The Online Ecology of Literacy and Language Practices of a Gamer

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ABSTRACT

Previous studies have examined how to integrate video games in formal education settings across disciplines and from various perspectives. However, few have explored digital literacy practices prompted by gaming as a fan practice. Drawing on *New Literacy Studies* frame of analysis, this qualitative case study attempts to unearth the literacy and language learning practices of Selo, an active gamer who translates games from English into Spanish for fun and whose translations prompt online language discussions with other gamers in the *fandom* (an online space where fans share their activities). With interviews, online observation and screencast videos, we analyse Selo's fandom, literacy practices and workflow when translating, and the language learning events in the online communities of gamers he is involved in. Results show that (1) Selo's fandom is a complex semiotic social space with users exhibiting varying degrees of involvement, functions and roles (players, readers, commenters, translators, *beta-testers*), (2) Selo has a sophisticated set of literacy skills (IT, linguistic, sociocultural), and (3) by resorting to other fans' feedback online to offset his language deficiencies, Selo and other fans learn situated, meaningful language items under authentic conditions of textual production.

Introduction

From a socio-constructivist perspective, contextualized social interaction in language learning is key to produce satisfactory learning outcomes (Lantolf & Thorne, 2006). Providing learners with rich, authentic experiences similar to the experiences outside the classroom stands out as an indispensable teaching practice:

> "Learning a language like English or Spanish, or a social language like the language of physics or civics, is hard to do in the isolation of the four walls in a classroom. Furthermore, such isolation privileges those who have already had relevant experiences outside the classroom and have already thereby begun an authentic process of language development" (Peterson, 2013, p. xii).

Video games (for abbreviation, *games*) encapsulate a wonderful excuse for incorporating learning and situating meaning in rich environments. Games as a context of study and learning have been researched consistently over the last years, but the virtual social spaces built around them need further attention from pedagogically useful perspectives. According to Barton and Lee (2013), a better understanding of online environments is necessary to unfold the changing nature of language, language learning, and the dialogue between literacy practices in and outside the classroom. The Internet expedites the creation of spaces to use and reflect on language and communication. Language is central in the constant learning happening in online worlds, and because of the circulation of the Internet, vernacular language practices are more circulated and public. We undertake this line of thought as the guiding principle in this paper.

Literature review

Video games and learning

Research in video games in education (also, *serious gaming*) is relatively new but rapidly growing. An important bulk of studies assume that integrating games in the learning process favours students' motivation and self-accomplishment in a welcoming yet cognitively challenging environment: "games are pleasantly frustrating," states Gee (2007, p. 131). This stays far from traditional paper-based classrooms, which are centred in the oral and written transmission of knowledge. Games are also said to promote more significant learning: "I don't want to give kids video games in schools, I want to give them worlds that make words meaningful, whether these worlds are virtual, real, or a mixture of the two" (Gee, 2007, p. 4).

Video games are often seen as an instrument and an environment to transfer and teach curricular knowledge, mainly Social Sciences (Wouters et al., 2013; Young et al., 2012), Natural Sciences (Steinkuehler & Duncan,

2008) and language (Gee, 2007). Beyond curricular content, some studies attempt to demonstrate that games can act as a motivational tool or driving force to develop transversal and transferable skills, such as improving perception and attention keeping (Green & Bavelier, 2003), collaborative problem solving strategies (Chen & Hwang, 2017), digital and traditional literacy (Gee, 2007; Steinkeuhler, 2007), IT and informational skills (Hayes, 2008), systematic thinking (Squire, 2005), ethical reasoning (Simkins & Steinkuehler, 2008) or scientific reasoning (Steinkuehler & Duncan, 2008). There is also the hypothesis that tracing back what learners do while playing games and modelling learners' performance can improve the design and application of assessment instructions and instruments (Shute & Becker, 2010). With no conclusive results yet, this may be a promising field of research using learning analytics (VITAL Project). From a sociocultural perspective, games are seen as an architecture and the experience of gaming as a complex system with myriad ecological relationships (Davidson, 2011; Gee, 2007). Lastly, in line with *gamification*, some studies examine how the design of "just-in-time" instructions from games can be applied in pedagogical contexts (Gee, 2007).

These studies do not fully account for the role of situational and contextual factors around or beyond the gaming experience. A frequent criticism is that studies on games in formal contexts adopt excessively positivistic perspectives. They depart from more or less interventionist experiments, with presumptions of an ideal technological use at all levels (policy, curriculum, school, teacher, student) and variables (material, competence). They often disregard that teachers might not be sufficiently skilful at games and gaming, which hinders adequate pedagogical intervention by means of scaffolding techniques. Teachers must know the games as pedagogical tools in order to lead students into deducing connections between games, gaming experience, curricular contents and pedagogical objectives (Kim et al., 2009). Additionally, studies about gaming in formal contexts do not contemplate the conditions in which young people normally play in their leisure time, in reference to informal contexts of learning:

> "[T]here appears to be a disconnect between the possible instructional affordances of games and how they are integrated into classrooms. Games are often multiplayer and cooperative and competitive; they engage players in several hours of extended play, allow rich "hint and cheat" websites to develop around player affinity groups, and are played from weeks to years. However, most schools trade off extended immersion for curriculum coverage, individual play, and short exposures, goals that are not well aligned with engaging video game play." (Younes et al., 2012, p. 80)

These studies do not fully consider that students may have previously acquired skills and knowledge from their gaming experiences, with fellow gamers in local contexts or within international communities online. Besides this lack of empirical studies connecting informal learning and gaming, a recent surge of interest in communities of young people conducting literacy practices like *scanlation* (fan-made scanning and translation of manga) (Valero-Porras & Cassany, 2016) motivates our interest in what gamers do online, as it appears to be a rich context for the study of language learning online (Sauro, 2017). Other studies cover related topics like *fanfiction* and how fans build identities online (Black, 2007), or how to incorporate fan practices into the language classroom by looking to fan-made archives for models of tasks (Sauro, 2014) or feedback opportunities (Behrenwald, 2012).

Research questions

Our main objective is to explore and analyse what gamers actually do and learn motivated by their gaming activity in informal, online settings. We focus our study on the case of Selo, a Spanish gamer. Through Selo's experiences and literacy practices, we access other online communities of gamers, too. We propose three research questions:
- How do gamers organize themselves in online spaces?
- What digital literacy practices do gamers conduct and how?
- What language learning do gamers experience and how?

