Bilingual subtitling in streaming media
Pedagogical implications

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This article explores bilingual subtitling, a relatively under-researched mode of audiovisual translation, and its role in the ever-evolving landscape of global media streaming. Originally used for cinema productions in officially bilingual countries and international film festivals, bilingual subtitling has now resurfaced as a response to the growing affordances of streaming media. This article investigates the proliferation of bilingual subtitling tools and practices in different contexts, from PC-based tools and Chrome extensions that add bilingual subtitle features to streaming platforms (Netflix, YouTube) to amateur (optionally bilingual) subtitling streaming services (Viki Rakuten), video sharing websites (Bilibili), and online channels with open bilingual subtitles embedded in their videos (Easy Languages). Bilingual subtitling is further promoted as a pedagogical tool for foreign-language learning that matches the expectations of contemporary learners, especially ‘digital natives’ who have grown up with new online modalities. The conventional ways in which audiences used to engage with audiovisual content have, arguably, been superseded as streaming platforms that offer an abundance of options in terms of language and content are gradually reshaping viewing patterns. Shifting away from long-established patterns of passive TV consumption, this article also sets out to present online collaborations and initiatives that seek to incorporate bilingual subtitles in language learning while promoting the active participation of the audience within the emerging media streaming landscape.

Keywords: bilingual subtitling, streaming, language learning

1. Introduction

In recent decades, the field of audiovisual translation has seen a series of changes that have had a profound and multifaceted impact on audiovisual industry practice – from new devices and mediums to novelties in the patterns of production
and consumption. The rapid technological development and worldwide expansion of audiovisual translation is now seen as an “inevitable concomitant” (Bogucki 2020, 1) to any discussion on audiovisual translation research and practice. Viewers can now engage with audiovisual content from different locations and on various devices – from the screens of their mobile phones to immersive 360° projections. The major shift from a once TV-dominated world to electronic communications has completely transformed audiences’ interactions with media today as we have entered, according to Jenkins (2006, 24), an era of prolonged transition and transformation in the way media operates at the intersection between old and new media.

Subtitling has become an integral part of video streaming, as it helps broadcasters reach larger audiences and expand their international customer base. Apart from the use of interlingual subtitles that grant access to viewers who do not speak the language of the media content, the option of adding intralingual subtitles has contributed to the emergence of a new accessibility mediascape, one that is aided by the latest advances in inclusive accessibility services (subtitles for the deaf or hard-of-hearing [SDH], respeaking, audio description), and thus keeps growing exponentially. Within a new sociopolitical framework, where emphasis is placed on providing people with disabilities with access to audiovisual content and communication, accessibility services are being facilitated worldwide by new legislation and new sets of guidelines that aim to increase these services in terms of quantity as well as quality standards (Romero-Fresco 2019, 498). At the same time, due to their globalized and digitalized presence, streaming platforms are marked by a need to offer several options that customize and tailor viewing according to user preferences. Streaming platforms are, as a result, constantly setting new audiovisual consumption trends, informed both by audience choices and new globalization. A good example is Netflix’s Queer Eye SDH that have been criticized online for missing dialogue and toning down profanity. The streaming provider reacted promptly via Twitter, stating that it was taking action to fix these issues (Netflix CS 2018).

With the rise of digitalized content that aims to reach a global rather than a local audience, another groundbreaking change is the proliferation of available language combinations of dubbed and subtitled versions. Online streaming platforms have sought to achieve a transnational appeal and meet viewer demands, allowing viewers to choose between different subtitled versions, rendered either in the foreign or the domestic language in the form of SDH. For instance, Netflix has recently announced its plan to expand its list of SDH (as well as audio description services) in more than ten additional languages, enriching the range of choices available for viewers (Dowdy 2022). In cases where dubbing is the mode of preference for a specific program, viewers are also offered the choice to switch
between a wide variety of different language audio streams. As a result, people who can speak foreign languages find themselves cherishing the abundance of language choices available to them.

This article seeks to explore one of these available modalities, the relatively under-researched mode of bilingual subtitling, and its role in the ever-evolving landscape of global media streaming. This type of subtitling uses two languages, often the language of the media content and a translation into another language. My goal in this article is to give an overview of this modality, exploring its common features and the ways in which it can be used for language learning. I first present the limited but still indicative definitions of this subtitling mode within Audiovisual Translation Studies in Section 2. Thereafter, I map its contemporary status within the digitized environment of streaming in different contexts in Section 3, from PC-based tools to amateur (optionally bilingual) subtitling streaming services (Viki Rakuten), video sharing websites (Bilibili), and online channels with open bilingual subtitles embedded in their videos (Easy Languages). I also explore educational platforms where emphasis is predominantly placed on the pedagogical implications of this mode. In Section 4, I examine specific examples of bilingual subtitling practice to find out whether there are any deviations from conventional subtitling norms in terms of subtitle appearance (use of color, positioning, error correction, and so on) and viewers’ reception (interactivity, self-customization). Special emphasis is placed on the different ways to promote the active participation of the audience in their contact with bilingual subtitling.

