
- As a legal owner and user. We will see this type of content in the installer program, the EULA (End User License Agreement), the 'Readme' file, and the manual. The textual type here pivots between legal, technical, and pedagogical.
- As the protagonist of the story. This is the most important level, the one that ultimately convinces

buyers, and immerses them into a virtual world where they can venture in and live out extraordinary stories.

4.2. Text fragmentation

Language professionals that specialise in audiovisual translation often have to work from only a written script, or with a bad copy of the actual programme and no script, or even with only a portion of the needed information. This is far from ideal but not uncommon. As we all know, lack of context (and co-text) affects the act of communication (Cutting 2002) and, consequently, translation, because isolated linguistic items tend to polysemy, i.e., they have various possible meanings. Fragmentation, however, is one of the features of texts within the interactive entertainment software industry. This is not to say that there is no story, or that games have a random and chaotic sequence of events, but that the story is also dependant on the individual performance of the player, and the underlying structure is provided by the game code which makes interactivity possible, and not the storyline. In video games things happen as and when players trigger them through their actions, there is no unique and compulsory sequence of events. In fact, this interactivity is part of their appeal, the relative freedom to resolve situations in the way and at the pace the player chooses to. This feature of entertainment software products has a great influence in its design and, more importantly for translators, in the way scripts are written (Chandler 2006) and prepared for them to work on.

Everything in a video game has to be programmed through the game code, which is an artificial language that is used to give instructions to the computer. Programming languages have been optimised to produce the best result with a minimum of commands, memory use, and variables. Readers can see an example of source code if they go to their Internet browser and click on 'View' and then 'Source'. Here is an example from the beginning of the home page of L4G (groups.msn.com/L4G):

```
<HTML>
<HEAD>
<TITLE>L4G</TITLE>
<LINK REL = "stylesheet" TYPE = "text/css"
  HREF =
  "http://sc.groups.msn.com/themes/R9c/pby/MS
  Nframing.css"><LINK REL = "stylesheet"
  TYPE = "text/css" HREF =
  "http://sc.groups.msn.com/themes/R9c/pby/them
  e.css">
```

```
<META NAME="TITLE" CONTENT="L4G">
<META NAME="DESCRIPTION" CON
  TENT="LANGUAGES FOR GAMES
  LINGUISTS FOR GAMES
  LOVE FOR GAMES
  LOCALISATION FOR GAMES">
<META NAME="KEYWORDS" CON
  TENT="msnlang1, msncommengb, Language,
  translation, localisation, localization, game,
  videogame, video-games, linguist, linguists,
  games, videogames">
```

This is the type of text that programmers have to generate for us to see the user-friendly version. It is not completely impossible to understand, but it is certainly very far from a novel, a manual, or a screenplay. Game source code is even more cryptic to the untrained eye. This is the reason why programmers (or localisation engineers in some cases), have to extract all the linguistic assets of the game and present them to translators in a format that is useful for all parties in the team, mainly the localisation, the programming, and the QA (quality Assurance) departments. The preferred format is the table and the spreadsheet. Information is fragmented but easier to find. By allocating each piece of information a separate column, the team is able to work with a more understandable source, and programmers can then safely insert the pertinent strings back into the game code, avoiding the problems of having non-technical people editing the source code, which would produce bugs.

4.3. Translating tables

Tables will normally have a column for the 'resource file ID/name', one for the original string, and another one for the translation. Often they will also feature a column for comments where the localisation engineer can insert extra information to help voice actors, translators, etc. Tables are an ideal tool to organise data but not to tell stories. However, as we said earlier, stories in video games are non-linear because they depend on players' decisions. If the project has been planned carefully, and enough time has been allocated to the localisation of the game, spreadsheets might contain other columns such as: 'name of character', 'situation', 'location in the game', 'format', and 'sound effect'. These tables have the advantage of organising the multi-threaded possibilities that are available to players so that everybody involved in the project can find exactly what they need. Contextual information will only come from other boxes in the spreadsheet, which won't necessarily have any chronological relevance to each other. Translators accustomed to a

more traditional kind of work will most likely resent this lack of context.

4.4. Translating variables:

Most games allow players to choose their name, gender, nationality, etc. which means that translatable strings will need to incorporate 'variables' (similar to the ones used in mathematics or physics) for the game code to be able to take that data into account and present the right text correctly phrased.