Theoretical framework

Affinity spaces

With the objective of understanding how gamers organize themselves online and what they do and learn in online spaces and how, we consider the concept of *affinity spaces*. Related to the notion of *communities of practice* (Lave & Wenger, 1991), affinity spaces are concerned with a group of people characterized by the

"allegiance to, access to, and participation in specific practices that provide each of the group's members the requisite experiences" (Gee, 2000, p. 105). According to Gee (2007), this allegiance is primarily attached to shared practices and endeavours and secondly to the other people in the group inasmuch as they share culture, objectives or particular traits. Affinity members need other people in the group —and some discourse and dialogue— so that those practices can exist. But the practices and the experiences from them guarantee the allegiance to the group, and not members themselves. Affinity spaces are an open field for the popular culture of mass media (films, television series, video games, literature). Common among young people's daily lives, digital technologies and social media create new, enhanced opportunities for affinity spaces, fan practices, discourses and dialogues to spread out over the Internet (Gutiérrez-Martín & Torrego-González, 2017). Affinity spaces are a special kind of *semiotic social spaces* (Gee, 2005). Semiotic social spaces and affinity spaces share that they are concerned with the way in which people construct and interpret meaning. For instance, in a real-time strategy game like *Age of Empires,* people may accept warfare tactics as normal practices, but they most probably will not in their daily, non-virtual routine. In popular culture, *fans* are the members of the affinity space, and the *fandom* (a portmanteau term of *fans* and *kingdom*) is the affinity space around a certain practice holding them together. Literacy practices in affinity spaces of the *fandom* are diverse, including *fanfiction*, *fanzine*, *fanart*, *fandubbing*, *fansubbing*, *scanlation*, or *fan translation of games*.

New literacy studies

In order to comprehend the literacy practices and language learning of gamers online, we draw on the theoretical lenses of *New Literacy Studies* (NLS) (Barton, 2007). NLS do not construe reading and writing as universal and context-free cognitive skills. Instead, NLS promote an ecological and holistic perspective on reading and writing, which are conceived as social practices with social purposes and objectives. Human groups actualize reading and writing, bound by sociocultural and historical contexts. NLS have covered both dominant (official, institutional, in-school) and vernacular literacy practices (leisure, private, out-of-the-school). Most recently, studies have attended to *digital literacy practices*, which are social interactions mediated by written texts —in a broad, multimodal sense of *written*— generated and/or distributed on the web (Barton & Lee, 2013; Gillen, 2014). NLS have proven successful in analysing the ecology of digital literacy practices of a *scanlation* community (Valero-Porras & Cassany, 2016), by applying the constituent parts of a literacy practice (Barton, 2007): (1) participants, roles and relations, (2) spaces and environments, (3) purpose and social context, (4) artefacts and tools, (5) activities, (6) values, beliefs and attitudes, and (7) routines, norms and patterns of behaviours. This paper attempts to translate this into the analysis of a community of gamers. Gamers consume global media cultural products (*video games*), and transform such products into popular culture resources, with a high degree of appropriation. Such appropriation include *hacks* —adapted or sequel games based upon original games (Muñoz Sánchez, 2009)— or the fan-made translation of old games in Japanese or English into local languages (O'Hagan, 2009). In the process of transforming games into a product of popular cult, gamers meet, talk and (re)act online developing practices and constructing discourses and meanings relevant to specific contexts, such as the *affinity space(s)* they are a member of (Gee, 2005). This may occur locally and transnationally, given the affordances of the Internet.

Methods

This is a qualitative, exploratory case study, with instruments from virtual ethnography (Hine, 2015). We gain access to one informant who represents our case study: Selo (Figure 1), a young gamer, whose active life online and literacy repertoire seem like a suitable platform to access the fandom of gaming, the online ecology of fan literacy practices Selo and other gamers conduct, the social relationships they maintain and the language learning they extract.

MegaAdicto!!!
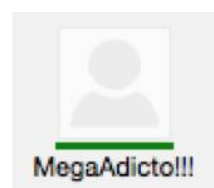
Selo, a 30-year-old male
gamer from Catalonia

Figure 1. Selo's avatar and description on online forums

Access to Selo

The eligibility criteria were ages up to 30 and a dynamic fan activity online. We accessed gaming sites and privately communicated with potential informants. Two informants before Selo declined to participate.

We present Selo's case because previous studies describe fan translation mostly in terms of the digital skills needed to hack and translate the game (Muñoz Sánchez, 2009; O'Hagan, 2009). However, these do not account for the literacy and language learning events involved in the process of fans translating games. During the initial interview, we learn that Selo conducts and promotes multiple literacy practices around gaming (translating games), stimulating online discussion on language. Given Selo's profile, we think we can provide a detailed photograph of the literacy and language learning practices in online communities of gamers.

Context

Selo is a 30-year-old male from Catalonia. He is bilingual in Spanish and Catalan and studied English through compulsory education (B2 level). He spends large amounts of his spare time playing games. He does not have a specific genre of preferred games. He uses a desktop computer and some emulation software to play console-based games. Thanks to Selo, we access the communities in which he actively participates:

- *Romhacking.net*, an international, multilingual online community with forums but also repositories of fan-made hacks and translations of games.
- Four Spanish-speaking online forums about games and gaming; reviews, guides, cheat-codes (lists of commands to modify the behaviour of a game), news and related information.

Data collection

Fieldwork extended from December 2016 until June 2017. Our data collection instruments are interviews, online observation, videos with screen recordings and email conversations.

Interviews

Initially we conducted an exploratory, semi-structured, in-depth interview lasting about 60 minutes. The interview with Selo took place face-to-face in Selo's town (17/Dec/2016). We transcribed selected excerpts of the interview. The interview covered five topics:

- Digital profile: access to technologies, daily routine online.
- Digital identity: email, social networking.
- Gaming: consoles, games, time spent, transition from a gamer offline to a fan online.
- Conflicts: misunderstandings online, management of personal sensitive data.
- Fan culture: interests, practices, content curation and production, process of fan translation.

Online observation

We conducted non-participant online observation with two objectives: (1) to describe the online spaces where gamers and fans meet, and (2) to explore the most relevant literacy practices. These data were stored by means of screenshots, annotating all relevant data of the sites (visitors, comments, informant's profiles). We conducted the online observation at different times during April and May 2017.

Screencast videos

As part of the online observation in relation to fan-made translations of games. Selo provided the whole process of translating a game of his choice, until the moment he made the translation public for the community on *Romhacking.net* and announced it in the forums that the translation was available for download. Selo used screencast software to record his screen activity, and sent the video files on April, 30th 2017.

