# Putting Subtitle Localization to Work for You: A Method and Use-Case White Paper

Examining how LAI's proprietary workflow and custom tools can power your technical subtitle localization needs

Executive Summary

Localization, or adapting your product or service to suit a specific target audience and geographic market, is a crucial part of the modern globalized business landscape. You want to make sure your product feels natural and familiar to the end user, no matter where in the world they are or what language they access it in. It goes far beyond a mere direct translation of the words and needs a comprehensive understanding of the cultural and regional differences at play to feel authentic.

Subtitle localization for webinars, training videos, and other professional content is inherently more difficult than localizing ordinary workplace documents. Trying to tackle subtitle translation and localization using conventional workflows will inevitably lead to problems that have knock-on effects on the quality, cost, and even release schedule of a product. Luckily, there is a better way!

This white paper will examine these unique pain points in the subtitle localization process in detail. We will also showcase how LAI Technical Translation Services' innovative custom tools and proprietary subtitle localization workflow will solve these problems for you, putting our decades of industry experience to work on your behalf. We will also touch on the many benefits this distinctive process offers over time-consuming and unwieldy traditional translation methods.

Introduction

Video has fast become the most dominant media consumed in the world. From distributing educational and training materials (like webinars and courseware) to how we consume our daily dose of entertainment, video is king. We collectively watch over 3 billion hours of videos monthly on YouTube alone, by 2023 statistics. Now multiply that by the many public and private streaming platforms and content hubs globally.

As we have adapted to the always-on digital landscape, the ubiquitousness of high-speed networks and video-sharing platforms has made video ideal for reaching the widest possible audience at the lowest possible cost of distribution. Humans can assimilate a massive amount of detail in a short time by listening and watching-quicker even than we can read. And it is an ideal medium for sharing content with global audiences in a meaningful, impactful way.

The Pressing Need for Language Localization

When your audience is global, however, your content must be, too. Yet remaking videos from scratch for each audience, and sourcing native speakers and scriptwriters, quickly becomes cost-prohibitive. This means translation and localization services are more important than ever before, no matter your industry. Especially where the content is on a technical subject, where the viewer may face jargon and industry-specific terms, or where they will need to learn and review the information provided for later reference.

Your journey to that perfectly localized content, no matter where in the world you work, starts with smart subtitle localization. LAI Technical Translation Services has the tools and industry-leading experience you need to make that happen cost-effectively and with fantastic results.
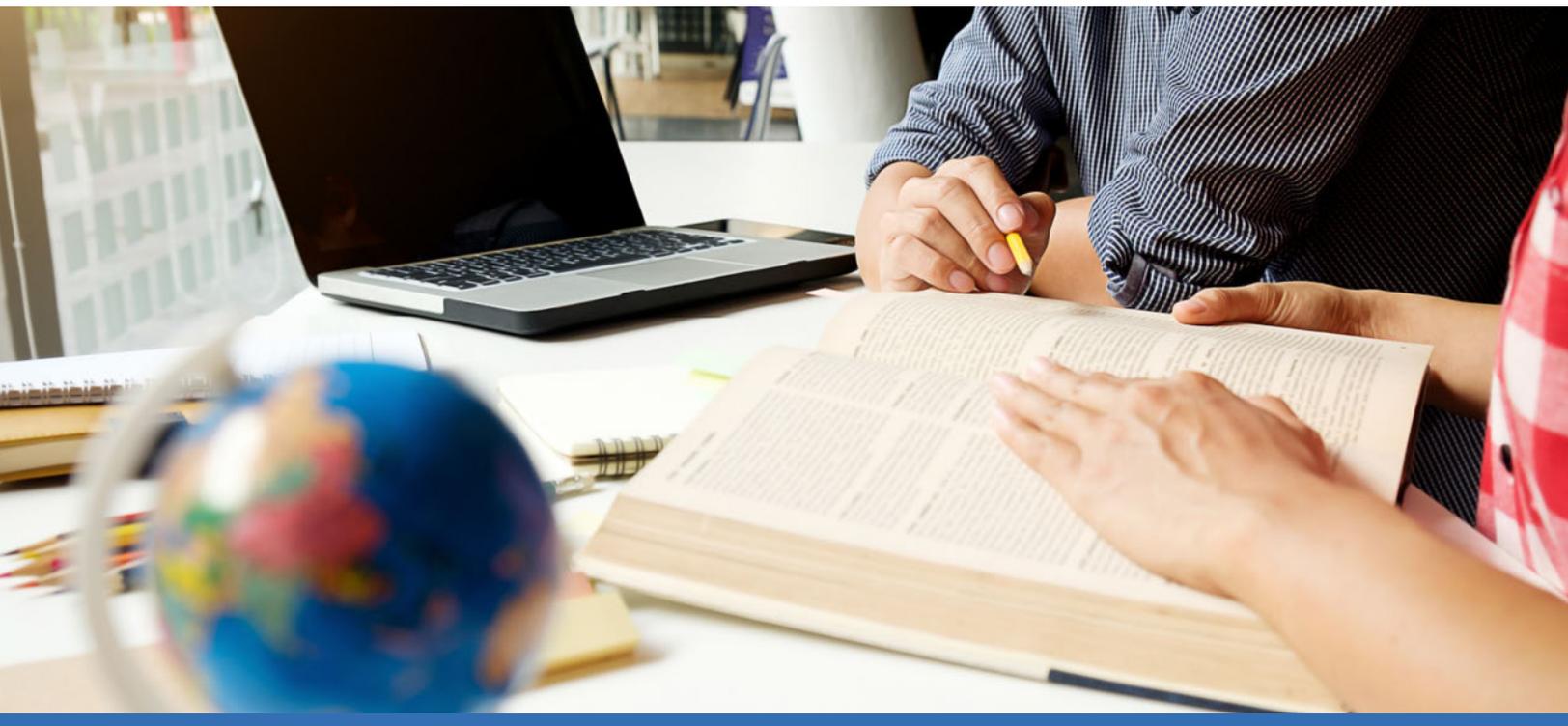
What Happens in the Traditional Subtitle Generation Process?