2. Bilingual subtitling

Bilingual subtitling refers to a subtitling process where two sets of subtitles in two different languages co-exist, constantly occupying the two bars available for subtitles at the bottom of the screen (Díaz Cintas and Remael 2021, 19). Due to the presence of two languages on screen, bilingual subtitling can also be conducive to language learning (as I discuss in Section 2.2), within the framework of which it may also be defined as captioning, where a pair of subtitles (one in the learners’ mother tongue, L1, and the other in a second language, L2) is shown at the same time on the screen (García 2017, 468). Although the term is mostly used (both by scholars and practitioners) to denote a language combination that includes the written transcription of the original audio track (intralingual subtitles), bilingual subtitles may occasionally include a pair of two interlingual subtitles in different languages, neither of which is in the program’s audio language. For example, in certain regions of Finland, English-language shows are broadcast with
both Swedish and Finnish subtitles. In most cases, viewers are given the option to choose among the language versions available and make their personal selections accordingly. Apart from the different configurations in the subtitling language options, a further distinction can be made according to the language of the original audio. García (2017, 471) uses the term “intra-bilingual” when the audio of the content is in the L1 and the subtitles in the L1 and L2, whereas Kim (2019, 5) labels this “bilingual reversed subtitling.” Similarly, the term “inter-bilingual” is proposed by García (ibid.) when the L2 is the language heard in the oral dialogue and the subtitles remain in both the L1 and L2. The interplay between language sets can be regarded as an additional part of the new media textualities, and Dios and Guinovart (2012, 256) note that this joint use of different subtitles establishes a parallel relation between them, calling it “a peculiar kind of ‘cotranslation’ inasmuch as they both are ‘sub-products’ of the same original text.” In other words, both sets of subtitles are translations, and through their copresence on screen, their meanings interact and further the interpretation of the text.

2.1 Mapping different practices through time

Originally used for cinema productions as a means of rendering a foreign language in two domestic languages (Gottlieb 2004), bilingual subtitles are not a form of intralingual subtitling, but, rather, have long been considered a variant of interlingual subtitling. They have been distributed in geographical areas where two or more languages are spoken, as in the cases of Finland (Finnish and Swedish), Belgium (Flemish and French), Israel (Hebrew and Arabic), Luxembourg (French and Dutch or German), and Switzerland (French and German) (Media Consulting Group 2011, 7).

The adoption of bilingual subtitles has also been dictated by financial incentives, as in the case of Hong Kong, where, unlike in other Chinese-language cinemas, this practice has long been the norm, since films had to appeal to a local English-speaking audience (Hu 2014, 139). In addition, the decision to include bilingual subtitles has occasionally been determined by the medium. Within interlingual subtitling, bilingual subtitling, as practiced, for instance, in Finland and Israel, is usually offered when audiovisual content is screened in movie theatres, but not on television (Gambier 2013, 51). This could be explained by the fact that space limitations are less of a constraint in cinemas, given how, in some countries, subtitle bars in the cinema tend to be longer than on TV. In Greece, for example, subtitling guidelines for cinema screenings set a maximum number of forty-two to forty-three characters per line, whereas in the case of media content broadcast on many Greek TV stations, subtitlers must respect a maximum number of between thirty-six and thirty-eight characters per line. Díaz Cintas and Remael
(2021, 19) note that in the case of bilingual subtitles, two-liners are used more frequently, with one line dedicated per language to avoid excessive pollution of the image. However, subtitles of four lines may also sometimes occur, thus covering a larger part of the screen.

International film festivals are another example where organizers have resorted to bilingual subtitles, usually choosing the language of the host country for one of the two sets of subtitles to enable local audiences to watch the films translated into the local language. Similar to global streaming platforms, international festivals outside of English-speaking countries address a much wider multilingual viewership (in this case including festival guest attendees and foreigners who reside in the local area but are not able to speak the host country’s language) in an effort to increase their popularity and marketability. Members of this broadened audience base can often also make use of the English subtitles screened simultaneously with the interlingual subtitles in the local language. In this sense, bilingual subtitles can include intralingual subtitles when the language of the source media text is English (or, indeed, in any case when one set of subtitles is in the same language as the audio). The presence of captions on TV, at cinemas, and online has increased pressure to offer this service in theatres as well (Secără 2019, 131). Rapid transformations have also taken place in the way subtitles are being delivered for theater festivals and operas worldwide, where the coexistence of the written dialogue into two linguistic systems seems to be gaining ground as well. One example of this practice is the Athens Epidaurus Festival program for 2022, according to which “Greek and English Surtitles will be displayed in all international theatre productions” (Athens Epidaurus Festival 2023).

