

## CREATIVITY IN THE TRANSLATION OF VIDEO GAMES

*Miguel Á. Bernal-Merino*  
Roehampton University London

---

### INTRODUCTION

Demand for entertainment software is coming from a growing number of countries around the world, and it has prompted game publishers to partially or fully translate their products into more and more languages. From the end of the 90s, and spurred by the unstoppable growth of the utility software market, the translation industry started developing new specialised services to cater for these companies, product of the digital and the Internet era. Such were the demands of the software industry that many of the traditional translation providers opened software-dedicated divisions. Nowadays, most companies offering translation services have had to specialise greatly since the specific requirements of each niche area are too pronounced and technically costly. The demand for video games in many countries such as the US, the UK, Germany, France, Italy, Spain, Japan, and Korea, and the growing complexity of entertainment software, provides such workload for localisation companies that they have to dedicate their workforce to game localisation all year round. The sharp market growth and the development of new translational and linguistic services has come about quite rapidly, and without much attention from translation studies and Academia in general. This is particularly true about the translation of video games, but things are starting to change, even though slowly (Bernal-Merino, 2008).

Language services providers working for the game industry try to set themselves apart by using slogans such as: “not only translate but transcreate”, “precision and creativity”, “maintain the feel of your game in your localised versions”, etc. boasting of a creative power that can be interpreted as opposite to the traditional interpretation of what faithful translation is. At the same time, more universities are starting to include modules of creative writing in their translation programmes (Doloughan & Rogers, 2006), which seems to

strengthen the link between translating and writing from the academic point of view. Most game localisation professionals would agree with Finegan (2006: 56) when he writes:

Quality in the localized version of a game is paramount, just as quality is paramount in all other aspects of the development of a game. The translations must be more akin to creative writing than to literal translation while still conveying all the same information contained in the original.

Furthermore, some game localisation companies include a creative writing exercise when recruiting for new translators. All these facts appear to give the impression that there is a strong connection between the two activities, and that translators are expected, in some cases, to take author-like creative control of the text being translated. This article will analyse some aspects of game localisation in the search for the creative element involved in their translation.

#### TRANSLATORS AND THE VIDEO GAME INDUSTRY

At first sight, the translation of video games might not seem to be substantially different from other types of polysemiotic translation, it actually has some things in common with:

- Software localisation: It tends to be technical in content, succinct in length, and functional in nature (see Esselink, 2000; and also Quah, 2006).
- Audiovisual translation: The oral quality of game dialogue needs to be kept in the translation both in the dubbing (see Chaume, 2001), and in the subtitling (see Díaz-Cintas, 2007), each with their time and space constraints.
- The translation of books for children: The playful and imaginative nature of these texts requires an equally inventive approach from the translator (see Gillian, 2007).

However, translators going into game localisation will have to deal with a very particular mixture of challenges (Bernal-Merino, 2007), as well as understanding the way the game developer and publisher industries work (Chandler, 2005). There are many different processes that come into play when localising a game for foreign markets, and however they might have been planned very carefully, unexpected problems can reduce significantly the quality of the final product. Project delays, multiple levels of outsourcing, variety of file formats, team teletranslation, lack of relevant multimedia

context, and unmoveable release dates, have created a hectic new professional practice within the translation industry that deserves the attention of translation studies.

In the eyes of many game journalists and fans, the linguistic quality of a game plays an important part in making or breaking the success of a game whatever its locale. “At best, a good translation enables us to enthuse and empathise with the characters we are interacting with, making the alien recognisable and understandable. At worst, it turns and otherwise brilliantly realised game world into a soulless shell of confusion and lost potential” (VV. AA., 2006). The fact that, for example, very few American games succeed in Japan and vice versa (the two countries with higher numbers of fans and professional gamers) shows that there is still a long way to go as far as game localisation is concerned. Nevertheless, some video games have crossed the linguistic and cultural chasm entering the top ten lists. Localisers and translators seem to hold part of the answer. By virtue of being culture mediators they can advice game publishers on how their products might be more likely to be welcomed and enjoyed in specific countries, because they have practical and updated knowledge of the local culture.

