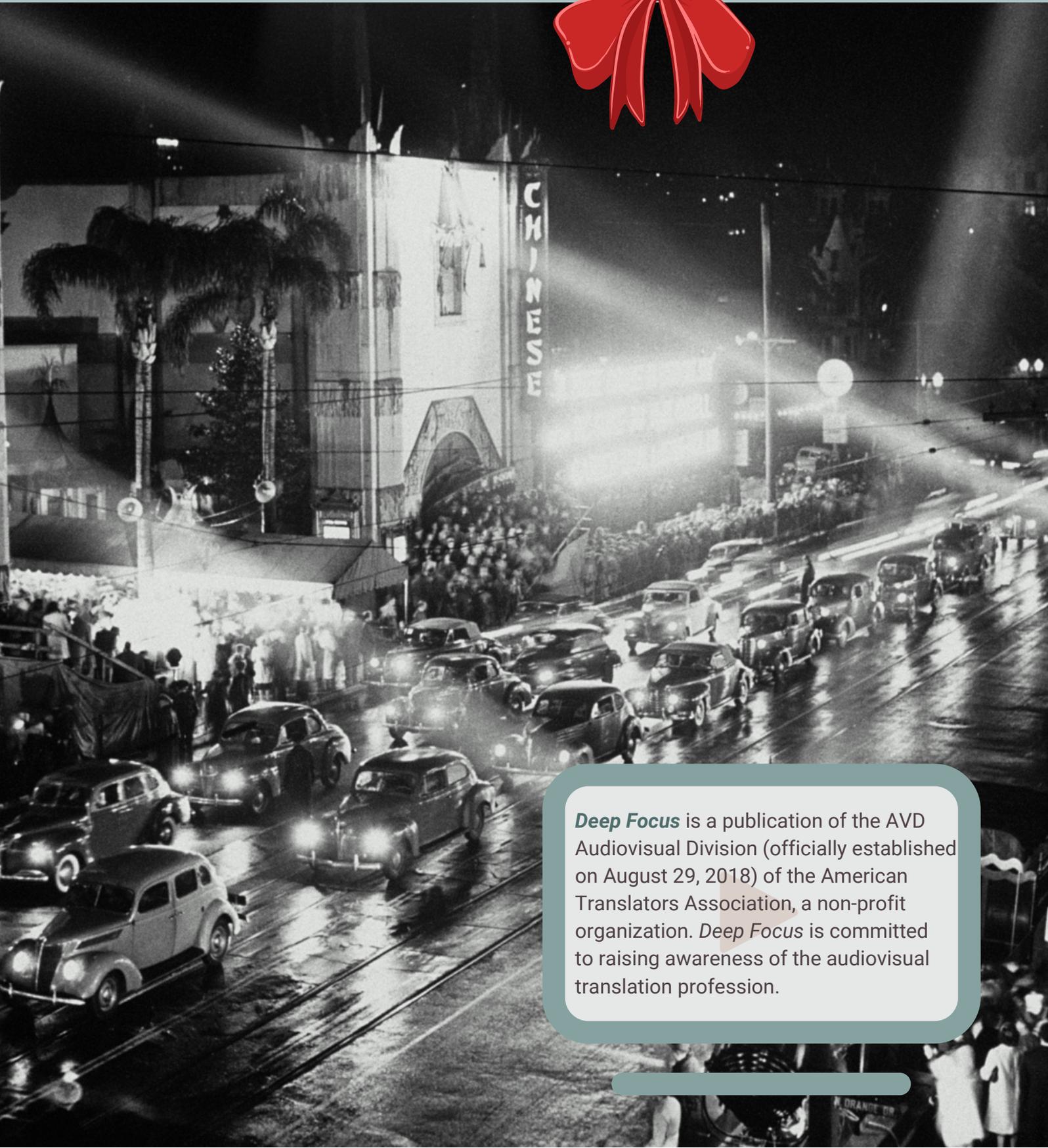


DEEP FOCUS

AVD NEWSLETTER

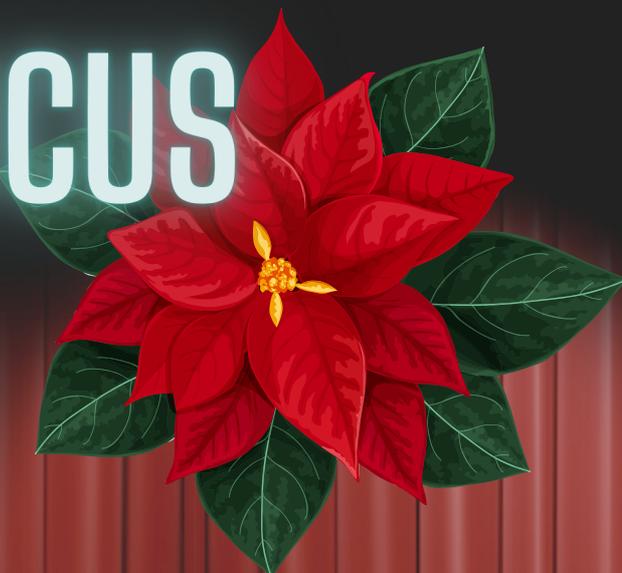


A division of the American Translators Association



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DEEP FOCUS



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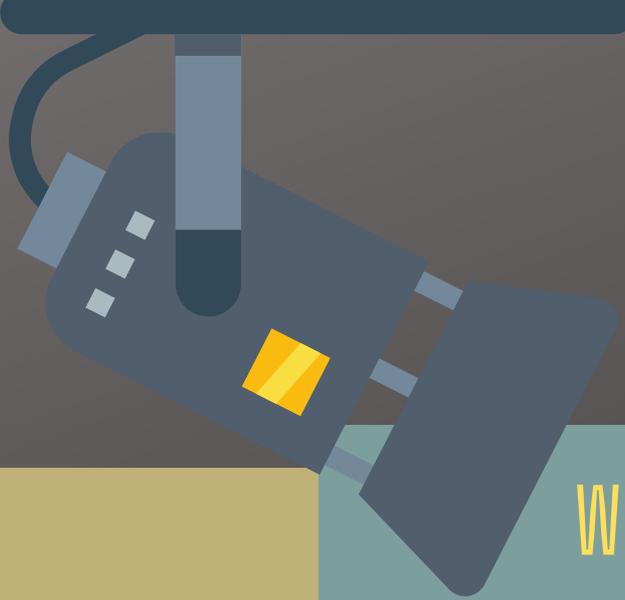
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There to Find Out?

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Eye-tracking is a window into your brain! By analyzing the movements of your eyes, we can learn how your brain processes subtitles. This paper delves into the process and its findings.

Two Major Hurdles in English
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The Squid Game outrage was mostly about inaccurately conveying uniquely Korean social relationships or cultural nuances. Let's examine two major hurdles in English-to-Korean subtitle translation using a longstanding U.S. police procedural.

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LETTER FROM THE ADMINISTRATOR

DEBORAH WEXLER

Dear AVD Members,

As we close the fifth calendar year since we founded the division, in the last December I will be writing in *Deep Focus* as your Administrator, I want to ask you to join me in celebrating the accomplishments of the teams that have made everything possible: past and present Leadership Council volunteers who have worked selflessly to raise awareness to our profession. In no particular order:

Our Publications department has released 15 newsletters, with over 60 AVT-specialized articles. Thank you, Gaby G. Meade, Lucía Hernández, Aniella Vivenzio, Daili Cruz, Aída Carrazco, and Michelle Bradley. And thank you to all the authors that submitted articles for publication.

Our Forum has moderated all internal communications between AVD members via our listserv (i.e., free screenings, jobs, referrals, AVT topics, subtitling news, etc.), helped new members get signed in, and posted reminders, invitations to events and a digest of articles that were shared on various social media platforms. Thank you, Milbia Rodríguez and María Delgado.