Emails

As a secondary data collection instrument, we stored the email conversations with Selo. Selo was ready to clarify any doubt regarding his online activity, the videos or any other issue. We initiated email conversations on November 30th 2016, the day in which we first contacted Selo through *Romhacking.net*. We last contacted via email on September 18th 2017.

Corpus of data

The corpus of data is composed of 1 interview (60'), 55 screenshots of Selo's online fan activity, 8 screencast videos in which Selo shows the process of translating a game and publishing it online, and 47 emails with informal contacts between the Selo and the researcher to make arrangements to meet for the interview, send the videos or links and clarify Selo's perceptions regarding some issues (the concept of "gamer" or "geek").

Table 1. Corpus of data

	Interview		Observation		Videos		Email	
	No.	Min.	Screenshots	Words	No.	Min.	No.	Words
Selo	1	60	55	720	8	79	47	3450

Ethics

In conformity with the International Association of Internet Researchers (Markham & Buchanan, 2012), we attempt to guarantee the anonymity, confidentiality and safety of all subjects directly or indirectly involved. Our universities validated the ethical standards of our research.

Analysis

We undertook a descriptive and inductive codification of data (Saldaña, 2015). Initially, we classified our data according to their nature: Selo's perceptions and opinions, presentation of translations on online forums, discussion on translation and/or language, other communication among members of the fandom. Following Valero-Porras and Cassany (2016), we coded the data under the constituent parts of a literacy practice, as detailed in the Theoretical Framework. We triangulated multiple sources of data, covering practices (videos, observation) and perceptions (interview, emails).

Results

Ecology of Selo's fandom

As a gamer, Selo has always been involved in online communities to access information, comment on new games or meet other gamers with whom he can play. One of the most active sites about gaming world-wide is *Romhacking.net*. *Romhacking.net* is mainly devoted to hacks and translations of games. Hacks are some sort of spin-off or alteration of a given game, while translations change the scripted text players read. Retro games from the 80s, 90s and early 2000s were not commercialized outside Japan or the USA, so they are only available in Japanese and/or English. Since such games will not be translated into local languages, some gamers presently adopt the role of fan translators. They produce translations for the *Romhacking.net* community in 29 languages, including Spanish. In June 2016, Selo decided to start translating since, he reports, Spanish was underrepresented on *Romhacking.net*.

> *There was a boom of fan-made translations into Spanish in the early 2000s, but they are not stored anywhere. Maybe, they were on the sites of the translators, sites which are dead now, and there is no way you can get the translations. That's why I publish on Romhacking, which is international and multilingual, but there were a few translations in Spanish. I do this to centralize the downloads.* (Selo, interview, 17/Dec/2016)

There are some active groups of fan translators, but Selo translates on his own because "not everybody is equally committed to the work or its quality" (interview, 17/Dec/2016). Selo could easily upload his translations on *Romhacking.net* and deem his fan task complete. However, he publicizes his translations online among other

fans. He moderates threads in four Spanish-speaking gaming forums. This extends Selo's literacy practices on a sociocultural level beyond gaming and translating (Figure 2).
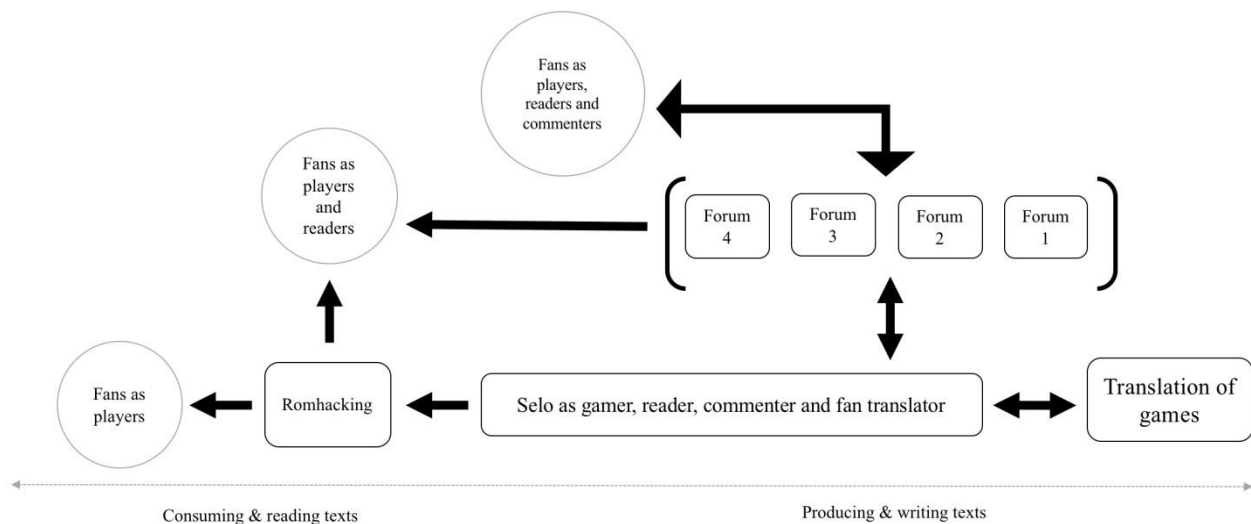

Figure 2. Selo's literacy ecology

Selo as gamer, reader, commenter and fan translator. Selo plays games, reads information about games and comments about games. But most importantly, he assumes the role of fan translator. According to Gee's (2005) understanding of affinity spaces, Selo's translations are the "generator" in this networked fandom, as they fill it with content. Selo's translations as the content of the fandom is later appropriated differently by members of the community. According to Selo, all fans in the fandom play games, but some exhibit an online fan activity geared toward consuming games and reading texts, and others toward producing and writing texts (Selo's translations and fans' online comments):

> *The first translations I made has hundreds of downloads. My sites also have hundreds of visitors each month, but just a few leave a comment, congratulating me on my job, suggesting new games to translate or how to translate. This is why I have the forums that I named "The retro translation of the week." It's fun to see people who like my translations.* (Selo, interview, 17/Dec/ 2016)

In triangulation with our observation of the fandom, we categorize fans in Selo's fandom as *players*, *readers* and *commenters*.