It is very important for translators to know the way the industry behind it operates, since it dictates the very specific and complex way of receiving and delivering work to the localisation team (Chandler, 2005). Most games take between one and two years to be developed, but only a small fraction of this time is reserved for localisation. In some cases, the translation of linguistic assets may start when the script is closed, but it is not rare to find that some projects may start a lot later, when the game is in beta stage, i.e. when the game is almost finished. When game development does not stick to project milestone deadlines, the localisation process becomes squeezed between their finishing day and the sim-ship (simultaneous shipment) release day, which is an unmovable deadline because it obeys seasonal market forces. In these rather frequent cases, publishers may double up on the number of localisation agencies and/or translators and testers to compensate for the delay. However, team-translation and coping with long days is not the only challenging part of working for the game localisation industry. Because of the strict observance of copyright laws, and the fact that often the video game may not be actually available for translators, many have to work blindly from a “naked” spreadsheet. Díaz-Montón (2007: 7) gives us a couple of examples that demonstrate how tricky and frustrating translating like this can be:

“I’m not sure I can make this much clearer...” and “You ready to go?” are two strings of dialogue which, when translated into FIGS (the industry acronym for

French, Italian, German, and Spanish), illustrate some of these problems. In the first example, it is impossible to know whether the speaker is male or female. [...] In the second instance, the translator can only guess whether the speaker is addressing to one person or several individuals, and whether the relationship between them is formal or informal.

Solving this type of problem is one of the first “creative” tests that translators face when entering this field. Often, the only viable option is to rephrase avoiding any use of words that are marked by gender, formality, or number referring to the people involved in the exchange. For example, the previous sentences could be rephrased as: “Me temo que no lo puedo decir más claro” [I’m afraid I cannot make this much clearer], and “¿Todo listo?” [Everything ready?]. This type of solutions, however, are neither always available nor advisable.

From the translator’s point of view, information deprivation and lack of context is far more taxing than time constraints, as well as being more error-prone since working without context and cotext hampers their decision-making process, prolonging their task and generating, at best, a functional but rather neutralised rendering. Several things can go wrong when localising a game such as a confusing UI (user interface) or poor voice acting. One of the most common complaints we can read about in internet forums is the lack of translation quality, and how sometimes they have to go back to the original version to find out what to do and how. In many cases, even though the game might have been translated and it is playable, fans fail to be impressed because the poor quality of the localisation defeats its own purpose: to thrill and engage the gamer. In deed, bad localisation can be worse than partial or no localisation because of the expectations it raises. Language and culture are ever-present elements in us and the things we do, players cannot help but notice continuous serious mistakes in the game, and it will erode their trust in some developer and publisher brands. This happened with the long-awaited release of *Elder Scrolls IV: Oblivion* where it was obvious by the amount of mistakes and typos in the texts that the linguistic testing had not been finished. A group of fans of the game put their heads together and released a patch several months later with a much improved translation. Something similar, but even more drastic, happened again with *Age of Pirates: Caribbean Tales*. The translation was not the issue this time, the dubbing quality of the Spanish version was. It featured in most Spanish game sites (such as Meristation). Everybody agreed that the game was rather good and fun to play, but dubbing actors sound so terribly amateur that actual amateurs got together and produce a new patch to improve the official Spanish version.

But it is not only the possible typos, porting issues, and proofreading mistakes that make game localisation different. A great deal of thought goes into the development of any game, from the look of it to the storylines and the names of characters, so creativity is going to have to play an important part when this content needs to be translated. Mangiron & O'Hagan (2006: 17) give some very good examples on this when talking about the localisation of *Final Fantasy*, the popular Japanese video game series. The authors quote, among others, the example of a katana named 花鳥風月 (*kachōfūgetsu*). It means “flower, bird, wind, and moon”, an expression used in Japanese to signify “the beauties of nature”. This magical sword gives players triple points when used in battle. The US name for this weapon was “painkiller”, which may sound as an outrageous suggestion, but apparently it was adequate because it was considered to be in synch with US gaming culture, which made it OK and totally valid for game localisation.

However, entertainment software products contain a lot more than the actual in-game dramatic dialogue. There are a variety of files, usually in different formats, with text for the instructions, the packaging and general merchandising, technical and legal information in the readme and EULA files, etc. All these texts are different in style and purpose, and not all translators will be *ab initio* able to cope with the different linguistic nature of these documents. Finegan (2006: 61) writes about some of the skills game translators need to have in this way:

The real challenge for a game translator is being able to balance the different styles of writing and translation required in games. A typical game will contain succinct technical text in the descriptive strings in the user interface, the game manual and help system; and it will contain creative writing in the story and the audio script. Delivering quality translations in the various styles is a special skill. Fortunately, most game translators are also game players and are more than prepared to face the challenge.