Our Mentoring department has paired multiple mentees with AVT-specialized mentors, many of whom are now working as full-time audiovisual translators and editors. Thank you, Britta Noack.

Our Public Relations department organized live meetups from 2018 until the pandemic and post-pandemic virtual meetups since 2020 (over 40!), extending invitations to ATA chapters and divisions, as well as international translator associations.

It has also organized the live Annual Happy Hours at ATA conferences. Thank you, Daili Cruz, Charo Welle, Flávia Fusaro, and Sophie Céneray.

And thank you to the hundreds of you who have attended them.

Our Social Media department has created and managed accounts on Facebook, Twitter, and LinkedIn, with in-depth original posts. Thank you, Ángela Bustos, Daili Cruz, Isabel Asencio, Catalina Espinoza, and Victoria Méndez.

Our Website department has kept the website relevant and up to date since its creation, adding new content, new resources and new ideas to the mix. Thank you, Mara Campbell.

Our Live Events department has conducted 16 interviews on Instagram Live with industry heavy hitters, which will now be posted on the AVD YouTube Channel. Thank you, Daniela Costa. And thank you to all our guests.

Our Professional Development department will be launching the AVD YouTube Channel in a few days. It will also house all the IGL interviews. It has also helped create several paid webinars that have been offered by the ATA. Thank you, Marie Winnick, Muriel Daou, and Fernanda Brandao-Galea. And thank you to all presenters who have recorded videos for publication.

Our Nominating Committee members, who have nominated the AVD officers throughout the years. Thank you, Aída Carrazco, Sebastian Piras, Luz Miranda, Marcela Caressa, and Micaela Novas.