- *Fans as players* are not part of the forums but download and play Selo's translated games from *Romhacking.net*. Selo's most successful translation has been downloaded 1660 downloads (last checked 14/Sept/2017).
- *Fans as readers* play the games and consume the translations, and also leave a comment of gratitude. With their expression of gratitude, they curate Selo's content and reinforce his identity as a fan translator for the Spanish-speaking gaming community. Out of 55 screenshots of Selo's forums, 6 are comments from users who exclusively expressing their gratitude toward Selo and his work. Similar to the like button on Facebook, this influences Selo's identity as a fan translator but falls out of the scope of our study.
- *Fans as commenters* play games and consume Selo's translations, but also comment online about the games and/or the translations. They write reviews about the games and their experience playing them; they request and provide software recommendations to execute, hack and/or translate the games, and they offer their help as potential *graphic editors* and *beta-testers*. As beta-testers, other fans search for possible unintended, graphic alterations in the game and proofread the translated text. After they test the game, they provide critical comments on the translation strategy or particular language chunks. Fans' feedback on Selo's translations and Selo's response construct a dialogue of language learning. Beta-testers resemble "beta-readers" in fanfiction (Black, 2007), where shadow readers comment on a fan-made literary piece prior to publication.

Within Selo's fandom, we scrutinise two issues: (1) Selo's literacies and fan translation process as the main generator, and (2) as a by-product of Selo's translations, the forum comments and how they serve for informal language learning.

Selo's literacies

Selo follows a systematic workflow to translate every game. We are able to inspect this workflow thanks to the screencast videos, showcasing Selo's translating process of a game until it gets published online. We observe 7 stages (Figure 3): (1) decoding the texts, (2) translating the texts, (3) testing the games, (4) creating a patch with the translation, (5) publishing the patch, (6) advertising the translations, and (7) curating and managing the network of fans who use the translations. This expands previously established workflows of hacking and fan translation, where only the more technical literacy skills (decoding, testing, patching) were analysed (Muñoz Sánchez, 2009), without regard to the more sociocultural ones (publishing, advertising, curating)
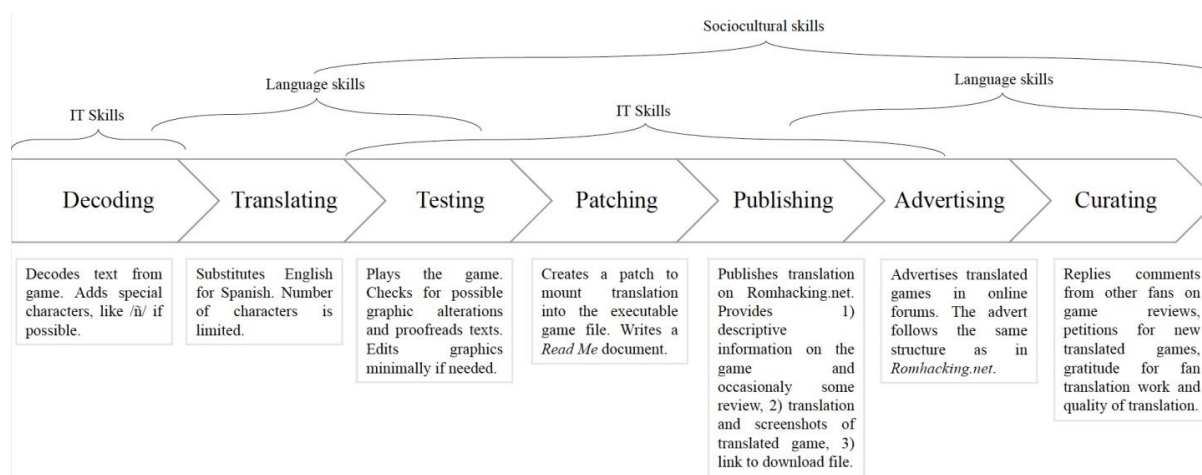
Figure 3. Selo's fan translation workflow.

Selo's workflow underscores the complexity of fan translation as a multi-layered digital literacy practice. Fan translation requires highly sophisticated IT literacy to decode or extract the texts from the game (Stage 1) and manipulate them. Selo is not only competent in writing Spanish and comprehending English (with some difficulties), but also in working with hexadecimal systems of coding used in retro games. Other IT skills Selo exhibits are graphic editing if the translated text alters some graphics in the game, and file conversion, which means creating a patch —a file modifying the game file— so the translation is visible in the game while playing it. Without these IT skills, fan translation is not possible.

Of course, fan translation implies the actual transfer from one language to another (Stage 2). Fan translation of games, as with other types of audiovisual translation, is constrained by the mode of the text: character limit is Selo's biggest challenge. Selo follows 5 steps to translate each sentence:

- He reads each sentence and searches for unknown words or phrases on different resources (Google Translate, WordReference, Wikipedia).
- He provides a tentative first translation in Spanish.
- He tests the game to verify if the sentence fits the screen (using more characters than allowed per sentence deforms the graphics of the game).
- If the sentence does not fit the screen, he rephrases the first translation and provides a shortened version using different linguistic strategies (concision, synonyms, omission).
- He re-tests the game for verification.