Nevertheless, the full extent of translators' creative input in games cannot be fully understood outside the ludic nature of video games themselves, and the globalised markets we live in.

#### GLOBALISATION, INTERNATIONALISATION, AND LOCALISATION

Globalisation (often abbreviated as g11n) refers to the process companies need to undergo to be able to cater for international markets from within each territory. Companies with international presence need to go a step further and tailor products and campaigns so that they can combine their original expertise

with the local knowledge, maximising customer satisfaction and ROI (Return on Investment). As Edwards points out (2007: 31), this is a completely different ball game to the importing and exporting practice of the twentieth century. In the new millennium “[...] lack of geocultural literacy is a real and an ongoing problem in today’s business environment; it affects a wide variety of businesses; and it leads to customer mistrust within the United States and abroad, which yields negative impacts on public image and revenue.” It would seem that companies that aspire to establish themselves in the global marketplace have really no choice, because there is also a price to be paid for “not localising” (DePalma, 2006: 31). Having said that the benefits they stand to make are more than worth the investment, not only because of the increase in revenues, but also for the added value to the brand as international providers of well-localised entertainment software, and what that means for future ventures.

While consuming imported goods may still retain some of its “cool” factor, consumers in the 21<sup>st</sup> century expect more from the software products they purchase, they expect them to have the option of adapting to their individual requirements and not vice versa. In other words, gamers are happy to devote many hours to complete the game, but “companies cannot assume patience among foreign customers in dealing with language differences” (Mandel 2000: online). Practical knowledge about other cultures and how to implement the desired gameplay experience for the various international versions that are going to cater for thousands of players around the world is no small task.

In addition to business acumen, globalisation demands a well-prepared, geographically literate workforce, primed for an environment in which political and cultural differences are frequently pronounced and must be carefully managed. This is contrary to some perceptions that the worldwide spread of information technology and a “global culture” has effectively created a “borderless” world, which has led some people to suggest that geography is not as significant or even not important at all. On the contrary, does more to actually emphasize the local within the global. (Edwards, 2007: 29)

Internationalisation (i18n for short) refers to the process products have to undergo in order to be easily adapted and marketable in other territories. In other words, products have to be designed in a localisation-friendly way to facilitate and speed up the translation process maintaining the same level of quality as the original, because in fact, it is the original in the other languages, and players, whatever their culture, should feel it as such.

Most game developing and publishing companies are starting to apply i18n criteria to their products, but change is slow:

Over the years, standardisation has featured strongly to improve the level of internationalisation in applications [...] enabling [software] companies to release an increase amount of languages in a reduced time to market – and without having to invest heavily to do so. Unfortunately, at this time this is not the case in game localisation. (Kehoe & Hickey, 2006: 28)

Localisation (also L10n) is obviously the third piece of this triangular puzzle, and when talking about multimedia interactive entertainment software products, a large amount of professionals, not only translators, are needed. Different companies have different formulas for success depending on the nature of the game. María Loureiro, Localisation Manager at Pink Noise, writes:

La traducción del guión exige un grado muy alto de creatividad. Siempre hay que tener en cuenta que los videojuegos se localizan, no se traducen. Esta creatividad no se refleja sólo en la adaptación de los diálogos, sino también en la adaptación de nombres de personajes, topónimos, nombres de armas, enemigos, etc. Es importante reseñar que la gran mayoría de estos términos suelen ser juegos de palabras en el texto de origen que deben mantenerse en la medida de lo posible en el texto final. (Loureiro, 2007: 2)

On a similar note L. Swan, from Nintendo of America, explains:

Our first goal is to make sure that we're capturing the spirit of the original game, so if there is a joke which has a certain meaning in Japanese we give that to our creative writing team, and they try to write a new joke which has the same effect as the original. (VV.AA., 2006: 77)

In the same way to when we enjoy a book or a film, in video games there is often text and dialogue to be read, or listened to. Both in literary and filmic terms the author or director wants us to empathise with the protagonist of the story and follow his/her story. As readers and viewers, we accept the non-influential nature of this relationship with the central characters of these creations. We are spectators of a story we cannot change nor even influence in the slightest. Video games aim to establish a very different type of relationship with players (who are also viewers and readers), that of “masters of their own destiny” in a virtual world. That is not to say that games are boundless, since there is normally a very clear mission to fulfil, but that the way each player reaches that end is always unique to their personality, because it is linked to their own skills in prevailing over the challenges the game throws at them. What this means for the localisation team is that they have to enthuse players who belong

to other cultures with wanting to play, and to move them with the stories and characters of the game, so that they can come to an enjoyable and successful ending beating the game. The nature of entertainment software products requires, therefore, a kind of translation completely geared towards the user. Game publishers need to bring not only the language, but also the characters and the whole game experience closer to the player. The place of origin or the language of development of the game is not relevant to video game fans. The game has to be not only linguistically, but also culturally tailored since it is not going to tell just any story, but the player's story.