All of you are the soul of this division, and none of the exemplary work, both invisible to the public and visible to the world, would be possible without your love for the profession and the passion you bring to the American Translators Association as volunteers. Thank you from the bottom of my heart for all the hard work in making the AVD so relevant! Kudos!

Sincerely,

Deborah Wexler
AVD Administrator



EDITORIAL

ANA G. GONZÁLEZ MEADE

Dear readers,

This has certainly been a busy year for most of us. As was the case with our ATA 63 Conference, which I am very grateful for, we were lucky enough to be able to go back to meeting colleagues and friends in person.

Before officially leaving 2022 behind, we have amazing AVT-related content, the latest in our content localization industry, to share with you, written by experienced freelancers and top-notch researchers.

We are always thinking of ways to strengthen our AVT community's connection and spread the knowledge of our craft, and will continue to do so in coming years.

May 2023 bring everyone happiness, good times, and rewarding experiences, both professionally and personally.

Happy holidays!

Ana Gabriela González Meade, M.A.
Deep Focus Editor



TIPS FOR STARTING YOUR CAREER IN THE AUDIOVISUAL TRANSLATION INDUSTRY

BY ALBA MARTÍNEZ

The first things that come to mind when talking about audiovisual translation are usually movies and series. The truth is that everyone wants to work on the next blockbuster movie or one of the most watched series on Netflix or HBO. But how do you get there? For me, it was difficult to find professional alternatives that would give me the experience I needed to work on more relevant projects. It is highly likely that translation agencies and dubbing studios do not trust recent graduates to translate products that are going to generate billions in revenue. Therefore it is important to know the market well and what options are out there.

In the digital world we live in, most of the products we take in on a daily basis are audiovisual (commercials, live videos, webinars, and so on).

After specializing in audiovisual translation, I started working for a education company translating webinar subtitles. The key is to start by offering services to a smaller audience. If you don't know where to start or you can't find companies that offer this type of work, you can contact your favourite streamer or youtuber to start translating subtitles or accessibility for their videos. If that person doesn't have that service, you can be the first to offer it! It's a way to create a market that adapts to the needs of the industry while gaining experience.

If you have been looking for job opportunities in the audiovisual translation sector for a long time without success, you can always try to create new opportunities by looking at the audiovisual material you take in on a daily basis that does not have translation or accessible subtitles. You can prepare a proposal and offer a small sample of your work to generate trust in the potential client and attract their attention.

There are many possibilities! You could also collaborate with institutions such as NGOs and other nonprofits where you can offer your services using platforms such as Amara, where you can subtitle TED talks to practice your subtitling skills and get visibility, dedicating the time you can to each project.

As you can see, in just a few lines I have given you several options to start your professional career without experience. I wish you luck in your new beginnings and I hope my advice helps.

Alba Martínez, is a graduate of the bachelor's in Modern Languages and Translation and master's degree in Audiovisual Translation: EN-ES Localization, Subtitling and Dubbing



at University of Alcalá (Alcalá de Henares, Spain). She started working as an audiovisual translator and is currently Project Manager for an international translation agency.

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SPEED UP YOUR SUBTITLING IN ANY PLATFORM USING AUTOHOTKEY

BY ADRIÁN BERGONZI

A Little History: How I Discovered AutoHotkey

It was a long time ago. I had started working for a new subtitling agency and received my first assignment. Every new online system takes some time to get used to. Except this one, where the shortcuts were an absolute nightmare: Enter moved to the next subtitle, and Ctrl+Enter inserted a line break. One might think I'm exaggerating, right? After all, it's just a shortcut. Well, no, we don't have a switch at the back of our head, and let's not forget that most of us work for several clients and some of them have their own subtitling platforms.

So, as this particular system did not allow me to customize the shortcuts, I did a little research on how to "change keys in Windows." In no time, I had AutoHotkey installed and had written my first two macros. What I needed was simple: Enter must execute Ctrl+Enter (to insert a line break). I also needed another key to move to the next subtitle, which could be Tab or Page Down.

So, what is AutoHotkey? In the words of its developers, it's "a free, open-source scripting language for Windows" which we can use to "define hotkeys for the mouse and keyboard, remap keys or buttons" and generate "autocorrect-like replacements."

Let's go back to our previous example and break down these two simple macros:

; Line break with Enter (instead of Control+Enter).

```
Enter::
    sendinput ^{Enter}
Return
```

; Tab moves to the next subtitle (instead of Enter)

```
Tab::
    sendinput {Enter}
Return
```

"Enter::" creates a macro on the Enter Key.

"sendinput" will send keys to the active window, where the cursor is. "Sendinput {Enter}" will press the Enter key. "Sendinput ^{Enter}" will send Ctrl+Enter. After each macro, don't forget to write "Return", which marks the end of each macro.