Having been established in the contexts of international film and theater festivals and officially bilingual/multilingual countries, bilingual subtitling is now rapidly catching on in the global streaming media arena. The advent of the ‘streaming era’ has brought a profound shift from cinema to online platforms, where bilingual subtitling is becoming increasingly popular. The conventional ways in which audiences used to engage with audiovisual content have, arguably, been superseded as streaming platforms that offer an abundance of options in terms of language and content are gradually reshaping viewing patterns. The growing popularity of subtitled films, especially among younger audiences, has been the topic of extensive discussion in several online articles (Guy 2022; Sims 2022) and surveys (Ofcom 2021). The emergence of novel multimedia technology and services has reformulated the viewing experience and subsequently helped redefine screen-based entertainment. What is more, by inserting a textual element in the multimodality of the audiovisual, subtitles constitute a “new graphic register” (Dwyer 2017, 8). Bilingual subtitles, which provide written content in two languages superimposed onto the image track, add an extra element onto this
register, tripling the verbal channels of information and thus forming a unique type of multisemiotic construct. As already noted, the use of bilingual subtitles is increasing and their popularity is well established among online communities worldwide. In China, for instance, Díaz Cintas and Remael (2021, 19) report that “Chinese-produced films that are shown on VOD [video-on-demand] platforms and in cinema are often bilingually subtitled with both English and Chinese in the hope to boost their international circulation.” Apart from the obvious gains in terms of the marketability of bilingually subtitled videos, this kind of subtitling may also serve as a pedagogical tool for foreign-language learning.

### 2.2 Pedagogical implications

Bilingual subtitling has been promoted as a pedagogical tool that matches the expectations of contemporary learners, especially the new generation of “digital natives” (Ayten, Bulat, and İnceidmail 2019, 1) – people who have grown up with the internet and who use their familiarity with digital spaces to acquire new knowledge and skills within the context of edutainment and e-learning.

The concurrent provision of both intra- and interlingual subtitles on screen, combined with the oral information conveyed via the acoustic channel, can create a learning environment that benefits viewers’ language learning. The polysemiotic nature of subtitled audiovisual content establishes conditions that promote foreign-language learning (Lertola 2018, 197). The exposure to subtitled audiovisual material, alongside the original multimodal audio, visual, and textual information, provides a rich language environment that can help viewers acquire language skills “incidentally through context” (Neuman and Koskinen 1992, 104), including new vocabulary (Bird and Williams 2002; Wang 2014; Lertola 2019), while increasing their motivation to watch this type of content as part of the language learning process, since the least able learners are aided in receiving the linguistic means to better understand and respond to foreign language discourse (Vanderplank 2016, 23). Subtitles may also contribute to language awareness and memory improvement and assist learners with language disabilities (García 2017, 470). The non-exhaustive list of educational benefits linked to subtitling has led to its integration in foreign-language-learning curricula, including those focusing on content and language integrated learning methodologies, where language literacy is acquired via viewing multithematic content videos. Subtitled videos with similarly specialized and thematically related content can be used as a valuable teaching aid.

Bilingual subtitling could be conducive to foreign-language learning due to several characteristics that comply with well-established beneficial learning parameters. As noted by Fernández-Costales (2017, 14), by incorporating subtitling
in content and language integrated learning, code-switching is encouraged, and the presence of two distinct languages on screen may further enhance translanguaging (i.e., the purposeful alternation of the L1 and L2), although this has not, as yet, been thoroughly researched. When bilingual subtitles are conveyed simultaneously with an acoustic stream in the source language, linguistic and intercultural awareness can be promoted. Bilingual subtitles may “contribute to vocabulary production significantly better than intralingual and/or interlingual subtitles” (García 2017, 469), since viewers have the opportunity to explore and observe the form of words, grammatical structure, and sentence construction in both the L1 and L2, comparing and contrasting as necessary.

The educational potential of bilingual subtitles has already caught the attention of researchers. Findings of previous studies suggest that the presence of bilingual subtitles does not induce higher extraneous cognitive load (Hao et al. 2021; Liao, Kruger, and Doherty 2020); instead, it has been proven to deliver more learning gains than monolingual subtitles, especially in terms of vocabulary acquisition. In one of the first studies conducted on the pedagogical implications of bilingual subtitling, Chang (2006) notes that bilingual subtitling, by providing more informative contextual support, was particularly beneficial for students when compared to other subtitling conditions (intralingual subtitling with English dialogue and English subtitles, and interlingual subtitling with English dialogue and Chinese subtitles). He further argues that the two different subtitles complemented each other and increased levels of comprehensibility (221). Other research evidence shows that students expressed confidence in their ability to learn new English vocabulary through dual subtitles after their exposure to bilingually subtitled videos (Raine 2013, 48; Xu 2022, 1030). Subsequent studies juxtaposed different subtitling conditions (interlingual, intralingual, bilingual, no subtitling), and bilingual subtitles were found to be at least as effective for vocabulary acquisition as either subtitles or captions alone (Kovacs and Miller 2014, 855). Lwo and Chia-Tzu Lin (2012, 204), however, report no significant difference across the four different caption types used, including bilingual subtitles, stating specifically that “the concurrent presence of both Chinese and English captions had no effect on students’ vocabulary learning.”