Richard Honeywood, head of localisation at Square Enix, a major game developer and publisher, explains that linguistic changes are not the only things that they might consider changing for the localised versions of a game:

For *Final Fantasy IV*, we increased the experience points, reduced monsters HP [hit points], and reduced the number of random encounters to make the gameplay smoother for the North American audience (VV. AA., 2006: 77).

From a game featuring Tiger Woods, to another based on *The Hobbit*, World War II, or a science-fiction RPG (Role Playing Game), it is obvious that different areas of knowledge and imaginary universes are going to be involved. However, it is not just the drastic thematic changes from game to game, nor the variety of textual types within one single product, but the actual nature of interactive games, and the type of bond they establish with players. Being a product created for personal entertainment, players want freedom of choice, customisation options to choose their avatar and mode of play, together with an immersive adventure that makes sense within their language and culture. The game industry has realised that they cannot provide this type of experience if the player is to be taken into the game by a foreign language, or assuming premises that do not belong to their understanding of the world. This is where creative translation comes into play. Translators are encouraged to produce an exciting text that feels right with the game and enhances players' experience, for their language and culture. Honeywood, explains:

Sometimes the planners are so impressed with changes to the translated version, they give us extra information or add extra scenes into the game to improve the presentation of the changes. It's more like we are planning the gaming together than translating (VV. AA., 2006: 77).

These statements seem to take us away from the habitual notion of translation or localisation as a mere lexical pairing of words. Wider and more complex processes, not to speak of the large array of professionals required,



are involved in game localisation, and they are all justified by the consumer-oriented society of the new millennium.

#### LUDIC CREATIVITY

Although creativity is often linked to the classic Arts (music, painting, sculpture, etc.) creative thinking can manifest itself in a variety of ways depending on the intellect driving the process and its purpose. The world has many and splendid examples of it: from Mozart to Pasteur, from Gaudi to Rockefeller, and from Homer to Einstein. The type of creativity required in the localisation of video games is one that allows players to immerse themselves in the game experience and the activities linked to beating the game, without being distracted by more prosaic issues such as poor translation, truncated texts, character encoding, or unreadable UI (user interface). This ludic creativity required in video games drives many other types of creativity, for example, linguistic, graphic, or musical. Game localisation professionals specialise in bridging the creative gap, and catering for the preferences of players in each different locale. Of course, not all video games require the same amount of changes, but certain adjustments will make players enjoy the gaming experience better.

Video games draw very often on different elements from popular culture such as films, literature, comic books, TV shows, or sports. When this is the case, the text to be translated will require a proficient understanding of the jargon used, and an accurate rendering into the locale of that particular terminology. If the game is, for example, a rendering of *Sherlock Holmes* as written by A. Conan Doyle, the first step for translators would be to acquaint themselves with the literary universe and the official translation of the books, as well as the films and comics. There is not much freedom in this case; translators are constrained by pre-existing common knowledge and a body of fans that has very specific expectations for the game universe. Betraying those expectations with a localisation that disregards the existing known translation of that universe will probably reflect on a poor game experience, fans discontent, and low sales.

On the other hand, if the game is based on a completely new idea, or at least new to the receiving locale, the degree of freedom is considerable, and it will require a rather creative and playful approach to the task, similar to that required in the translation of children's literature. Think of the translation of *Alice in Wonderland* or *The cat in the hat* for instance. Of course, no game is produced in a vacuum, they all may have elements of existing creations, but the limitations are less strict when translating a bright new game concept, such

as *Animal Crossing* or *Viva Piñata* than when translating a well-known one, such as *James Bond: Quantum of Solace*.

