

Technical Constraints Faced by Arab Translators in Subtitling Audiovisual Products from English into Arabic: Review of Constraints and Solution

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DOI: <https://doi.org/10.36348/sijll.2024.v07i09.006>

| Received: 16.08.2024 | Accepted: 24.09.2024 | Published: 28.09.2024

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Abstract

Arab translators dealing with audiovisual products encounter enormous constraints when subtitling English into Arabic. The constraints are massive, representing linguistic and cultural as the bulk of the problematic areas. In contrast, other constraints, such as technical constraints, remain depreciated and have received less notice in research until now. Therefore, this study aims to identify the technical constraints that Arab translators face when subtitling Audiovisual products from English into Arabic. The analysis of previous contributions of some scholars and researchers revealed certain subtitling conventions wherein technical constraints such as the number of lines, characters, and words per line affect the readability and the quality of subtitling. These constraints not only exist but also seem to exist because Arabs desperately need a long overdue revolution in the subtitling industry fueled by state-of-the-art digital technology that would help tackle the technical issues associated with subtitling. The problems are investigated in depth, and solutions to overcome them are explained to enhance Arab translators' technical expertise and knowledge in generating high-quality subtitling.

Keywords: Subtitling Constraints, Technical constraints, subtitling software, subtitling quality.

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INTRODUCTION

Audiovisual translation has gained much attention recently because of the explosion of the media industry around the globe. The ever-growing and expanding media industry has forced translators to reconsider their theoretical and practical translation issues to deal with the enormous media production being transmitted into various languages. Chaume (2018);

The global world media markets that produce audiovisual content and entertainment are absolutely aware of this and, consequently, are becoming ever more aware of the role of translation, also referred to by the industry as localization, internationalization, or even glocalization, that is, the process of adapting an audiovisual production to the norms, likes and dislikes of different target cultures (P, 41).

The changing global practices in the media industry have remarkably endorsed AVT as a highly demanded, vibrant translation branch for translating an array of media broadcasted and published in multimedia formats. AVT, with its unique features and strategies, has

captured a prominent place among scholars and researchers to probe into the area, which has been widely neglected until recently. (Reich, 2006). These new challenges have increased the demand for audiovisual translation to bridge the gap in translating and subtitling different inter-lingual, semiotics, and cultural-bound expressions included in movies, TV shows, and theater series. Moreover, new technologies have contributed to the supply and demand for new media types. A translator's fabulous job is to render the meaning from SL to TL, usually from printed texts. These practices have been going on for decades. However, the situation appears to be entirely different when translating verbal and nonverbal components found, for instance, in a movie scene accompanied by sound, images, and cultural-oriented dialogue, let alone the technical constraints that shape the final production of the subtitling.

Subtitling translation is a modern specialized technical, linguistic, and literary type. The reception of English movies in Arab countries has made it necessary to subtitle these films into Arabic, and so have the

different satellite channels. The two types of translation (subtitling and the translation of classical literary prose) are, thus, linked to other factors of Arabic rather than those of the English source text. These can be societal, technical, and other factors related to the medium. In the subtitling industry, Arab Translators face various constraints in their professional activities that undermine their performance. They have to struggle with restrictions imposed by their specific technical tasks. These technical linguistics and cultural constraints represent a vital dimension in the subtitling industry. Thawabteh (2011) states, "A competent subtitler should not only be conversant linguistically and culturally but also technically in order to handle the technical constraints of the software he or she is using." (p. 25). Likewise, Al Tamimi & Mansy (2023) identify the nature of technical constraints:

The technical arrangement that helps this process happen usually takes place prior to translation when another specialist or technician—known as the time-coder—performs the time-coding or cueing in which s/he uses specialized Software to divide the translation file into smaller slots known as cells. Each cell corresponds to an utterance and is proportionate to it in terms of length and duration, which usually extends from two to six seconds (p. 1).