It is common for subtitles to be generated automatically by transcription software using a source video file. A text file is then created, marked with a timecode alongside each line.

SUBTITLE GENERATION

Click the gear icon to open the settings screen and select your preferences. Be sure to specify the output format and resolution.

VIDEO

AUTO-TRANSCRIPTION

00:10   Click the gear icon to open the settings screen and

00:20   select your preferences. Be sure to specify the

00:30   output format and resolution.

GENERATED SUBTITLES
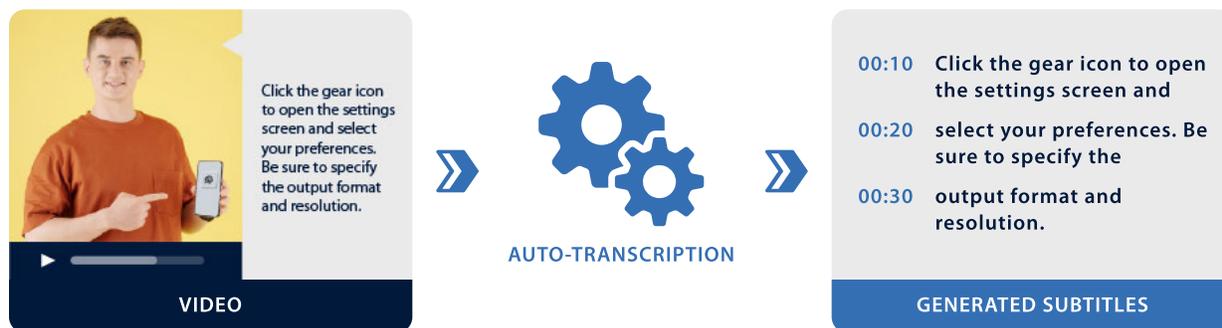
Classic subtitles generated this way have numerous constraints. There is a maximum number of words (and even character length) that can be assigned to the timecode to ensure a comfortable reading speed for the viewer and the correct display of the subtitles on the available screen real estate.

This means the transcription software will frequently break long sentences across several sets of subtitles-sometimes rather arbitrarily, and rarely in ways that 'make sense' when compared with a natural vocal delivery. You can see this in the example below, where we compare a natural spoken flow to the subtitle equivalent:

SUBTITLE GENERATION

Click the gear icon to open the settings screen and select your preferences. Be sure to specify the output format and resolution.