In order to translate the phrase "the firepower you'll face to rescue them is awesome" (Figure 4), Selo takes up to 10 minutes. Selo first reads and makes sure he comprehends the original text. He searches for any unknown word or phrase. In this case, he uses Google Translate to search for "firepower." Once he is sure he understands the text, he provides a first tentative translation. He tests the game but the sentence does not fit the screen. He shortens the first translation by choosing a more concise translation of *to face* (in Spanish, *enfrentarse a* (*to face*) vs. *encontrar* (*to find*). He compromises the meaning partially, as *enfrentarse a* (*to face*) and *encontrar* (*to find*) in Spanish are partial synonyms.
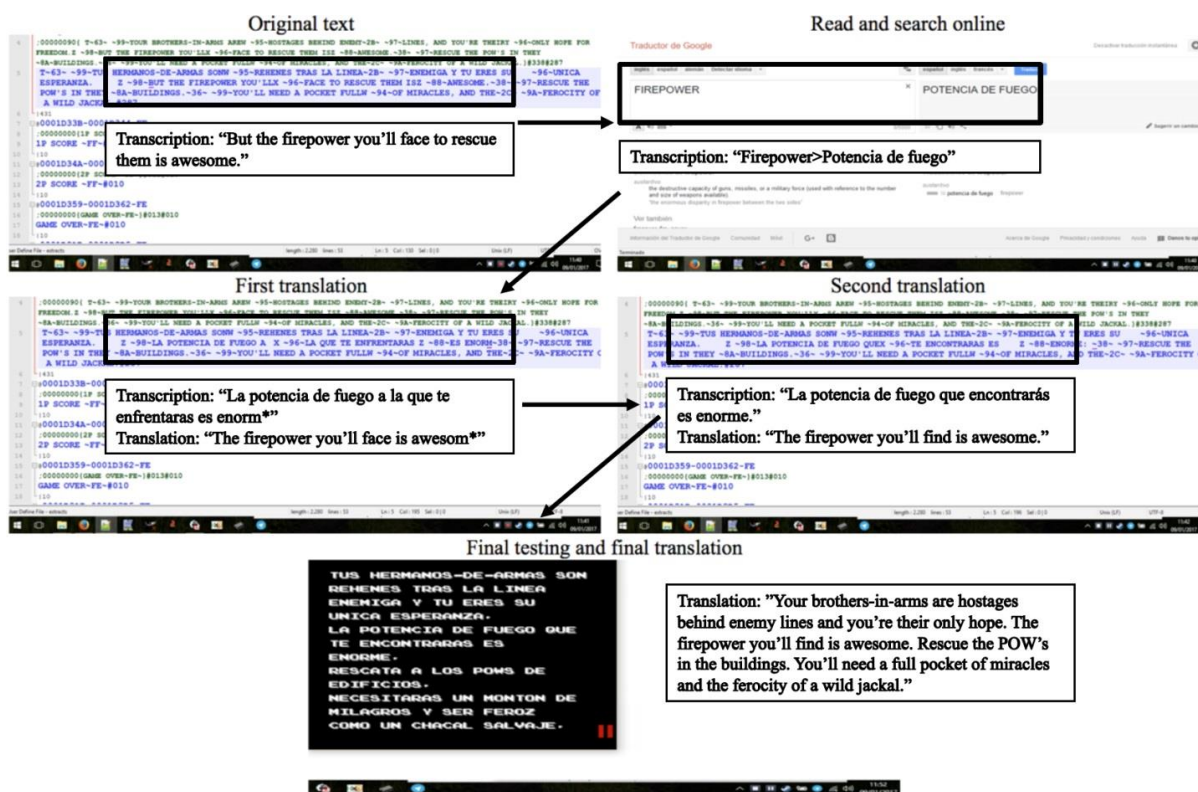
Figure 4. Selo's translating a sentence and reducing the number of characters used

Selo situates translation socioculturally (Figure 3). When translating, although he is quite faithful to the original text because this means less graphic editing, he (1) uses an international version of Spanish, because of his global audience, and (2) changes culturally-bound terms (measurements) without an impact in the story:

> *People from all over the world download my translations, mostly, from Latin America and Spain. I have followers in Argentina, Chile... people who don't know English or simply want to play in Spanish. [...] I try to be quite neutral and use non-specific phrases or words. There're two options: either you can be neutral and never use idioms or specific words [localisms, Castilian Spanish slang] or make two make two versions of the same game, because I know some of the words from Latin America, but not all their talking. Pounds, feet and inches... I also change those.* (Selo, interview, 17/Dec/ 2016)

He also researches the stories and characters of the games, so he can produce pragmatically adequate solutions. Figure 5 is an online interaction from our screenshots. There, a fan highlights *honrada* as a possible translation mistake or some translation needing clarification. Selo justifies the translation of *Righteous* as *Honrada* in Spanish, because he documented himself on Wikipedia about the proper names in the game (also part of a series of manga) and he remarks the coined translations of proper names in the Spanish game and manga series. Selo and fellow fans learn that language transfer is more than code-switching and covers socio-pragmatic and cultural issues.
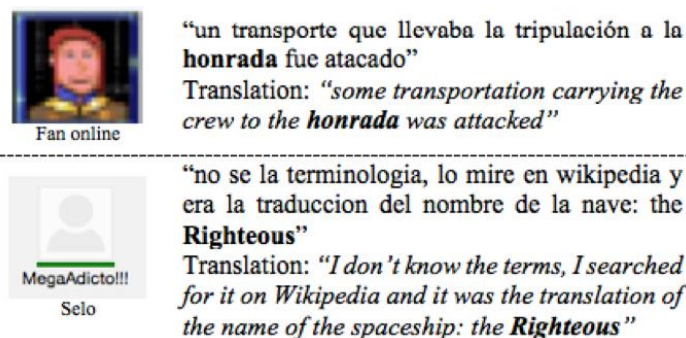

Figure 5. Fan's comment and Selo's reply concerning a proper name in a game

Once translated, Selo tests and creates a patch to execute the game with the translation (Stages 3 and 4). In so doing, he fully revises the language and edits graphics if necessary. The translation is then ready for publication on *Romhacking.net* (Stage 5). However, Selo also understands his translations as sociocultural products construed in dialogue with others. He notes that gamers today are essentially interactive and social:

> *Currently, a gamer FOR ME is somebody who, besides liking A LOT games, plays as much as possible, but also keeps informed, interacts with others through social networks, forums, online games…* (Selo, email, 28/Jun/2017)

He is thus determined to advertise and curate the translations online (Stages 6 and 7) "in order to reach a wider audience," ultimately converting fan translations into products open to public scrutiny and co-construction of meaning. In Selo's words, "managing" translations is harder than translating games (Figure 6).

"vas lanzado ;)"
Translation: *"you translate fast and furious ;)"*

Fan online

"Bueno, me cuesta mas 'gestionarlas' que hacerlas xD"
Translation: *"Well, I find it harder to 'manage them' than to do them xD"*

MegaAdicto!!!
Selo
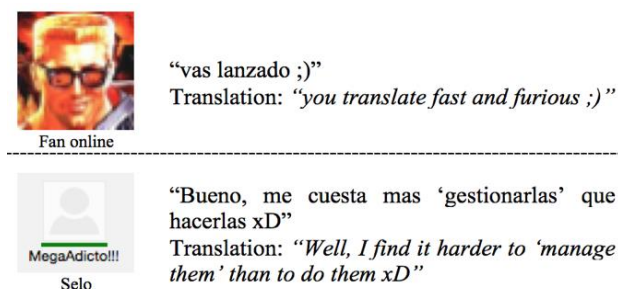
Figure 6. Fan's comment and Selo's reply concerning Selo's work
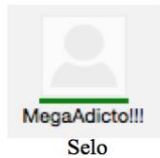
Fans' comments