There are several things that may need changing in a video game before being released in any given territory. Apart from the technical aspects of it, having to do with hardware and software, linguistic and cultural data has to be crosschecked to make sure players in each territory will enjoy the game without easily-avoidable misunderstandings and disappointments. Some modifications may originate in marketing departments, but very often translators are some of the very few people in the whole process that have the knowledge necessary to raise these issues because they are closer to both cultures. The following paragraphs give a brief illustration of the most common issues and how they are dealt with.

### *Characters*

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.

### *Puzzles*

Most games, specially role playing games, have riddles, word games, and all kinds of clever puzzles that are linguistically based. They obviously have to be recreated from scratch. Tony Van, executive producer at Ubisoft says in an interview with Chandler:

I remember a story about translating the second Monkey Island game. There was a whole puzzle dealing with card catalogs. It's solved by looking up certain cards in certain orders. Well, once you translate this text the cards are no longer in alphabetical order, and now you have to recode that entire puzzle. On top of that, each card catalog had a humorous title that had dialogue jokes attached to it, which also needed to be translated correctly... translating humor is the WORST! (Chandler, 2005: 56)

### *Graphics*

This type of modifications may have to do with linguistic issues (such as verbal information contained in graphic formats), marketing issues (change of game sponsors for certain locales) political issues (such as the ban on

swastika representations in Germany), etc. In short, games may display a lot of information that has been encoded in a graphic format for a variety of reasons. When those images are culture sensitive, they have to be modified.

[...] the Japanese games market is one of the biggest in the world. However, it is very challenging for western games publishers to successfully release titles into Japan. To help products meet gamers expectations, it is often necessary to change character models, e.g. one of VUG product IP is “Crash Bandicot”. In the USA and Europe the model has three fingers and a thumb but the Japanese version of the character has four fingers and a thumb. (Kehoe & Hickey, 2006: 29)

### *Storylines*

The whole premise of a game could be altered if it is understood that it could generate discontent amongst government officials as well as players. This example from Kehoe & Hickey (2006: 29) illustrates the point perfectly:

[...] the majority of issues that with stories are specific to local cultural differences. [...] in Warcraft III - which VUG released several years ago – part of the story involved a son betraying his father. Due to the importance of honour and respect attributed to the family unit in Korea, this betrayal aspect of the Warcraft III story had to be modified before the game was aloud to be released in Korea.

### *Soundtrack*

A popular technique to add to players’ enjoyment in the game world is the one utilised in sports video games. In these games, popular radio and TV commentators will increase the immersion in the action, which features real sports people that who sometimes contribute with their image, signature moves, and voice. Examples of this can be seem in the yearly release of video games such as *FIFA*. A similar strategy can be observed in racing games, some of which use music and radio stations as one of their added value features, and they might have an FM radio option that changes depending on the locale of the player or where the race is taking place.

### *Literature*

In *Brain Training*, a game released for the handheld console Nintendo DS, one of the mini games is called “Reading aloud”. It offers a selection of paragraphs from very well-known novels. There was no intention of translating

the English original texts (with authors such as Dickens and Eliot), instead they looked for equally well-known authors in each of the languages the game was released in, such as Galdós, Montesquieu, and Vasari for the Spanish, French and Italian versions respectively.

### *History*

Many RTS (Real Time Strategy) games focus on real-world historical events and this is probably one of the most politically delicate issues a game developer or publisher has to face because the interpretation put forward by the game maybe in direct conflict with the official position of the countries involved. Tom Edwards writes about this in *Multilingual*:

When I was working on one version of the PC-based game Age of Empires, I received negative feedback from the Korean Ministry of Information. In the game, the Choson empire on the Korean peninsula faced off against invading Japanese forces and was overwhelmed, which is what the historical record indicates. The Korean government officials vehemently disagreed with this “interpretation” of history, claiming that the Choson people were never overpowered to the degree shown in the game. (Edwards, 2008: 27)

The game localisation world can be so incredibly extreme that some Japanese games are re-translated from their American version into the original Japanese and sold again:

The changes that a videogame undergoes during localisation have been so significant that they have sometimes resulted in the translated version being repacked and sold back to the market of origin, as a special edition. These “international versions” are increasingly being dubbed “final mixes” – indicating how localising is now frequently reckoned to improve on the original release creating a definitive version. (VV.AA, 2006: 77).