VIDEO

AUTO-TRANSCRIPTION

00:10   Click the gear icon to open the settings screen and

00:20   select your preferences. Be sure to specify the

00:30   output format and resolution.

GENERATED SUBTITLES
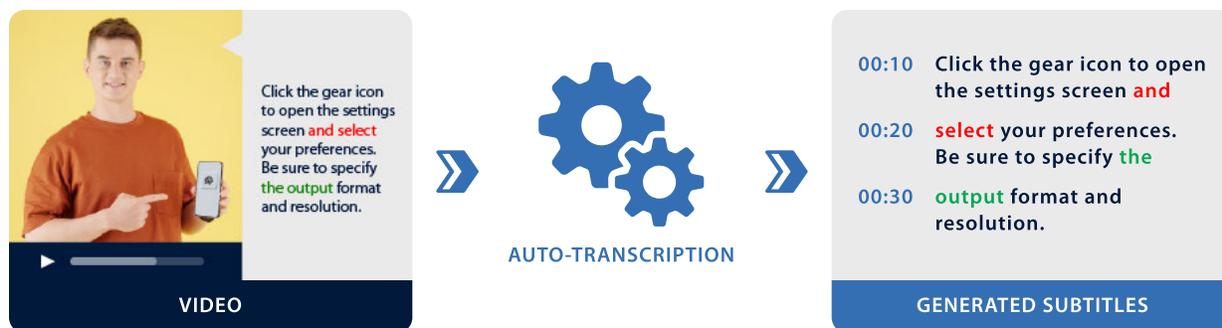
This problem is only exacerbated when you are shifting between languages. In the traditional translation process, each subtitle line is translated individually, keeping its associated timecode on each line.

However, the length of a translated text will often be different than in the source. Remember, word-for-word translations are rarely meaningful to listeners in the new language, and only the poorest quality 'translations' try that approach. Instead, the primary aim of high-quality translation is to capture the true sense and details of the source in a way that speaks accurately (and grammatically correctly) to the new audience. This can cause several common issues in skillfully synching the translated subtitles with the underlying video content.

Timecodes: The Hidden Key to Accurate Video Translations

Sync points are specific points in a video where the subtitles are synchronized to match the spoken dialogue or other relevant audio/visuals. As we've seen, each subtitle in the subtitle file is associated with a specific time range during which it should be displayed on the screen. Sync points ensure that subtitles appear on the screen at the right time, in coordination with the corresponding video. If subtitles are out of sync with the video, viewers may find it challenging to follow the core message at all. Proper synchronization helps prevent the subtitle outpacing or lagging behind the underlying video cues. This reduces viewer confusion and ensures that the subtitles always complement the unfolding visuals perfectly.

Translating dialogue (and thus subtitles) accurately between languages isn't as simple as you may think. Different languages express the same concept differently, with differing spoken times, as we've already noted. Sync points allow for adjustments in timing to accommodate these linguistic differences and keep sensible synchronization between the subtitles and the video.

Not only does accurate syncing of subtitles have a profound impact on the professionality of the translated video, but many platforms and broadcasters have specific standards for subtitle synchronization. Adhering to these standards is essential to ensure your content meets the requirements of your distribution channels and reaches a wider audience.

Problems in the Traditional Localization Process

TRADITIONAL PROCESS

ENGLISH (GENERATED) SUBTITLES	TRANSLATION	TRANSLATED SUBTITLES
00:10		00:10
00:20		00:20
00:30		00:30

This means that the quality of translation for subtitles can be easily impacted, as the translator has to deal with these non-linguistic technical issues as well as the linguistic ones. As well as balancing the length and time constraints inherent to subtitling, the translator must also spend time re-formatting the translation to accurately fit into each subtitle timecode. And it needs to be reader-friendly, too.

Loss of Focus and Decreased Quality

This means the translator's focus and concentration are pulled away from their main task- quality translation that speaks to a new audience- and onto fussy technical aspects the end audience will never see or realize existed in the first place.

The end result? Translation quality suffers. Your important core messaging may, quite literally, get 'lost in translation'. Additionally, the manual steps needed to address these issues make projects take longer and increase the cost of translation.