Thanks to Selo's "management" of translations, other fans review and comment in the forum threads he creates. Selo tags these forum threads as "the retro translation of the week" and uses them to publicize his translations among Spanish-speaking gamers. In the first post, Selo generically asks for "help to improve," not specifying what kind of help. Over time, we observe a dialogic curation of content, covering 4 main themes: (1) functions of translated games, (2) translation and language, (3) socialization, and (4) conflicts:

Table 2. Themes and topics in comments online

Advertising		Selo's presentation of translated games	7
Curating and negotiation of meaning	Functions of translated games	To understand the narrative of games	1
		To increase the number of games in Spanish	1
		To increase the quality of previous translations	1
	Translation and language	Concept of translation	6
		Concepts of reading/writing	4
		Suggestions on language items	12
		Selo's response to criticism	3
	Socialization	Selo's justification of language choices	6
		Praise to Selo's work	6
		Game reviews	3
		Requests for new translations	2
		Personal comments and experiences	1
	Conflicts	Competition in the fandom	1
		Copyright and authorship	1
		Total	55

We observe fans who leave a comment of like or praise of Selo's work ("fans as readers"). Other fans leave a comment with some "help to improve the translations" ("fans as commenters"). For the purposes of this section, we consider those commenters who leave a comment regarding "Translation and language" (31 screenshots out of 55). Fans reply to Selo's translations with theoretical (the concepts of translation, reading and writing) and practical considerations (suggestions for language improvement, prompting Selo's response to criticism and justifications for language choices). Figure 7 exemplifies how these interactions occur in relation to Selo's translation of *Master of Darkness*.

Figure 7. Excerpt of one of Selo's translations and revision made by fan

With much verbal courtesy, the anonymous fan improves Selo's rendering in terms of (1) economy of language (*With the rising sun > Al amanecer* instead of *Al sol naciente*), (2) lexicon choice (*ridge > colina* instead of *cresta*), (3) comprehension-based translation mistakes (*looked at the outside of Castle Dracula > pudo divisar el Castillo de Dracula* instead of *miró fuera del castillo de Drácula*) and (4) syntactical calques (the position of *at last* [*al fin, por fin*] in the Spanish sentence). The proofread version of the fan yields a pragmatically adequate solution (Nord, 2009), closer to the register and tone in *Master of Darkness*, a game of mystery and murder with literary intertextuality (*Dracula*, *Jack the Ripper*).

Additionally, fans advise that Selo should move from a literal translation strategy to a communicative strategy (Figure 8) (Hurtado, 1999). Fans note that a more or less free style is relevant to translate more adequately. This evokes past research on how translation is disregarded in schools across Europe, ignoring the benefits translation has for language learning (Pym, Malmkjaer, & Gutiérrez-Colón Plana, 2013).

Figure 8. Fan's comment concerning Selo's translation strategy

The examples above sustain the idea that language learning happens thanks to the digital literacy practices derived from the passion for games in the fandom. Fan translation is the consequence of some gamers' active involvement in the community. This involvement entails hours of work, harnessing numerous literacy skills and practices systematically (*Selo's literacies*). Such work collects other fans' feedback online (*Fans' comments*), so that thousands of gamers in multiple locations can play a refined product in their local language (*Ecology of Selo's fandom*).

Discussion and conclusion

The findings correspond to the constituent elements in a literacy practice (Barton, 2007) and respond to our research questions and discussion of the findings in relation to the literature.

Participants, roles and relations; spaces and environments; purpose and social context

Similarly as with other fandoms (Valero-Porras & Cassany, 2016), *gamers account for elaborated networked affinity spaces to produce valuable content for the community* (*Research question 1*). They reunite in online affinity spaces and (re)act according to set roles and functions, which may be explicitly or implicitly adopted depending upon members' engagement in the community. Selo adopts the roles of fan translator and moderator in online forums in order to publicize, manage and curate his translations. Other fans stand as readers and consumers downloading Selo's translations and reinforcing his identity as a fan translator with a gratitude comment. Others actively engage in Selo's forums by means of language-related comments. In so doing, they implicitly play the role of *beta-testers* and proof-readers. This underpins the idea that *prosumption* (Beer & Burrows, 2010; Jenkins, Mizujko, & Boyd, 2015) in the age of the participatory culture is the normal transaction of cultural capital, more so in popular culture settings such as gamers' communities. This challenges unidirectional conceptions of authorship (and learning) and emphasizes the role of users, readers and learners as agents in their process of (self-)discovery.

Artefacts and tools; activities; values, beliefs and attitudes; routines, norms and patterns of behaviour

Gamers conduct and deploy highly sophisticated digital literacy practices (*Research question 2*) like fan translation. As seen in our analysis, fan translating comprises IT and linguistic-communicative skills, in an expanded notion of literacy (reading, writing, coding) (Vee, 2013). In fact, fan translators are already literate coders as well as digital readers and writers. They embody the idea that "reading and writing practices of literacy are only one part of what people are going to have to learn in order to be 'literate' [including] the kinds of icons and the signs evident in computer displays" (Robinson-Pant & Street, 2012, p. 75). With highly sophisticated digital literacy practices, gamers confirm that such vernacular practices are not associated with the "uneducated" although they may "not be recognized as valid or valuable by dominant institutions of society" (Barton & Papen, 2010, p. 10). As noted by Selo and proved by his experiences, gamers are not solitary but socially interactive individuals who learn collaboratively. However, canonical portrayals may state otherwise (Milner, 2013).

Conversely, we argue that these literacy practices are so valuable that *Selo, as a gamer and fan translator, acquires a great deal of language knowledge a great deal of language knowledge* (*Research question 3*). This language knowledge stems from the two main phases of his activity: *translating* and *curating* (Figure 3). Firstly, while he is translating on his own he searches for language information and doubts online (sources of language information, e.g., use of Google Translate for terminological doubts; Figure 4) and cares that the textualization of the translated text fits the screen of the game (linguistic strategies, e.g., synonyms, concision; Figure 4). Secondly, Selo receives corrective feedback from fans and remakes the linguistic rendering in the translations. We presume that fans giving feedback also learn implicitly by signalling and reflecting on Selo's mistakes and translation problems, but we cannot be sure (see Limitations and future research). There is dialogue, negotiation of meaning and language socialization around games. This matches similar considerations in studies on games with some embedded component of social interaction (Liang, 2012; Thorne, 2008; Zheng, Wagner, Young, & Brewer, 2009). The differentiating aspect here is that such social interaction is not given to gamers. An interesting finding is that gamers create their own semiotic social space (Gee, 2005) for language learning opportunities out of "personal interest." Previous studies on games as a motivational hook in technology teaching claim that "personal interest," associated with personal likes and inner motivation, is the ideal kind of interest to engage learners in learning (Ting, 2010).