Ensuring that these translators' work is carried out efficiently in the subtitling industry is necessary to make them aware of all the constraints they might contend with, especially technical constraints. With Admin, the translators first recognize these constraints, and the quality of the final production of the subtitling can be ensured. Subtitling conventions wherein technical constraints like the number of lines, the number of characters, and the number of words per line affect the readability and the quality of subtitling. In transferring meaning from the source to the target languages, Arab translators face several linguistic and cross-linguistic problems, the most prominent of which are the challenges of rendering long or complex texts into brief, comprehensible subtitles that appear for just a few seconds.

Research in Audiovisual translation has focused on the linguistic and pragmatic problems that originate from subtitling as a transfer mode. (Alharthi, 2016; Lovji, 2013) However, very few or no research studies or articles (Haikuo, 2015; Green, 1979; Kalıpcı, 2018; Imre, 2015) have focused on the technical constraints that, in most cases, become obstacles for the translator and negatively impact the quality and readability of Arabic subtitles. Therefore, the current paper investigates the technical challenges in subtitling audiovisual products into Arabic for the idea that awareness of these constraints by Arab translators would ensure that various audiovisual products are translated and subtitled effectively and efficiently into Arabic. To

achieve this goal, the nature of technical constraints is deeply and meticulously explained to help improve the quality of translation outcomes.

The study attempts to identify the technical constraints that Arab translators encounter in translating the subtitling of audiovisual products into Arabic through technical perspectives. It will strive to answer some questions, such as:

- 1) What are the technical constraints Arab translators face in subtitling Audiovisual products?
- 2) What are the possible solutions to overcome these technical constraints?
- 3) To what extent does the use of subtitling Software eliminate the portion of technical problems?

LITERATURE REVIEW

Subtitling: General Overview

Subtitling is one of the most well-known modes of AVT. (Fong and Au 2009; Abdelaal & Al Sarhani, 2021). Most, if not all, the media industry depends entirely on subtitling to distribute its products to a wide range of global audiences in different natural languages. Subtitling is translating the language of origin into the target language in a written format at the bottom of the screen, usually in two lines.

Nearly every aspect of the media relies entirely on subtitling to make content available to a broad spectrum of international viewers across various languages. Hence, subtitling involves converting the original language into the target audience's language in a written form at the bottom of the screen, typically in two lines. Luyken *et al.*, (1991) define subtitling as "... condensed written translations of original dialogue which appear as lines of text, usually positioned towards the foot of the screen". (p. 31). In the media industry, subtitling is described as the method of converting spoken words (dialogue) into written text that appears at the bottom of the screen, often in a detailed manner that matches the spoken language, to allow viewers to understand the written content at their own pace. Antonini (2005) explains the reduction strategies adopted by translators: "The words contained in the original dialogues tend to be reduced by between 40 and 75 percent to give viewers the chance of reading the subtitles while watching the film at the same time". (p. 213). This point represents the necessity of having a proper time for displaying the subtitling on the screen at the same time the original conversation occurs and disappears immediately after the end.

Likewise, Díaz Cintas and Remael (2014) define subtitling as "A translation practice that consists of presenting a written text, generally on the lower part of the screen, that endeavors to recount the original dialogue of the speakers, as well as the discursive elements that appear in the image." (p. 8).

Subtitling Constraints

Like any other discipline, translation studies enjoy enormous difficulties associated with various issues related to the translation process. These challenges and constraints face translators and practitioners while attempting to render the meaning from source texts into the target texts. However, the nature of these constraints and challenges varies based on the type of particular translation process. For instance, translating cultural-oriented texts represents a challenge for translators with no exposure to Western culture, while translating a medical text represents a specific challenge in dealing correctly with medical terminology. In the same regard, translating audiovisual products as a sub-division of translation studies also has distinguished difficulties that need to be addressed empirically to arrive at better solutions. Translating and subtitling audiovisual materials is considered essential to translation research due to its complexity and detail. This is likely due to the unique nature of visual and auditory texts, featuring different media elements that highlight the distinct characteristics of audiovisual texts. Pedersen (2011) identifies three subtitling constraints, which are known as "spatial constraints, temporal constraints, and constraints stipulated by a semiotic switch from spoken to written language." (P. 18). Similarly, Di Giovanni (2016) identified some ways to deal with subtitling constraints as stated:

Nonetheless, subtitling is a highly complex, multifarious activity. It implies several stages, requires a number of skills amongst which are linguistic and cultural competences. Moreover, subtitling demands that all the skills and competences noted above are activated simultaneously and with an equal degree of awareness (p. 3).