Text Expansion and Information Loss

It is important to recognize that the subtitle format itself imposes length constraints determined exclusively by the spoken text. This link between speech and written text limits the amount of text and information that can be shown to the viewer in any given subtitle.

Languages vary considerably in the physical 'space' they take to say the same thing. In technical subtitle localization, that can make it hard to 'fit' the translation in the same space allocated for the English subtitle. Confused? Here are three examples:

- German can expand up to 30% due to long, compound words (especially technical terms) that simply take up more space.
- Technical Japanese expands as technical terms are (typically) written in katakana, which can require a large number of characters to render.
- Furthermore, Asian languages like Japanese and Korean have distinct formal and informal forms. Formal language is preferred in subtitles for technical presentations and these forms require more characters to render and as a result, take up more space.

In traditional subtitle translation, this often leads to shortening and editing the translation to 'make it fit' - often at the expense of meaning, making it more difficult for the viewer to understand.

This problem is further compounded by the fact that the translator doing the editing is almost always not a subject-matter expert! So, the text will be edited arbitrarily without understanding how it will impact the content. This results in an actual 'lost in translation' problem, oftentimes resulting in critical and important technical information not being communicated properly, or at all to the viewer.

Pacing Mismatches

With that potential length variance between source and destination language in mind, you may also face a situation where subtitle users no longer have a comfortable or natural reading pace because sync points haven't been correctly applied. The translated subtitles may not even be on-screen long enough to read at all! If too much text was assigned to a specific timecode, the translator will then have to manually adjust the subtitling to compensate, or you risk losing viewer engagement. You can see this in action in our example below, at the 00:10 time code.

TRADITIONAL PROCESS
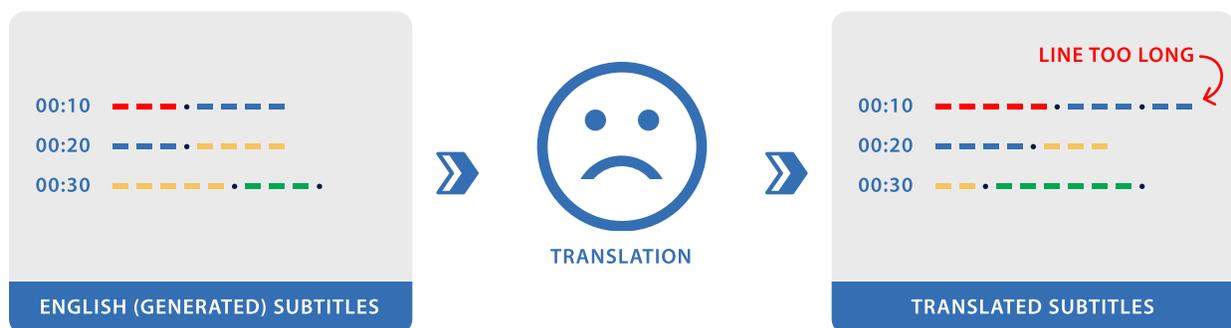
Again, cost and time to market will be impacted to address these issues manually.

Sync Issues and Overall Engagement

Building on our previous pain point and the overall idea of timecodes, when using translation and localization for videos instead of just generating like-for-like subtitling in the original language, the video and the translated text can get out of sync worryingly easily. Not only will your end video look low quality and unappealing, but if the video is too difficult to follow, viewers will get frustrated and tune out.

Remember when we mentioned the sheer volume of video consumed daily across the world? Even if you work in a niche industry with relatively few direct competitors, there's a ton of 'visual noise' out there competing for the scarcest resource of all- your viewer's precious time and attention. If your localized video is tiresome, difficult to follow, or confusing, your viewer will click away and find something better to spend that time and attention on.

This is especially problematic for educational videos and training webinars where a specific concept is being demonstrated on-screen. If the subtitle translation doesn't match what is being presented, it can be difficult for viewers to follow and understand. Making it even more likely that those viewers will lose interest and stop watching.

This is a common issue when hasty 'translation' is done without properly understanding the content and the destination language. If sync points between the text and video fail for any reason, it will exacerbate the problem further. This is why LAI prides itself on the linguistic quality and technical understanding of our translators.

Understanding Unique Languages

To add further fuel to the translation fire, not all languages have the same base features, structure, and even alphabets. Many of these are key business languages today, including many Asian languages.