By translating games for fun, Selo —and presumably to a lesser extent, other fans— develop foreign and native languages at the levels of linguistic form, semantic meaning and pragmatic use, which are crucial for any language play to convey meaningful language learning (Cook, 2000). We have selected a variety of interactions that depict how literacy and language practices intersect and develop online driven by the fan translation of games. But most fans' comments refer to typography, spelling, and grammatical correctness; some comments refer to lexical-syntactical issues, and less frequently, some comments refer to socio-pragmatic and sociocultural issues. An influencing factor here might be the cultural norms attached to the affinity spaces of gaming online in

relation to *net-etiquette* and proper behaviour before voluntary, self-regulated fan practices and activities (as shown in Figure 9).

> Act friendly, maturely, and respectfully to all your fellow community members.
> Please don't ask when a project is done. It is done when they release it.
> Make a best effort at spelling, proper grammar, and punctuation.

Figure 9. Excerpt with norms and rules from *Romhacking.net*

This may have a double reading. On the one hand, we see that Selo and fans conform to the requirements of the discursive genre (online forum) and social context (fandom) and activity (fan translation) of their affinity space (gaming). This shows a high level of sociocultural awareness in technology-mediated discussions on the part of gamers as language users and learners. This connects well with Figures 7 and 8, where fans address Selo with verbal courtesy and hedging strategies. This aligns with the idea that language learning surpasses code-switching and is embedded in discourse and literacy (Abraham & Williams, 2009). On the other hand, by conforming to the social and cultural norms of the online sites, fans may find it difficult to criticize more openly Selo's translating strategy or language issues beyond typography, spelling and grammar. This may compromise more meaningful language learning interactions and reduce the amount of language learning events. Further studies may want to validate or refute this assumption in similar contexts.

Limitations and future research

Our study encounters limitations pointing at future research. We cannot extrapolate our findings to every gamer, fan or fan community. Exploratory and not intended for generalization, our study showcases Selo and fellow fans, with active online profiles. Not every fan or gamer has this level of implication. We cannot exactly determine who learns what, but that there exits learning about language and other topics. This is particularly true in relation to the gamers and readers who remain spectators, observing and consuming what Selo and other fans produce and write. Connected with *legitimate peripheral participation* (Lave & Wenger, 1991), this *silent learning* occurring "by being around individuals engaged in a certain task or activity" (Romero, 2004, p. 2018) needs further study. Correlating our results with other communities, languages or quantitative computer-based methods like learning analytics, may help construct a solid, multi-faceted discourse on whether all fans learn, to what extent they learn what they learn, and how fan practices can be integrated into schools for pedagogical purposes, including language education.

Methodologically, our data collection was adapted to Selo's requirements. Despite the fact that data on the Internet is mostly public and easily accessible, Selo knows about the research and consents to participate under certain conditions. He did not want to "feel" that he was observed or followed (as with periodical interviews). This is why a closer exploration through narrative inquiry was not possible. This highlights the need of detailed guidelines for Internet-based research. An interesting topic Selo raises is the "expectation of privacy." Not everything on the Internet is ethically researchable without consent: "Individual and cultural definitions and expectations of privacy are ambiguous, contested, and changing. People may operate in public spaces but maintain strong perceptions or expectations of privacy" (Markham & Buchanan, 2012, p. 6).

Ethically, since fan activities modify copyright content, fans cross fuzzy frontiers of legality. However, Selo and his fellow fans observe that they do not modify or translate copyright material that is still being commercialized. The likelihood of retro games to be re-commercialized in languages other than English or Japanese is minimum. Besides, recent studies evidence that there is a "positive effect of illegal downloads and streams on the sales of games because players get hooked and pay to play the game with extra bonuses or at extra levels" (Ende et al., 2015, p. 149) or revitalize older games and consoles. The concepts of copyright and authorship in the fan universe are also to be explored.

Acknowledgements

References

Abraham, L. B., & Williams, L. (Eds.). (2009). *Electronic discourse in language learning and language teaching* (Vol. 25). Amsterdam, The Netherlands: John Benjamins Publishing Company. doi:10.1075/lllt.25

Barton, D. (2007). *Literacy. An Introduction to the ecology of written language* (2nd ed.). Oxford, UK: Blackwell Publishing.

Barton, D., & Lee, C. (2013). *Language online: Investigating digital texts and practices.* New York, NY: Routledge.

Barton, D., & Papen, U. (2010). *The Anthropology of writing: Understanding textually mediated worlds*. New York, NY: Continuum.

Beer, D., & Burrows, R. (2010). Consumption, prosumption and participatory web cultures. *Journal of Consumer Culture, 10*(1), 3–12. doi:10.1177/1469540509354009

Behrenwald, S. J. (2012). Fan fiction practices in ESL writing classrooms. In G. Kessler, A. Ozkoz, & I. Elola (Eds.), *Technology use across writing contexts* (pp. 277–296). San Marcos, TX: CALICO.

Black, R. W. (2007). Fanfiction writing and the construction of space. E-*Learning and Digital Media, 4*(4), 384–397. doi:10.2304/elea.2007.4.4.384

Chen, C. H., & Hwang, G. J. (2017). Effects of the team competition-based ubiquitous gaming approach on students' interactive patterns, collective efficacy and awareness of collaboration and communication. *Educational Technology and Society, 20*(1), 87–98.

Cook, G. (2000). *Language play, language learning.* Hong Kong: Oxford University Press.

Davidson, D. (Ed.). (2011). *Well played.* Pittsburgh, PA: Entertainment Technolgy Press.

Ende, M. van der, Poort, J., Haffner, R., Bas, P. de, Yagafarova, A., Rohlfs, S., & Til, H. van. (2015). *Estimating displacement rates of copyrighted content in the EU*. Brussels. Retrieved from https://cdn.netzpolitik.org/wp-upload/2017/09/displacement_study.pdf

Gee, J. P. (2000). Identity as an analytic lens for research in education. *Review of Research in Education, 25*(1), 99–125. doi:10.3102/0091732X025001099

Gee, J. P. (2005). Semiotic social spaces and affinity spaces: From the age of mythology to today's schools. In D. Barton & K. Tusting (Eds.), *Beyond Communities of Practice* (pp. 214–232). Cambridge, UK: Cambridge University Press.

Gee, J. P. (2007). *What video games have to teach us about learning and literacy* (2nd ed.). New York, NY: Palgrave MacMillan.