Therefore, probing into the nature of all these difficulties, constraints, and challenges represents the core of this study. The shortcomings of dealing with all these constraints would profoundly affect the quality of the translation outcomes. Thus, it is essential to tackle these problems thoroughly by conducting empirical and theoretical studies, aiming to create reliable databases and collections that better support AVT and subtitles in specific contexts. The most frequent difficulties and constraints are more or less associated with linguistics, culture (Debbas & S Haider, 2020; Mudawe, 2024; Mehawesh & Neimneh, 2021), and technical issues that make subtitling from English into Arabic a daunting task. Therefore, this part of the study highlights and presents more details of technical difficulties, challenges, and constraints.

Review of Technical Constraints of Subtitling

Subtitling translations into Arabic requires intralingual subtitling constraints by re-creating space between lines according to the source and target texts. Results show that semantic differences are closely linked to linguistic interference. Different items influence

reading in other ways, depending on their appearance timings. Cintas and Remael (2010, pp.19-21) indicate that this is a significant difficulty encountered during the subtitling process, leading to certain limitations for the translator. They categorized them as:

- I. **The space:** Translators are restricted with a limited number of characters through the subtitling process, which is about (37 +, -) characters per line with a maximum of two lines for one image. This number of characters may slightly differ from one language to another. The used syllables affect this number; for example, using (MW) takes more space than using syllables like (li).
- II. **Time:** Another technical limit is that the allowed time for subtitles is at most six seconds on the screen. i.e., the content has to be cut down to fit the limited number of characters and the time shown in the subtitles on the screen. This may affect how the viewers catch the subtitle and understand the content. Therefore, the correct word choice to present the content with a possible limited number of words may help in this issue.
- III. **Spotting:** The screen's subtitle must be carefully matched with the dialogue. However, subtitling may not include the dialogue of the characters or narrators only. However, it may consist of other meaningful signs, letters, or written words (Cintas & Remael, 2010).
- IV. **Position on screen:** On the screen, the subtitle must be positioned between 10% from each frame edge to be in the center and at the bottom of the screen. It has been stated that Arab translators not only need to acquire the skills that support their subtitling abilities, but some technical skills are also vital to the quality of outcomes, such as "text analysis, subject expertise, language, awareness of context, quality control, and so forth." (Kruger, 2008, p. 82)

Go Global (2021, March 15) has contributed to clarifying the types of challenges subtitling translators may face. Below are the 10th challenges:

1. **Exposed Translation:** The public will be constantly exposed to the source language. As a result, they are always aware that they are dealing with a translation. This does not happen when they read a book, for example. On top of this, we consider that the public may not be aware of the technical aspects of this type of work. In that case, we will understand why it is expected to hear more complaints about subtitle translations than literary ones. For this reason, subtitle invisibility is the top goal of an audiovisual translator.
2. **Time Restrictions:** The translation must appear on the screen when equivalent to its utterance. One of the essential subtitling parameters is reading speed. No matter how good a translation may be, it is useless if the public cannot read fast enough to understand it, right?
3. **Space Restrictions:** The translation must not cover more screen space than necessary. As a result, there

are limits regarding the number of characters per line and location on the screen.