Since the late 2010s, reception studies using experimental research methods such as eye tracking have empirically tested whether bilingual subtitles impede the learning process due to the extra cognitive load imposed compared to monolingual subtitles (Gouleti, Dimitriadis, and Kokonis 2020; Li 2016; Liao, Kruger, and Doherty 2020; Wang and Pellicer-Sánchez 2022). These investigations have sought to analyze bilingual subtitling’s levels of redundancy, the patterns of visual attention distribution and cognitive load, as well as users’ general comprehension of the content screened. The consensus among these scholars appears to be that
the foreign language gains provided by watching bilingually subtitled material exceed those offered by monolingual or no subtitling conditions.

3. **Bilingual subtitling tools**

3.1 **Online and PC-based platforms**

In this section, I discuss the online tools that use and create bilingual subtitles. A significant change from the top–down form of broadcast and film festival bilingual subtitles has shifted the core of this practice to a more user-centered experience. There has been a rapid spread of bilingual subtitling tools that were originally embedded in video players to enable the simultaneous activation of two (or occasionally more) subtitle tracks. In practice, these have been developed to merge the subtitles from different language .srt files into a single file.

Viewers can make use of this feature to watch audiovisual content with bilingual (or multilingual) subtitles. The material used consists of ready-made subtitles in different languages or transcripts of dialogues found online (retrieved from massive online subtitle libraries, mainly fansub webpages or specific-content catalogues, as in the case of TED talks). These user-created open-source tools capitalize on participatory culture practices (e.g., amateur subtitling). Fan audiovisual translation, which is defined by O’Hagan (2015, 97) as “a wide range of translation, carried out based on free user participation in digital media spaces where translation is undertaken by unspecified self-selected individuals,” has gained prominence partly due to the exponential reach of new technological affordances such as networking technologies and file sharing protocols (Dwyer 2019, 436). Fansubs exchanged online are created by online prosumers and are retrievable from sites that distribute this type of user-generated translation. When users are unable to find the language tracks of their choice to use as one of the two input subtitle files, the program allows them to manually upload a subtitling file from their personal files. LingoPlayer¹ and Fleex Player² are two of the first PC-downloadable programs to include this practice and have paved the way for the creation of more programs that offer extra attributes. Contrary to the standardization and harmonization norms dictated by the industry, several of these programs allow viewers to fully customize the bilingual subtitles in terms of font, size, and appearance (such as Kapwing) or color and positioning (such as DualSub; see Figure 1).³

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3.2 Chrome app extensions

Users can also download the latest releases of these players’ online versions that run as app extensions on Google’s internet browser, Chrome. In these cases, subtitles are automatically retrieved from video-on-demand platform databases. The material is predominantly drawn from platforms focusing on entertainment content, such as Netflix, Amazon Prime, Disney Plus, Hulu, Arte, or HBO Max, but one can also make use of online learning platforms like Udemy or Coursera. A learning environment is set up in which the original dialogue appears transcribed and translated as it is delivered orally. Users can thus opt for their preferred set of bilingual subtitles, choosing among the available intralingual and interlingual subtitles found in the language options. The inclusion of this option has become popular and is continuously enriched with new extensions, such as NflxMulti-Subs and Language Reactor (an application formerly known as two separate toolboxes – Language Learning with Netflix and the Beta version of Language Learning with YouTube) that enable the simultaneous provision of subtitles in two languages, while the audiovisual content is streamed online.

The tools’ interfaces allow users to make modifications to suit their preferences for positioning, layout, or background shading, which is in line with the general tendency towards self-customization and which characterizes many online (audiovisual content) consumption experiences. Such techniques can be used for personalized hypermedia applications, both within and outside the World Wide Web, which adopts teaching mechanisms in digital platforms tailored to learners’ needs, like adaptive educational systems (Kobsa, Koenemann, and

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4. An indicative list of websites which are currently supported by DualSub can be retrieved from the DualSub webpage: https://bit.ly/3Q16AU4.
Pohl 2001). The polysemiotic nature of the audiovisual content, combined with a list of interactive features (e.g., greying-out of selected words and phrases within the subtitles, adjustable playback speed, video auto-pause, pop-up dictionaries, personalized phrase books, and pressing arrow keys to navigate subtitles) may also be extremely appealing to technology-savvy netizen-learners, considering their familiarity with other forms of interactive technology, like social media or gaming.

To explain the bilingual subtitles’ widespread dissemination in the ‘streaming era’, one could point to the fact that they combine the gains of both same- and foreign-language subtitles. Intralingual subtitles “display the written version of the spoken word, boosting literacy skills and enhancing the acquisition of new vocabulary [whereas interlingual subtitles provide] the translation of the spoken dialogue and contribute to the overall comprehension of the video” (García 2017, 470). Online tools that foster dual subtitles focus predominantly on their educational attributes, overtly promoting their integration in the process of foreign-language learning. Acting as “web-based viewing tools, these platforms aim to maximize vocabulary learning while ensuring that the learner fully understands the video and enjoys watching it” (Kovacs and Miller 2014, 1). While there is little evidence from reception research to support these points, the educational potential of bilingual subtitles is clear.