Variables are used in many complex ways to enhance players' immersion by addressing them and their chosen profile directly. The most commonly needed one is the variable for the player's name. For example, the winning message after the completion of a part of the game normally say: " /n player1 /n wins ! ". The string between the 'n' characters is the variable, which the programme will substitute depending on players' choices. So, for instance, in my case, the phrase would read " Miguel wins! ". There is no set way to indicate variables. I chose ' /n ' but this will depend on the SDKs (Software Development Kits) used and the lead programmer of the project. Translators have to be aware of the strings that belong to the game code, and the strings that belong to the localisable assets, since mistaking them would probably make the game 'crash' or even block the computer. For the above example, the Spanish translation would probably say: " ¡ Ha ganado /n player1 /n ! ["/n player1 /n has won !"]. As it usually happens, the translation is longer than the original text which could pose a problem. We have also added the opening exclamation mark character (mandatory in Spanish), and changed the order and tense of the verb to make it sound more natural. Note that blank spaces are also meaningful characters to computers, so adding or deleting one by mistake will affect the functioning of the programme. This example shows how a rather simple variable, that works perfectly fine with English, might prove to be complicated due to syntax, usage, and orthography, apart from the obvious space constraints.

Many games use variables for nouns as well, which may vary (depending on the language) in gender and number, affecting their inflection and, therefore, the translation of the whole sentence. If the game code does not take into account the grammar of the languages covered by the project many mistakes will appear. Mistakes that may be attributed to the translation but that actually show a problem in the way the game code deals with the grammar of natural languages. For example, strategy games may allow the

player to choose from different nations to conquer the world. When a nation attacks you the message normally says something like: " /o nameofnation /o is attacking you! ". Names of nations change widely from one language to another. They may carry an article or not, they can be singular or plural, and masculine or feminine, so not only do we have to be careful with the syntax of the sentence and the possible relocation of the variable, we also need to be aware of potential changes due to the morphology of individual linguistic items. This formula could generate a sentence like: "Rome is attacking you!", but, if we are not careful, it could also produce "The Barbarians is attacking you!". Whenever possible, programmers and designers opt for rephrasing the sentence, to avoid this grammatical issues. The above message, for example, could be rewritten as " You are being attacked by /o nameofnation /o ! ", so the formula would allow for both "the Barbarians" and "Rome". But this might not an option for the target language.

Other games use concatenated strings with variables for nouns and adjectives to give feedback to the player. Guitar Hero (Harmonix 2006) does this through newspaper headlines. So after each part of the game the player is presented with the cover of a newspaper saying something like: "Incredible performance from the Boyz at the Plaza!". The coded string would look like this: " <ADJ> <NOUN> from <BAND> at <VENUE> ! ". The game code will include a list of variables where each 'adj', 'noun', 'band', and 'venue' will be allocated a name and a number to account for quality of performance, synonyms of performance, names of bands, and names of venues respectively. So the above formula could also generate: "Poor show from the Boyz at the Plaza!" or "Unique concert from Claxon5 at the Coliseum!". This formula works relatively well for analytic languages, like Chinese or English (English being one of the most analytic languages of the indo-European group). However, it is prone to errors when dealing with synthetic languages (like most of the other Indo-European languages) due to the high degree of concordance between articles, demonstratives, nouns, adjectives, and verbs in a sentence. If the game code does not allow for this morphological and syntactical agreement, translators will have to limit their options to one gender and one number, which could produce a very unnatural discourse.

Game programmers don't necessarily know grammar or languages, other than C++, Javascript, Assembly, etc., that is the languages they use to programme the video game. They are, however, starting to become

more aware of the complexities related to working with natural languages and their inclusion in game code. Heimbürg (2003), an engineer for Turbine Entertainment, wrote: "[...] people don't even notice when the grammar is good, but they certainly notice when the grammar is bad."