4. **Syntheses Ability:** This kind of translation cannot translate the original text because of the restrictions. Audiovisual translators must know how to prioritize information and translate only what is necessary to convey the message without covering the screen with text or forcing the public to read too fast.
5. **Reading Flow Conservation:** Each subtitle line must have the most prolonged meaning or semantic unit possible. Translators must avoid splitting articles or adjectives from their respective nouns and leaving isolated prepositions, for instance, to naturalize subtitle reading to make translation invisible.
6. **Inter-semiotic and Inter-linguistic Translation:** Audiovisual translators are not limited to translating a message from one language into another; they must also consider that the message is being converted from oral to written form. If this were not enough, we also have visual marks (such as looks or gestures) that may affect the message.
7. **Contemporary Culture:** Many texts pose challenges related to informal language and contemporary culture. However, such difficulties are even more significant in the oral language. For example, audiovisual translators may have to subtitle a song to keep its humor and rhyme and ensure it matches what is being shown on screen.
8. **Audiovisual Rhythm Conservation:** Many people have meticulously planned each TV show or movie scene to achieve the perfect rhythm. Suppose we can make subtitles merge naturally into the audiovisual rhythm. In that case, we can help the public forget they face a translation, and our work will become invisible.
9. **Cut Sync:** Translators must avoid creating subtitles that do not match shots or scene changes. This is one of the most time-consuming technical aspects for the translator. However, it is crucial to guarantee subtitle invisibility.

Similarly, Gamal (2009) specified 10 points representing the difficulties and constraints of subtitling English into Arabic. Some of these difficulties revolve around the technical constraints: 1) The font used in subtitles is too tiny, and subtitles are too fast to read; 2) The font used in subtitles is too small, and subtitles are too fast to read; 3) Spotting is a significant source of irritation, and 4) The white color of the subtitles is unhelpful. (p. 5-6).

METHODOLOGY

The study adopted a conceptual research methodology. It identified the technical constraints that face Arab translators through a theoretical framework developed by several scholars. These technical constraints were thoroughly examined to answer the study's questions.

DISCUSSION

1. What are the technical constraints Arab translators face in subtitling Audiovisual products?

Technical constraints are the most challenging part of the subtitling process. Most Arabic subtitles confront the dilemma of creating a subtitle that adheres to the rigid time constraints of subtitle viewing while encapsulating the sense and ideas of the spoken script. In a broader sense, "these constraints include limited screen space, timing limitations, and technical limitations of the software or platform used for subtitling." (aiaTranslations, 2024). Some of these technical constraints are identified with an in-depth explanation below.

Reduction: Translated material is often 'cut down' to fit in the available space, particularly in real-time programs like live news. "The amount of dialogue has to be reduced to meet the technical conditions of the medium and the reading capacities of non-native language users." (De Linde & Kay, 1999, pp.1-2). Even in pre-recorded material, subtitlers are subject to strict time constraints, causing potential information erasure. Such constraints may affect the caption and clumsy the composition of the target language. "When the available space is only at one scene, while the text that appears requires more, a translator needs to use translation techniques that can summarize a message into a shorter one, such as Paraphrasing, Reduction, and Linguistic Compression." (Octya, *Professional tips for overcoming subtitling difficulties* 2022).

Font and style constraints

Several technical constraints can be problems for the subtitler working from English to Arabic. We can divide them into font and style constraints and timing constraints. These constraints relate to the particular necessities or stylistic conventions of the Arabic language, and they are more significant since their nonobservance poses challenges to the subtitler and, less addressed, to the viewer. While the first group raises textual and linguistic difficulties, the second group raises a technical one. In general, lines, the Arabic powers, the script, the font, and the style are more complex than the English ones and are usually different. This complexity relates to the unique feature of Arabic and, to some extent, to its derived feature, which is the script, the various kinds of fonts and styles available, and others that conform with that feature of this language.

We can start by considering the type of font and style used in a subtitled AVA. The visual impact of the subtitled text on the image is decided by the kind of font and style used and, of course, the size. Consequently, the reader's smooth experience or disruption while viewing the subtitled text depends on the type of font and style selected. In terms of meaning, while the reader reads the subtitled text, the text appears on the image briefly before it vanishes, so the viewers have the right to trust its quality. This is because the appearance of the text on

the images is temporary, and they need more time to reconsider.