Take Japanese as an example. Not only will subtitles be displayed in a wholly different character set from the Latin alphabet, but the word order is typically reversed from the English norm. This means even more time (and money) spent on formatting and manual adjustments and an elevated risk of mistakes and errors.

The LAI Difference: Revolutionizing Translation and Localization of Subtitles

LAI Technical Translation Services' unique approach to subtitle localization is your key to avoiding these common issues in traditional subtitle translation. Using our core linguistics team of skilled subject-matter experts with years of industry experience, and with our proprietary AI tools to boost the process, we've simplified the subtitling process across language barriers. This results in improved quality, lower cost, and a faster turnaround time for projects.

Step 1: Preprocessing Subtitles for a Simplified Workflow

Using one of our proprietary tools, we first unroll the subtitles into comprehensive, complete sentences free of the artificial boundaries timecodes create. This ensures they can be easily and accurately translated, with the translator's full focus on creating a faithful, meaningful reproduction of the source. This ensures a higher quality translation, delivered faster and at lower cost.

LAI'S PROCESS - STEP 1

00:10		
00:20		
00:30		

RESEGMENTATION

ENGLISH (GENERATED) SUBTITLES

RESEGMENTED SUBTITLES
(TIMECODES REMOVED)
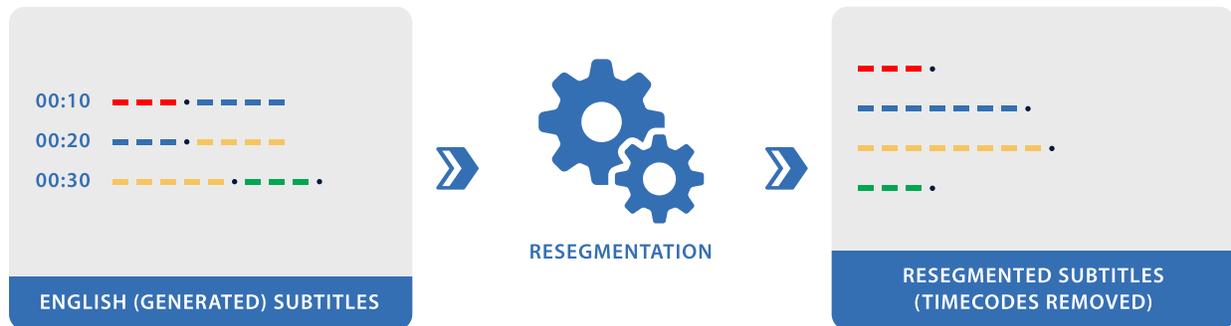
Step 2: Seamless Translation with Precise Meaning and Natural Flow

Now that the source and translation are perfectly matched, with no artificial subtitle breaks to complicate the issue, reviewing and assessing the translation for quality assurance will be a breeze. Changes can be made easily, and without worrying about timecode errors from them. Again, this ensures you put out only the best quality, most engaging, end product possible.

LAI'S PROCESS - STEP 2

TRANSLATION

RESEGMENTED SUBTITLES

TRANSLATED SENTENCES
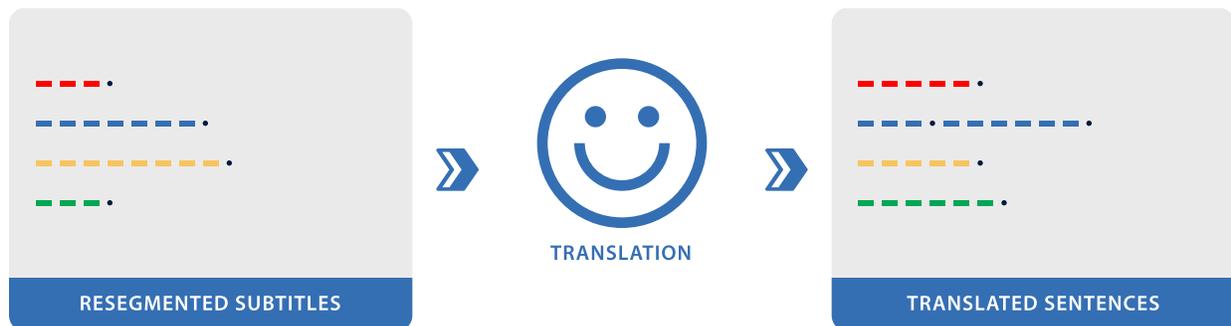
What about the text expansion issue we mentioned above? With the LAI approach, the translated text is not edited to make it fit within the original English timecodes. Instead, the timecodes themselves are adjusted (see Step 3) to make sure all information is properly communicated and at the same time, remains in sync with the

video. As the translation is in the hands of our subject-matter experts, all critical technical elements can be properly communicated.