5. Localisation and the software entertainment industry

If the localisation of the game has not been planned for from the very beginning it will end up being more costly both in time and money. The statistics produced by the European organisation Elspa (Entertainment and Leisure Software Publishers Association www.elspa.com/assets/files/0/20060505174657708_319.pdf), and North American ESA (Entertainment Software Association www.theesa.com/facts/sales_genre_data.php) show that video games attract all kinds of players whether young or old, male or female. Twenty years ago games would only be released in English, because the only real market was the US. The common practice nowadays for important titles is the localisation into FIGS (French, Italian, German, and Spanish) catering for a large percentage of the world population with these five languages. The more countries join the computer and IT revolution, the bigger the demand for video games will be. It is clear then that there is a case for preparing most games for international markets, and publishers as well as developers, are trying to find the best way forward. Chandler (2005, p.18) offers valuable advice and a very detailed breakdown of the game localisation process. Here is a brief overview of the three main phases on the localisation of a video game:

- Planning: In the pre-production stages the developer and the publisher will need to determine the level of localisation of for each language. Chandler highlights questions to consider: support of Unicode, international formats for currency, dates and time, subtitles, scalable UI, proprietary tools needed, who will actually do and build the localisation.
- Producing: when will translators receive originals?, how will the assets be organised?, what extra documentation will be in the localisation kit?
- Concluding: who is responsible for giving the OK to the localisation process? Will demos, patches, and updates be localised?

The model in place is still based on the old practice

of developing one game and then thinking about its localisation, which was appropriate at the beginning of the industry since the only market to serve was the national market, i.e., Americans produce games for the US and the Japanese did the same for Japan. In the 21st century, this model is not sustainable. There is no question about the benefits of localisation, and there is no doubt that demand for localisation will keep on growing dramatically as more countries join the technical revolution. It is a question of how to organise it better in order to speed up the process while maintaining quality. There are several things the industry could do improve the localisation process, and the same rule applies as in any other industry: standardisation, regularisation, and automation.

- a. Separate and streamline the different parts of the localisation process.
- b. Eliminate steps in the linguistic and cultural localisation process. Empower translators so they can make corrections directly into the game text.
- c. Avoid the idea that casual cheap inexperienced labour is a necessary evil. It takes more time to check, correct, report, and explain than to translate from scratch for an experienced translator.
- d. Game developer companies could either produce their own localisation software, or help localisation software developers create an application for game localisation by agreeing file formats for UI, in-game text, and subtitles.
- e. Keep bug reports to minimum technical problems that should only be dealt with by coders.
- f. Equally, console companies could supply their own hardware and software to produce localisations, or outsource but monitor the development of a localisation tool kit.
- g. Game developers, as well as publishers and localisation vendors could build up their own term banks through translation memory tools.

6. Conclusion

A video game is a multi-textual interactive entertainment product for mass consumption with shared authorship that is customised to attract audiences in a variety of countries. New generation video games are becoming more immersive than ever, with powerful engines that can control lifelike graphics and physics, as well as high quality surround sound. However, no matter how realistic environments are if players cannot understand the language, or if the translation of the texts has not been treated with the same care as

the rest of the assets, the game experience will be affected in a negative way. Inappropriate translation can easily break the gaming illusion and bring players out of their immersive experience, just like any other bug in the game. Helen Trainor (2003, p.1), a senior manager at the Symbio Group, says: "At a most fundamental level, games tell stories. The localizer's challenge is to make these stories resonate for different cultures." It is also worth highlighting that video games, as a rule, are not meant to be felt as belonging to a particular country, where a nationalistic perspective prevails (JFK Reloaded, America's Army, and Grand Theft Auto being popular exceptions). On the contrary, most games develop fictional worlds, where our real ideological, political or religious world has little or no bearing at all, although they might be loosely based on real human cultures.

We may assume that game localisation is not much more complicated than any other software application, after all, it is just another software product but that assumption would be wrong. The process of localising games for multiple countries has a unique mixture of challenges that are worth studying in detail. It is difficult to realise the amount of linguistic assets that go into a game and how varied these texts are. Because we are dealing with a multimedia product boasting innovative technology, the challenges translators face are highly technical and multifaceted. Within the same project, linguistic localisers usually have to deal with a wide variety of issues that can range from, for example: graphical constraints in menus and popups, the degree of technicality, lip-sync and orality for dubbing, to space and time constraints for subtitling, to name but a few.

From the point of view of translation, this is the only product in which the linguistic transfer is part of the development process and can affect the final version of the game for a particular locale. This level of impact, together with the variety of file formats and textual types, as well as the constant use of variables in localisable strings, makes the translation of video games different from any other type of language transfer.

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