Language Learning with Netflix was officially launched in December 2019 and was reintroduced in September 2021 as Language Reactor. It was initially designed along the lines of the learning application Lingo Player and was created by the same developers. Lingo Player was subsequently redesigned to be compatible with subtitle material from the Netflix catalogue in the form of a Chrome-extension app. According to numbers stated on their Chrome webstore page, Language Reactor seems to be steadily gaining traction on a global scale: as of March 2023, over a million users have downloaded it, pointing to an increasing interest among audiences in experimenting with this novel practice. The growing tendency to self-customize the viewing experience is further facilitated with this software, as users are offered an array of options between automatically generated subtitles and, if they have a Netflix subscription, the platform’s official interlingual subtitles. The application’s functionality expands to allow users to further customize their learning experience via bilingual subtitles by choosing the language level they prefer. Words that correspond to the selected language level are highlighted and dictionary definitions pop up when users hover over these words, as shown in Figure 2, displayed on their Chrome app website.

In the application’s premium version, specific words can also be highlighted and stay marked-up whenever they re-appear in subsequent subtitles. This option can potentially facilitate vocabulary item memorization and trigger language acquisition mechanisms.

As mentioned before, Language Learning with YouTube, a sister extension to Language Learning Netflix, merged with Language Learning Netflix in September 2021 to form the Language Reactor browser extension, where users can choose to watch streamed content from both the YouTube and Netflix catalogues using the same interface. Extra educational tools that help track one’s progress, such as the option to save vocabulary items or phrases in distinct lists for future study, are also included in the new interface presented to users. This means that viewers can now watch endless video content on YouTube with machine-created subtitles via Language Reactor in different language combinations. However, if these are to be included in the educational process, instructors must check the quality of the machine-translated versions because the end results are often inaccurate and contain erroneous renderings. The dialogue speed (preferably slow-paced narration) as well as the sound quality of the video material (less extraneous/background noise in the clip) can be used as selection criteria by instructors. To avoid the extra effort necessary to quality check video materials, viewers can also make use of the higher-quality multilingual versions of human subtitles that are offered as language options on different channels such as Ted Talks, Ted-Ed, Khan Academy.

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10. At the time of writing, it only works with Chrome, but versions compatible with the Firefox and Edge browsers are also scheduled for release soon, according to their webpage.
Jamie Oliver, The School of Life, Netflix Educational Documentaries, or even channels from official institutions such as the European Commission’s EuTube and the United Nations’s UN YouTube Channel.

What is new in Language Reactor’s latest version (as of August 2022), is the compilation of separate video catalogues for a wide selection of different languages with suggested YouTube channels containing audiovisual material for language learning. Each channel is signposted with the number of its subscribers as well as the percentage of its content that comes with subtitles. More than fifty channels are already streaming 100% subtitled material in English (Language Reactor 2023).

To further consolidate knowledge gained, Language Reactor provides study tips categorized according to different language proficiency levels found in audiovisual content retrievable from across several streaming platforms (Language Learning with Netflix 2023). These can be used by individuals as a self-study aid or by instructors who wish to include particular video segments and exercises in their classrooms’ formal teaching context.

Other platforms have added extra interactive activities based on the language input received through bilingual subtitles. For example, Animelon is described by its creators as a non-profit streaming platform where viewers can learn Japanese by watching anime content with the option to select any two of the three layers of subtitles in Japanese (using both the Hiragana and Katakana alphabets), Romaji (Romanized Japanese), and English. Users can choose to loop phrases, skip dialogue, and change video speed among other learning features. Full dialogue transcripts are automatically generated on the side bar and the translation history (i.e., translations the user has previously clicked/hovered over) of the words are also recorded. What makes Animelon different from the other platforms discussed is the inclusion of test exercises based on the words that have been clicked within the dialogues, offering a more interactive educational process. Interactive multiple-choice segments with final score results are, additionally, kept as records to keep track of the users’ progress. Flashcards can also be created as a learning aid to solidify the language skills acquired, allowing users to test themselves on words they had previously interacted with.

Streaming platforms that focus on one type of content (e.g., Korean dramas or Japanese anime) can certainly serve the needs of the specific fan community. More general and diverse audiences are, however, in search of audiovisual content

14. https://animelon.com/about
that can be tailored to their personal viewing preferences. Several, mostly subscription-based, platforms have placed emphasis on the use of bilingual subtitling as a pedagogical tool in language learning, using varied audiovisual content streamed on other platforms. One such example is FluentU,\footnote{https://www.fluentu.com/} which, as of August 2022, includes a collection of subtitled YouTube videos in twelve languages. The translations are human-made and are identically timed based on the same template. As a result, viewers can choose any language combination from the ones listed and watch their preferred content with synchronized bilingual subtitles. The videos on this platform are selected with the intention to help learners immerse themselves in real-word cultural and linguistic contexts by covering an array of language levels, thematic content and genres, including music videos, business talks, movie trailers, and so on. Teachvid’s\footnote{https://www.teachvid.com/} resources are also presented in the form of prefabricated activities based on YouTube videos. Users have access to bilingual subtitles as well as a full bilingual interactive transcript that is time-synchronized and highlights words as they are being spoken so that they correspond to the current video caption. The comparison of parallel texts is used as a learning tool since users can switch between languages, comparing them and noting differences.