LAI's system takes advantage of the fact that reading speed is faster than speaking speed, so more information can be communicated by text than the time needed to speak it. LAI's 'secret AI sauce' allows this link between spoken and written text to be broken, while ensuring that the synchronization between the video and the translation is preserved. We adjust not the text but the timing, ensuring the meaning is always clear and preserved in the target language.

Step 3: Perfecting Pacing

With the highest possible translation quality in hand, LAI will then resegment the translated sentences and reintroduce timecodes appropriately, ensuring the translation is always in sync with the video and keeping viewer engagement high.

Simultaneously, we will ensure the timing is properly paced, leaving each translated subtitle on-screen long enough for the viewer to read comfortably. Through one of our custom tools, the timecodes can be automatically adjusted as needed in a simpler, cleaner work process than manual adjustments offer.

LAI'S PROCESS - STEP 3

TRANSLATED SENTENCES

RETIMING AND REDISTRIBUTION

00:10
00:20
00:30
00:35

TRANSLATED SUBTITLES
(TIMECODES-ADJUSTED)

Clean, simple, and efficient! You will have a high-quality, meaningful, and engaging translation, perfectly paired with the on-screen video, with none of the issues inherent in traditional subtitle translation. And the process is a simplified, faster, and more cost-effective one, too.

The Critical Role of Our QA Tools in Subtitle Localization

LAI's quality assurance (QA) tools also play a crucial role in our localization process by helping to ensure the accuracy, consistency, and overall quality of the translated subtitles. Our proprietary automated QA toolset streamlines the entire QA workflow, automating certain quality checks, and enhancing the overall efficiency of the localization process by:

- Checking the timing and synchronization of subtitles to ensure they align correctly with the spoken dialogue for a seamless viewing experience.
- Verifying that the translated subtitles meet all necessary length and character limits, so there are no issues with text overflow or cut-offs.
- In doing so, making certain that subtitle text is always the right length to be comfortably readable on-screen for the average reader.
- Ensuring consistency in terminology, style, and formatting across subtitles for a polished, professional presentation.

- As LAI's process maintains perfect alignment between source text and translation, we ensure a much deeper level of linguistic QA than can be achieved with traditional processes.
- Assessing how the subtitles handle line breaks and hyphenation, ensuring that the text always flows naturally and is easy to read.
- Performing basic linguistic checks to identify spelling, grammar, and language usage errors in the translated subtitles, especially over longer or technically complex content. They also ensure special characters, symbols, and diacritics are correctly rendered across a variety of platforms and screen sizes. Paired with our expert initial translators, this ensures you put only the most professional face forward with every video.

Where multiple speakers are onscreen, QA tools like ours also help to verify that subtitles correctly identify speakers for added clarity. QA tools help ensure that the localized subtitles are compatible with the technical requirements of different distribution platforms and playback devices, and can even be customized to make sure your localized subtitles align with your style and preferences.

**How does Generative AI fit into LAI's workflow?**

LAI is solutions-based so we're always interested in making use of best-in-class state-of-the-art tools. We have integrated best-in-class GenAI into our process and can deploy it at the request of our clients. We still include our subject-matter linguistic experts in the workflow to ensure the highest possible quality. Ask us to find out more about how GenAI can be incorporated into your project workflow and the tradeoffs involved.

LAI's Subtitle Localization System: The Results and Benefits

When you use LAI Technical Translation Services' unique subtitle localization system over traditional methods, you can look forward to:

- Higher-quality translations, as translators aren't distracted by technical, non-linguistic issues.
- Cost and time savings, as non-linguistic tasks are done efficiently and automatically by proprietary software.
- Subtitles that are automatically retimed and guaranteed to be on-screen long enough for viewers to comfortably read.
- Translations that are perfectly in sync with the original video for appealing, engaging results.
- Easy-to-read text using AI-powered natural linguistic boundaries, not arbitrary breaks.
- A simplified review and linguistic QA process, with source/target pairs better aligned.