The most important fact to realise when translating for the video game industry is that these texts are not only meant to be read or listened to, but to transport players into a virtual world and facilitate their playing. Whether the text belongs to an in-game menu, a dialogue, or the instructions in the manual, it is all geared towards making the virtual experience possible, believable, and stimulating. Players may be attracted by the graphics or the appealing storyline of a game, but poor localisation is certainly going to frustrate and anger those same enthusiastic players because they are reminded constantly of the fact that it is only a game that has been badly translated to squeeze a bit more money out

of them. Internet forums are full of disenchanted players that complain about it all the time. Culture and language permeate every corner of any video game and without good translation and localisation, not only there is no aesthetic experience, there is no ludic activity, there is no game to be enjoyed because the game turns into an annoying experience, just the opposite of what it has been designed for.

## BIBLIOGRAPHY

- Agost, R. & F. Chaume (eds.) (2001). *La traducción en los medios audiovisuales*. Castellón: Publicacions de la Universitat Jaume I.
- Bernal-Merino, M. (2006). "On the Translation of Video Games", *The Journal of Specialised Translation* 6: 22-36. <[http://www.jostrans.org/issue06/art\\_bernal.php](http://www.jostrans.org/issue06/art_bernal.php)>.
- Bernal-Merino, M. (2007). "Challenges in the translation of video games", *Tradumàtica* issue 5. Universitat Autònoma de Barcelona: online. <[www.fii.uab.es/tradumatica/revista/num5/articles/02/02art.htm](http://www.fii.uab.es/tradumatica/revista/num5/articles/02/02art.htm)>.
- Bernal-Merino, M. (2008). "Training translators for the video game industry". In: J. Diaz Cintas (ed.) (2008): 141-55.
- Chandler, H. (2005). *The Game Localization Handbook*. Massachusetts: Charles River Media.
- Chaume, F. (2001). "La pretendida oralidad en los textos audiovisuales y sus implicaciones en traducción". In: R. Agost and F. Chaume (eds.) (2001): 77-88.
- DePalma, D. (2006). "Quantifying the return on localization investment". In: K. Dunne (ed.) (2006):15-36.
- Díaz-Cintas, J. (2004). *Teoría y práctica de la subtitulación*. Barcelona: Ariel.
- Díaz-Cintas, J. (ed.) (2008). *The Didactics of Audiovisual Translation*. Amsterdam/Philadelphia: John Benjamins.
- Díaz-Montón, D. (2007). "It's a funny game", *The Linguist* 46, 3: 6-9.
- Doloughan, F. & M. Rogers (2006). "Mediation and regulation of textual space: the role of creative writing in translation training". In: I. Kemble & C. O'Sullivan (eds.) (2006): 34-43.
- Dunne, K. (ed.) (2006). *Perspectives on Localization*. Amsterdam/Philadelphia: John Benjamins.
- Esselink, B. (2000). *A Practical Guide to Localization*. Amsterdam/Philadelphia: John Benjamins.
- Edwards, T. (2007). "Geocultural literacy, part 1", *Multilingual* 90, issue 18: 29-31.

- Edwards, T. (2008). "Time (in)sensitive content", *Multilingual* 93, issue 19: 25-27.
- Finegan, P. (2006). "Games: quality, localization and the world market", *Multilingual* 84, issue 17: 56-61.
- Kehoe, B. & Hickey, D. (2006). "Games Localisation", *Localisation Focus* 5, 1: 27-29.
- Kemble, I. & C. O'Sullivan (eds.) (2006). *Translation and Creativity: how creative is the translator?* Proceedings of the Conference held on 12<sup>th</sup> November 2005. Portsmouth: University of Portsmouth.
- Lathey, G. (ed.). (2006). *The Translation of Children's Literature: A Reader*. Clevedon, Buffalo, Toronto: Multilingual Matters Ltd.
- Loureiro, M. (2007). "Paseo por la localización de un videojuego", *Tradumàtica*, issue 5. Universitat Autònoma de Barcelona: online.
- Mangiron, C. & M. O'Hagan (2006). "Game Localisation: unleashing imagination with 'restricted' translation", *The Journal of Specialised Translation* 6: 10-21. <[http://www.jostrans.org/issue06/art\\_ohagan.php](http://www.jostrans.org/issue06/art_ohagan.php)>.
- Mandel, R. (2000). "Unravelling the mysteries of game localization". <<http://www.avault.com/articles/getarticle.asp?name=local&page=1>>.
- Quah, C. K. (2006). *Translation and Technology*. Hampshire/New York: Palgrave Macmillan.
- VV. AA. (2006). "You say tomato", *Edge* February: 74-81.