The simultaneous provision of subtitling streams in two different languages has become a global phenomenon, noticeable, for example, in the way video streaming platforms with Asian content, such as Rakuten Viki’s Learn Mode\footnote{https://bit.ly/3CKO27t} and Animelon, have similarly integrated bilingual subtitling features. Originally established as non-professional initiatives, these platforms allow multiple users to simultaneously create subtitles worldwide, ultimately functioning as subscription VOD providers (e.g., Viki Pass). These platforms offer some functionality that is open to every internet user, offering benefits – including free subscriptions to the platform or special gifts and promotions – to subtitling volunteer contributors, thus contributing to the proliferation of online translation communities worldwide and their collaborative on-going and cutting-edge practices (Dwyer 2012, 2016). Rakuten Viki works as a terrain of online translation practice (including bilingual subtitling) which allows both its volunteers (through practicing language transfer skills) as well as its viewers (by coming into contact with authentic discourse and learning within the context of their favorite TV shows) to acquire or solidify their foreign language competence.

Viki’s fansubbing-supported model contributes to the internationalization of audiovisual translation practices and brings, as noted by Dwyer (2017, 217),
“programs from small language communities to diverse audiences across the globe.” The innovations in viewing patterns promoted by their members “break down the national and linguistic hierarchies that dominate contemporary media and professional audiovisual translation” (217). However, contrary to other platforms, Viki does not allow for extended experimentation “with different font typefaces, sizes or colors” (Dwyer 2017, 237). It does, however, challenge the omnipresence of English-speaking entertainment content, making media content from K-Drama (South Korean drama) and the Asian entertainment industry easily accessible to larger audiences through monolingual and bilingual subtitles. Translation-wise, Viki also challenges the unidirectional ‘West-to-the-rest’ nature of much translation traffic while simultaneously discouraging reliance on English as a pivot language, supporting crisscrossing media flows (Dwyer 2016).

Viki also serves as a pedagogical tool for language learning and once a video is uploaded on the platform, the Learn Mode toggle is made available in the settings menu. At the time of writing, it includes Korean, Mainland Chinese, Taiwanese, and Japanese programs that have at least 50% subtitles in the source language. Users have the option to turn this mode on and watch the content in both the original language and their preferred second language subtitle tracks. Replay buttons and arrows for easier navigation among subtitle segments are also available alongside features that display word meanings and pronunciations. By putting bilingual subtitling at the core of their practice, streaming platforms may prove to be an effective tool in foreign language learning, especially as edutainment appears to be gaining momentum as a new form of learning (Anikina and Yakimenko 2015, 476).

Bilibili, a Chinese VOD streaming platform, focusing among others on anime video, comics, and mobile games, also takes more artistic liberties and makes use of non-standard practices – in this case, colorful text. One of its signature features, called ‘danmaku’, allows for the insertion of bullet titles that can be overlaid on top of the video. Contrary to traditional subtitling conventions, these text snippets, although still limited in terms of character numbers, do not have to comply with time or space constraints and their content can even include pictorial graphics such as emoticons or smileys (Díaz Cintas and Remael 2021, 19). Wu et al. (2018, 212) identify caption providers as the major active user group that emerged as a result of the unique interaction design of danmaku, who unofficially contribute amateur translations to (untranslated) foreign language videos using danmaku comments. This form of barrage subtitles accentuates the viewing experience via interactivity and literally becomes a process of “inserting oneself into the streamed material and the audience community, rather than a silent voyeur in the darkness” (Jenkins 2017).
The bi- (or multi-)lingual feature can also be found in danmaku subtitles that are materialized multimodally. According to Yang (2021, 15), the visual effect of two separate danmaku entries may, at some point, “actually resemble the official fansubbed bilingual subtitles, at least for monolingual viewers.”

Another instance of active participation among user-consumers is the practice of translating public comments on videos uploaded on different international platforms. Once Bilibili users choose a video, they can create videos that include Chinese translations superimposed on the original language comments and upload them on the Chinese video-sharing platform. Even if this practice does not fall within other common bilingual subtitling practices described above, the parallel provision of the two subtitle tracks leads to an end result that resembles the interface of bilingual subtitling applications.

In following these practices, the members of online communities “help their monolingual Chinese-speaking fans and viewers to increase their cross-cultural engagement” by harnessing the digital services and tools available (Ding et al. 2021, 186). Members of these online communities, both as viewers of bilingually subtitled content as well as subtitling contributors, come in contact with an enormous number of creative renderings (neologisms and euphemisms), rich resources, and information which helps them build on their knowledge of language and culture (Chen 2022, 13). Chen (ibid.) further notes that when users participate in this kind of collaborative, user-generated translation and language learning activities, knowledge sharing goes beyond the scope of translation.