Text position on the screen

The position of the subtitles on the screen is one of the most critical technical issues that require subtitlers' attention. It is well known that the perfect position on the screen should be at the bottom, and the lines must capture at least half of the screen to become visible to the audience.

Synchronization with Audio

Synchronization with the audio is an easier obstacle to overcome. Experienced broadcasters and subtitlers devise some rules, such as timing. The presence of a subtitle that is directly aligned with the start of a spoken dialogue on the screen, making sure that the subtitle does not exceed 6 seconds in duration, preferably divided into 3 or 4 complete sentences. "If not, the presentation rate would often have to be so high that subtitles would flash on the screen and disappear without giving viewers a chance to read them." (Szarkowska *et al.*, 2016, p. 184).

Text length and number of lines: The standard lines are two on the screen. In order to maintain visual comfort, subtitlers should ensure that a maximum of two lines containing 60 characters are still visible on the screen. The subtitle text should be centered on its allocated line(s). Given that most of the action in the image revolves around the center of the screen, this positioning will again allow the viewer's eye to catch the beginning of the subtitling.

Duration of Subtitling:

The duration of the subtitling is entirely associated with audiences' expected reading speed limits. It has been recognized that 1 second should be the minimum time for the subtitling to appear on screen, and 7 seconds should be the maximum duration.

2) What are the possible solutions to overcome these technical constraints?

Training and Professional Development

In the translation training journey, the primary purpose is to equip and empower translators who work in the subtitling industry, in particular, to engage in a series of training and workshops to adopt the essential skills and exchange their deep knowledge with professionals in the field is critical. (Ho, 2015; Afolabi, 2019; Gambrell & Lesch, 2021). The need for such improvement is associated with the nature of subtitling tasks. The fact that subtitling necessitates clustering sentences concerning screen time reordering also contributes to meaning production, partly due to the demands of subtitling to read complete multilevel textual organizations as quickly as possible. Viewing other aspects of language transfer has shown some communities of practice greater flexibility than others. Research on language transfer has revealed that some

groups of experts are more adaptable than others. Therefore, "it's important to work with expert translators with a technical background. Expert translators can not only translate technical jargon accurately but also ensure that the subtitles maintain technical accuracy." (Admin, *Subtitling challenges and solutions in the streaming era: A translation perspective* 2024). This difference can be attributed to varying levels of skill and the self-assurance that Arabic translators possess in their abilities, which is their skill in performing tasks expected of speakers of a language in everyday cultural and social situations.

Professional subtitling Software

Several software programs and add-ons have been designed and developed to assist "in managing timing and formatting issues, ensuring that the subtitles are synchronized with the audio and presented in a visually appealing manner." (aiaTranslations, 2024). Moreover, these software programs can be consulted easily, replacing manual calculation processes and minimizing preparation and turnaround time, aside from the resultant good-quality subtitles they generate. Such software programs can automatically set different subtitles' in and out times. They will take care of timing issues, calculate reading speed, ensure comfortable reading, and thus solve a tall task in record time. According to *Quality Assurance in Subtitling* (2024), subtitling Software has excellent features that include 1) Automated timing and synchronization tools to match subtitles with audio cues, 2) Customizable templates for consistent styling across various content, and 3) Quality control checks for spelling, grammar, and formatting errors. In addition, professional subtitling systems offer a range of built-in linguistic tools and features that can assist in the production. These include automated speech recognition services and template-based system functionality, user-defined dictionaries, and user- or company-organized termbases, which ease the pains of lesser-known terms, spell checkers, translation memory, and automatic time-coding tools. Software tools in parametrization, system transformation, and subtitling display and layout also come into play. These tools, some of which are publicly available and have a fair price tag, are versatile and flexible. They allow the translator to break the target into digestible pieces rather than deal with it as a monolithic whole.