Gillen, J. (2014). *Digital literacies*. New York, NY: Routledge.

Green, C., & Bavelier, D. (2003). Action videogame modifies visual attention. *Nature, 423*, 534–537.

Gutiérrez-Martín, A., & Torrego-González, A. (2017). The Twitter games: media education, popular culture and multiscreen viewing in virtual concourses. *Information Communication and Society, 21*(3), 434-447. doi:10.1080/1369118X.2017.1284881

Hayes, E. R. (2008). Game content creation & IT proficiency. *Educational Technology, 51*(1), 97–108.

Hine, C. (2015). *Ethnography for the Internet. Embedded, embodied and everyday* (Vol. 1). London, UK: Bloomsbury.

Hurtado, A. (1999). *Enseñar a traducer* [Teach to translate]. Madrid, Spain: Edelsa.

Jenkins, H., Mizujko, I., & Boyd, D. (2015). *Participatory culture in a networked era: A Conversation on youth, learning, commerce, and politics.* Cambridge, UK: John Wiley & Sons.

Kim, B., Park, H., & Baek, Y. (2009). Not just fun, but serious strategies: Using meta-cognitive strategies in game-based learning. *Computers & Education, 52*(4), 800–810. doi:10.1016/j.compedu.2008.12.004

Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of L2 development*. Oxford, UK: Oxford University Press.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.

Liang, M. Y. (2012). Foreign ludicity in online role-playing games. *Computer Assisted Language Learning, 25*(5), 455–473. doi:10.1080/09588221.2011.619988

Markham, A., & Buchanan, E. (2012). *Ethical decision-making and Internet research: recommendations from the AoIR ethics working committee (version 2.0)*. Retrieved from http://aoir.org/reports/ethics2.pdf

Milner, M. (2013). *Freaks, geeks, and cool kids*. New York, NY: Routledge.

Muñoz Sánchez, P. (2009). Video game localisation for fans by fans: The Case of Romhacking. *The Journal of Internationalisation and Localisation, I*, 168–185. doi:10.1075/jial.1.07mun

Nord, C. (2009). El funcionalismo en la enseñanza de traducción [Functionalism in the teaching of translation]. *Mutatis Mutandis: Revista Latinoamericana de Traducción, 2*, 209–243. Retrieved from http://aprendeenlinea.udea.edu.co/revistas/index.php/mutatismutandis/article/view/2397/2080

O'Hagan, M. (2009). Evolution of user-generated translation: Fansubs, translation hacking and crowdsourcing. *The Journal of Internationalization and Localization, 1*, 94–121. doi:10.1075/jial.1.04hag

Peterson, M. (2013). *Computer games and language learning*. New York, NY: Palgrave Macmillan US. doi:10.1057/9781137005175

Pym, A., Malmkjaer, K., & Gutiérrez-Colón Plana, M. D. M. (2013). *Translation and language learning: The Role of translation in the teaching of languages in the European Union: A study*. Luxembourg: Publication Office of the European Union. doi:10.2782/13783

Robinson-Pant, A., & Street, B. (2012). Students' and tutors' understanding of "new" academic literacy practices. In M. Castelló & C. Donahue (Eds.), *University Writing: Selves and Texts in Academic Societies* (pp. 71–92). London, UK: Emerald Group Publishing.

Romero, M. E. (2004). Cultural literacy in the world of Pueblo children. In E. Gregory, S. Long, & D. Volk (Eds.), *Many Pathways to Literacy: Young Children Learning with Siblings, Grandparents, Peers, and Communities* (pp. 208–220). New York, NY: Routledge Falmer.

Saldaña, J. (2015). *The Coding manual for qualitative researchers*. London, UK: Sage Publications.

Sauro, S. (2014). Lessons from the fandom: Task models for technology-enhanced language learning. In M. González-Lloret & L. Ortega (Eds.), *Technology-mediated TBLT: Researching technology and* tasks (pp. 239–262). Amsterdam, The Netherlands: John Benjamins.

Sauro, S. (2017). Online Fan Practices and CALL. *CALICO Journal, 34*(2), 131–146. doi:10.1558/cj.33077

Shute, V. J., & Becker, B. J. (2010). *Innovative assessment for the 21st century*. New York, NY: Springer.

Simkins, D., & Steinkuehler, C. (2008). Critical ethical reasoning & role-play. *Games & Culture, 2*(3–4), 333–355.

Squire, K. (2005). Educating the fighter. *On the Horizon, 13*(2), 75–88.

Steinkeuhler, C. (2007). Massively multiplayer online gaming as a constellation of literacy practices. *eLearning, 4*(3), 297–318.

Steinkuehler, C., & Duncan, S. (2008). Scientific habits of mind in virtual worlds. *Journal of Science Education and Technology, 17*(6), 530–543. doi:10.1007/s10956-008-9120-8

Thorne, S. L. (2008). Transcultural communication in open internet environments and massively multiplayer online games. In S. S. Magnan (Ed.), *Mediating Discourse Online* (pp. 305–327). Amsterdam, The Netherlands: John Benjamins.

Ting, Y. L. (2010). Using mainstream game to teach technology through an interest framework. *Educational Technology and Society, 13*(2), 141–152.

Valero-Porras, M. J., & Cassany, D. (2016). "Traducción por fans para fans": Organización y prácticas en una comunidad hispana de scanlation ["Translation by fans for fans": Organization and practices in a Spanish community of scanlation]. *BiD, 37*(Diciembre), 1–12.

Vee, A. (2013). Understanding computer programming as a literacy. *Literacy in Composition Studies, 1*(2), 42–64. doi:10.21623/1.1.2.4

Wouters, P., van Nimwegen, C., van Oostendorp, H., & van der Spek, E. D. (2013). A Meta-analysis of the cognitive and motivational effects of serious games. *Journal of Educational Psychology, 105*(2), 249–265. doi:10.1037/a0031311

Young, M. F., Slota, S., Cutter, A. B., Jalette, G., Mullin, G., Lai, B., Zeus, S., Tran, M., Yukhymenko, M. (2012). Our princess is in another castle: A Review of trends in serious gaming for education. *Review of Educational Research, 82*(1), 61–89.

Zheng, D., Wagner, M. M., Young, M. F., & Brewer, R. A. (2009). Negotiation for action: English Language learning in game-based virtual worlds. *The Modern Language Journal, 93*(4), 489-511. doi:10.1111/j.1540-4781.2009.00927.x