All the initiatives discussed in this section demonstrate how, with the advent of the internet and the widespread use of tools that have become publicly available, communities have adopted participatory practices in cocreational spaces that foster experimentation, sharing of resources, opinion exchange, and assistance among members. Bilingual subtitling tools seem to be gaining ground both in the case of PC-based and online practice. Their pedagogical implications are often stressed and promoted for viewers as individual learners or participants in more collective projects and platforms.

4. Bilingual subtitling and YouTube channels

Outside the regulated zone of professional practice, online subtitling practices for video uploading platforms are often more communal and less norm-abiding. YouTube (or Vimeo) content creators are not obliged to respect specific style guides as in the case of professional VOD service subtitling. Additionally, there is ever-increasing access to a myriad of languages online and, as discussed in Section 1, viewers are now given the chance to choose among a seemingly limitless
number of options for customizing their viewing experience. Providing subtitling (either intra- or interlingual) for the content streamed online within the YouTube commercial ecosystem is a practice that is constantly gaining ground since it can contribute to a channel’s success, which is measured according to the number of subscribers and the persistence of their engagement (Burgess and Green 2018, 75).

The two examples that follow, however, focus on cases where the videos on YouTube channels do not allow the audience to choose among optional subtitles, but rather make use of open bilingual subtitles embedded in the videos as they are streamed. In these cases, prospective learners are not given the choice to adjust their viewing according to subtitle preference but are presented with only one possible option, that of hard-subbed bilingual subtitles.

One such case is a multilingual YouTube channel, Easy Languages,\textsuperscript{18} that defines itself as a media project that aims to help people learn languages through authentic street interviews and real conversations (Easy Languages YouTube Channel 2023). Every video is bilingually subtitled in its source language as well as in English. Learner-viewers can watch authentic source-language material with short real-life dialogue exchanges on a wide variety of topics. This channel functions as an ‘umbrella’ or ‘parent’ channel that includes a wide variety of sub-channels accessible as separate playlists. Language combinations include ‘widespread’ pairs such as English–French as well as less commonly disseminated languages like Swahili or Malay. Monolingual subtitles are only used for the Easy English channel.

In terms of layout and presentation, hard-coded intralingual subtitles in the original language of the video are placed in the top line in large font, whereas the bottom line features interlingual subtitles in English, displayed in much smaller font – both are displayed in a gray ghost box. Occasionally, the different bilingual subtitle sets are displayed within the same video when, for instance, similar idiomatic expressions are compared among different languages.

Apart from the mixing of different languages, another practice that breaks with subtitling conventions is the inclusion of SDH strategies in the bilingual subtitles of these videos (see Figure 3). Sound effects and noises (e.g., 
rires, laughter)\textsuperscript{19} are indicated by using lower case characters and parentheses in both subtitle sets. Contrary to conventional interlingual subtitling guidelines on the omission of the typical features of spoken language, interjections (e.g., euh, um) are also included in the written dialogue. A further deviation from standardized interlingual subtitling norms is the inclusion of linguistic errors and corrections. For example, when someone makes a mistake while speaking, the actual erroneous utterance is

\textsuperscript{18} https://www.youtube.com/c/learnlanguages/about
\textsuperscript{19} https://www.youtube.com/watch?v=6FZQfsmgaYs&ab_channel=EasyFrench
included in the intralingual subtitle. A parenthetical addition is then inserted to indicate the grammatically correct form.

Figure 3. Easy Languages channel: SDH elements

This particular online community relies on the concept of participatory culture, in the form of affiliations and feedback exchange. As a global network of content creators, they share their experiences and practices by regularly organizing online and offline training to exchange ideas and improve their production. Comments are also collected from end-users regarding the reception of the videos and their content. This creates “mutual benefits for producer[s], co-producers and the community within the channel” (Atmaja 2017). The creators of bilingually subtitled films for different languages receive regular feedback from other, more experienced teams and the viewers themselves, and then use this feedback to improve the quality of their content (for example, in matters such as topic selection, duration, subtitles’ layout, and so on).

Bookbox20 is another example of an educational project that produces animated books with same language subtitling, available in more than twenty languages. As stated in its description, it resembles a jukebox of digital books, containing more than 500 different anibooks in the form of animated stories with intralingual subtitles that set out to improve reading skills (Bookbox YouTube Channel 2023). Bookbox aims to enhance basic reading literacy in the viewers’

20. https://www.youtube.com/user/bookboxinc
mother tongue, all the while facilitating their proficiency in foreign language learning, since watching turns into a fun reading activity.

Animation stories addressed to children are screened with narration strips on the bottom of the screen. Words are highlighted in a dynamic pace, in the form of a Karaoke interface. Since books in print form are expensive and occasionally difficult to distribute in some countries (India is an example given by the creators), a scalable and cost-effective project of this type is deemed ideal by a number of organizations including HundrED, BIRD, and Planet Read.