Editing Subtitling

Another tool we have investigated that seems very promising and presents several innovative features, unlike Subtitle Workshop, which appears to belong to a previous generation, is "Subtitle Edit," one of the most popular subtitling free editors that many experts in the field appreciate. It is available on many platforms, even though the interface has been adapted to suit systems other than Windows. It is off-registration and offers little help and prosperous user assistance, tips, and techniques. It coaches the user on everything from start to finish. The user can follow the directions step by step. What is interesting is that the translations are done without any

constraints at all since no character limits are imposed. In addition, the text is kept in its original format. This tool can protect it because any additional text will not be considered. For line breaks, for example, it also replaces capital letters after a simple double space. The multimedia file can be listened to until a subtitle designates the exact word.

3) To what extent does the use of subtitling Software enhance the quality of subtitling?

Assessing the quality of subtitling is one of the most critical elements in the subtitling process, from the initial steps to the final checking. Therefore, assessment is "a meticulous process that ensures subtitles are accurate and clear and enhances the viewing experience." (*Quality Assurance in Subtitling* 2024). Larson (1998) has identified three critical elements in evaluating the quality of subtitling: Accuracy, clarity, and naturalness. These three categories profoundly impact the final production of the subtitling. For instance, "Less Accurate indicates that the meaning of the source language is not accurately conveyed in the target language. There are some ambiguities in the meaning." (Marhamah *et al.*, 2021, p. 524). Therefore, Arab subtitlers have to rethink their subtitling strategies to guarantee a maximum degree of accuracy. In the same vein, McDonald (2020, p.1) has identified three characteristics, "accuracy, readability, and acceptability," that must be addressed in assessing the quality of subtitling.

On the other hand, translation quality will be significantly affected if a translator has several technical constraints, such as time, space, and two-speed levels. It has been observed that English words are often summarized in the translation through paraphrasing, summarizing phrases, skipping words, or truncating sentences. Such summaries, however, are only sometimes efficient. Summarizing source language sentences makes the translated speech strained and less coherent. Moreover, the translated sentences sometimes distort the actual content in the source language. The assumption that subtitling is exclusively about transferring content is misleading, as much adaptation must be done to cater to the cultural needs of the target viewers. Successful subtitlers draw on their creativity and imagination when choosing how to best communicate the nuances of the original context into the target language for a specific group of viewers. In addition, subtitle translation sometimes simplifies cultural barriers too much by using a low-level language, leaving Arabic target viewers needing more information on English culture or the movie and the story behind the dialogue.

Collaboration with translation memory software would help the interviewees solve many technical problems when subtitling English films into Arabic. For example, it provides instant access to synonyms and can alert anyone coming upon/citing a

phrase already translated when translating the subtitles for another related movie. It can divide a text into bits, assign each bit a deadline, apply the termbase in translation resources, and linearly compare all segments to translate them simultaneously directly from one to the other. These practical features of translation memories are a source of solutions to many technical problems, which could facilitate the work of translators and subtitlers.

CONCLUSION

The study investigates the constraints Arab translators face in subtitling audiovisual products from English into Arabic and how these constraints can affect the production and quality of Arabic Subtitles. These constraints are examined from technical perspectives, emphasizing technology's role in overcoming them. Audiovisual translation is deeply connected to technological advancements. It differs from other types of translations in that technology is essential rather than merely an additional benefit. Given the urgency of the subtitling process for those working in this field, it is crucial for the industry to fully recognize the importance of subtitling and approach any technical solutions with caution, as they often lead to errors that require thorough quality control both before and after the editing phase. Through technical perspectives, there is an active discourse in subtitling about technical parameters that affect the quality, particularly of the script being dubbed, the complexity of the content, and its potential target audience. However, constrained by the limited attention given to Arabic subtitling, discussions are often metaphysical rather than technical, particularly regarding practical implications. Subtitling usually changes the source language expressions to adapt to the length requirements of written Arabic and rearranges the sentence content to achieve fluency and naturalness, specifically with dubbed dialogues. Some meanings could be changed or omitted to justify local visual and audio constraints caused by the translation wrapping, where minor logical relations are changed, and some sentences are dropped. These practices result in poorer translations. Wrapping and length constraints often change word orders, so meanings are distorted and lost (Moran, 2012; Szarkowska *et al.*, 2011).

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