LAI SUBTITLE LOCALIZATION WORKFLOW
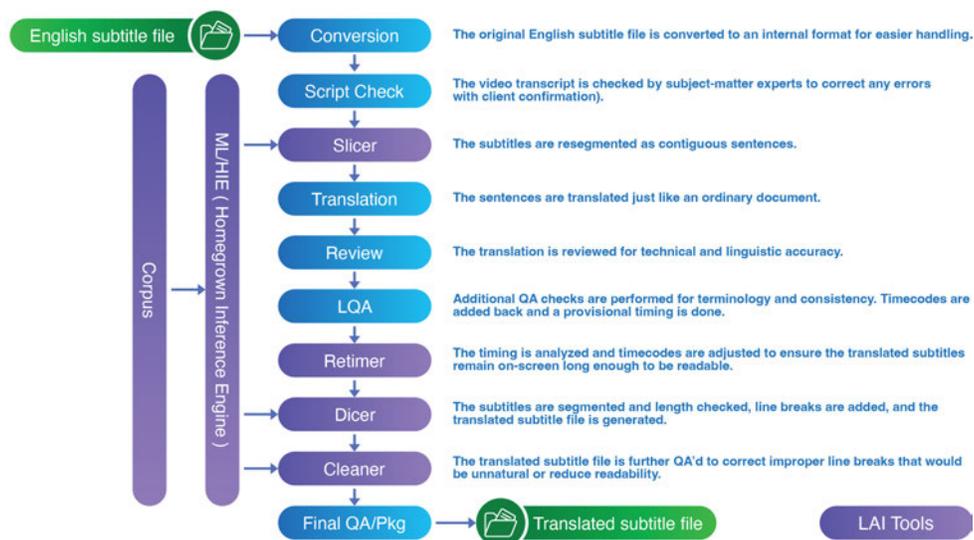
Conclusion

In this white paper, we examined how video, and the translation and localization of subtitles for webinars, training videos, and other technical content has become a powerful tool to reach a global audience.

The traditional process of subtitle translation, however, has some pain points that have knock-on impacts on the speed and cost of the project, as well as the quality of the final product. LAI Technical Translation Services is proud to have developed a world-class system with a unique approach specifically designed to address, solve, and simplify these issues- and we're waiting to use them for your next subtitle localization project!

If you're ready to revolutionize how you translate subtitles in video formats, or you're simply curious to know more, reach out to LAI today.

About LAI Technical Translation Services

At LAI, the focus is on high quality with a streamlined turnaround and the best possible technological support to power it. Alongside our game-changing subtitle localization service, we offer translation services for a wealth of highly technical industries, with a core focus on developer-oriented content for platforms, tools, and middleware companies in the entertainment, gaming, and VFX industries.

For over 30 years, LAI has delivered accurate, engaging, and developer-friendly translations of software, API specifications, and other highly technical documentation. Now we are revolutionizing the subtitle localization industry with that same precision and focus.

We take care to understand your content, leveraging our knowledge and experience for faithful, accurate reproductions no matter the destination language or its idiosyncrasies. With our exclusive modular workflow, custom tools, and automated QA processes, we help to reduce your costs and turnaround times without sacrificing quality. In fact, it's often significantly improved. LAI prides itself on consistently delivering the utmost in quality on every project- quality backed by decades of happy customers and the outstanding results we've achieved for them.

However, our most important asset remains our exceptional linguistic team of experienced subject matter experts. Our linguists all boast real industry experience as software developers and engineers, game developers, VFX and film experts, and in many other technical niches. They will expertly localize your content and craft it to speak your viewer's language. We provide expert-level translation services in a variety of languages, with English-Japanese and Japanese-English as a key focus.

If you are ready to market your unique product to a global audience with the help of sharp, expert-informed subtitle translation, LAI is here to help.

Find out how to put our exclusive Language Automation® software to work for you at www.lai-techtr.com, or reach out to us at hello@lai-techtr.com

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