Bookbox’s designers experiment with different modalities and bilingual subtitling has become widespread within the Bookbox YouTube channel, albeit with a unique presentation style. Mixed language channels have been created to include dual language versions of the anibooks. Each channel is named after the language combination found within the video (e.g., English + Spanish, German + English, English + French). According to the traditional bilingual subtitling layout, the two subtitle tracks are delivered simultaneously on screen, while the language of the original is conveyed via the acoustic channel. In the case of Bookbox, however, instead of the parallel depiction of the two subtitling sets, each narrative line is spoken and subtitled in one language and, once the utterance has been completed, it is then repeated in a second language stream, accompanied by the equivalent second-language subtitles. The Spanish subtitles in the BookBox video, The Greatest Treasure: Bilingual – Learn Spanish with English, appear only three seconds after the English subtitles.

Alternatively, in the case of monolingually subtitled videos, users can select one of the languages available in the YouTube Subtitle selection option (CC). Once they do, both subtitle tracks (the intralingual subtitle that is embedded in the original video and the interlingual subtitle selected by the viewer) can also be viewed simultaneously in the form of bilingual subtitles.

From the examples discussed in this section, it is clear that bilingual subtitling practices have emerged in different formats on YouTube video streaming channels, sometimes as an inseparable part of the video, and sometimes as a customiz-

23. https://www.planetread.org/
24. Platforms with varied content have also been experimenting with audiovisual content delivered in two languages to satisfy their audience’s needs and preferences. ESPN is launching “its first bilingual sports news show aimed at the growing audience of Latino viewers in the United States” (Battaglio 2016).
25. https://cutt.ly/ym2U8M1
able feature. The language learning potential of bilingual subtitles is increasingly explored in innovative ways, with bilingual subtitle formatting deviating from conventional norms to help learners achieve higher language gains.

5. Conclusion and suggestions for further research

Bilingual subtitling has been gaining momentum as a result of both professional and amateur contributions. Professionals prepare bilingual subtitles for theatre and festival productions, catering for the needs of deaf and hard of hearing people, and audiences who need subtitles to understand the source language. Professional subtitles already prepared for streaming media are often retrieved and screened in parallel in different contexts and with the aid of various tools, such as Language Reactor. Amateurs, on the other hand, keep on experimenting with new forms, taking advantage of both the technology at hand as well as the increasing audience demand for more available options and tailor-made viewing.

This novel streaming mediasphere can be examined from different perspectives, for example, focusing on multinational giants such as Netflix or Disney who formally commission professionally produced material, or on individual content providers and fan-made content distributed online by amateurs. The not-too-distant future of bilingual subtitling within the streaming world could include the addition of the option to watch bilingualy subtitled content via the official platforms themselves. Providing this option could be considered as an attempt to satisfy consumer demands, and would make bilingual subtitling optionally accessible immediately via Smart TV applications or teletext for public TV screenings.

As different incentives inform its reconfiguration, be that for the purpose of entertainment, education or a combination of the two, bilingual subtitling has found its way into the world of streaming through online collaborations and affiliations. Due to its constantly evolving patterns of distribution and the audience’s active participation and reception, this subtitling mode can also be portrayed as “an ongoing process of media convergence, occurring at various intersections of media technologies, industries, content and audiences” (Jenkins 2001, 1), with the emerging media streaming landscape serving as an ideal terrain for all these new textualities to flourish.

More research can be conducted to investigate new ways of integrating audio-visual content with bilingual subtitles within the context of foreign language learning, as discussed in Section 2.1. This type of subtitling offers limitless potential for contemporary learners, and its adoption as a teaching aid can yield educational benefits, from enhancing user experience and engagement, to achieving higher learning objectives. The intrinsic advantage lies in the flexibility that char-
acterizes bilingual subtitles as a tool adjustable for different language levels and learner profiles (e.g., language pairs, order of L1-L2 appearance, and instant juxta-position of interlingual dialogue content).

At the same time, reception studies can further address questions on whether or to what extent the insertion of bilingual subtitles, as more complex verbal visual elements, may critically alter the image composition and how their placement may eventually shift the focus away from the action taking place on screen and ultimately impact the audience’s viewing experience. Furthermore, the use of “integrated titles” (Fox 2016, 7) or “text inserts” (McClarty 2014, 592) that are a part of the original cinematic composition can also be examined in terms of audience reception and preference, since once their translation is simultaneously placed on screen they turn to bilingual subtitles.

As this study has demonstrated, different platforms and applications have been challenging well-established conventions and have favored customization options. These traits seem to be in line with Pedersen’s (2018, 83) view that streamed content has shifted audiovisual translation patterns “from a monolithic national choice to the choice of individual viewers.” Users are now left to choose among a plethora of different tools, the development of which goes hand in hand with the evolution of streaming technology. The reception of free-form or creative bilingual subtitles can also be the subject of future studies on new and alternative subtitling forms as they seem to increase in volume and frequency of appearance.

References


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Publication history

Date received: 30 August 2021
Date accepted: 19 March 2023
Published online: 23 May 2023