Beware that "sendinput enter" will actually write "enter", not hit the Enter key. Also, to add a shortcut to the Enter key, we use "Enter::", not "{Enter}:". These are two very common mistakes that can frustrate beginners.

The "^" is a modifier used for the Control key. Other modifiers are "+" (Shift), "!" (Alt), and "#" (Windows key). Modifiers can be combined: "^+a" would press Ctrl+Shift+A. Keys can also be combined to create a macro; so, "^+!PgDn::" would create a macro on Ctrl+Shift+Alt+PageDown.

The lines that start with ";" (semicolon) are comments. You can write anything you want in a comment to help you remember what a macro does.

Rest assured we are not hacking or tampering with any online system. Macros reside and get executed on our computer.

The Tutorial

To learn how to install, create and execute scripts, I suggest you read the tutorial at <https://www.autohotkey.com/docs/Tutorial.htm>, specifically part 1, "The Basics."

To get started, download and install AHK 1.1 (version 2 is still in beta). To create a new file, right-click on any folder and choose New > AutoHotkey Script. This will create a file that can be opened with any text editor, such as Notepad++. To execute the file, just double-click on it. Remember that one .ahk file can contain many macros.

Before attempting to write your own scripts, I strongly suggest you read the whole tutorial, as it will give you an idea of what AutoHotkey can do.

Using the Same Shortcuts Everywhere

Shall we adapt to the subtitling system or vice versa? If the system adapts to us, we'll be more productive. In my case, I have designed a system of shortcuts that works for me in my favorite program (EZTitles), but nowadays most companies have their online subtitling systems. Some online platforms such as Ooona allow users to customize shortcuts, but when you can't, we can use macros.

With AutoHotkey (AHK from now on), I can use the same keys for every company I work for. My play key is always "5" (numpad 5). It's "5" because it's in the center of the numeric keypad and because the key has a little ridge. "4" and "6" are one frame backward and forward. "1" and "3" jump back and forward (how many seconds depends on the system). "7" and "9" are the short jump back and forward. "2" and "8" speed down or up. "0" and "period" change the in-cue and out-cue of a subtitle. If you use a laptop without a numpad, you can always get a USB external numeric keypad.

So, let's say a particular system has a shortcut to move one second forward with F2, but we need this to be on numpad 9, because it's the key we are used to:

; One second forward

```
Numpad9::
    sendinput {F2}
Return
```

Now we need a shortcut to move three seconds forward with numpad 3, but the system doesn't have a long jump forward shortcut to reassign. We can just create a macro and hit the short jump forward three times.

; Three seconds forward

```
Numpad3::
    sendinput {F2}{F2}{F2}
Return
```

If there's a number I don't use, I turn it off. This is to avoid hitting it by accident and inserting digits into the text inadvertently. So, if a certain platform does not have a "Play 2X" function, I turn off the numpad 8 key. This creates an empty macro that does absolutely nothing.

```
Numpad8::
Return
```

Macros for Specific Applications

It wouldn't be wise to lose the ability to enter numbers with the numeric keypad when we're using Excel or any other application. So, to restrict our macros to work inside Google Chrome, we can use the following macro. Microsoft Edge users should use "msedge.exe" instead of "chrome.exe".

```
#IfWinActive ahk_exe chrome.exe
```

; Put all your macros here.

```
#IfWinActive
```

Some Practical Examples

Up until now, we have only reassigned keys. Let's see other examples that can come in handy.

Suppose that you're QCing a subtitle file and the translator used lowercase for forced narratives. But the style guide for this client requires all FNs to be in UPPERCASE. This happened to a friend.

What could we do? Retype all the FNs? Of course not. Creating a macro that converts a subtitle to uppercase is as easy as ABC.

; Uppercase

```
F6::
    clipboardBackup := ClipboardAll
    Clipboard := ""
    SendInput ^a
    SendInput ^c
    ClipWait
    StringUpper Clipboard, Clipboard
    SendInput %Clipboard%
    Clipboard := clipboardBackup
    clipboardBackup := ""
return
```

In this example, the macro is assigned to F6. First, we create a backup of the contents of the clipboard. We hit Ctrl+A (which selects all the text in the subtitle), Ctrl+C (which copies the text to the clipboard), and then convert the clipboard content to uppercase with the StringUpper command. Then we insert the new clipboard with SendInput and restore the previous clipboard.

Converting to “Sentence case” is a bit more complex as AHK has no function to do this (it has StringLower, but we want sentences to start with uppercase). What we do is convert to lowercase and then capitalize the first letter of every sentence using a regular expression. Explaining regular expressions goes beyond the scope of this article, so here’s the macro:

```
; Sentence case
F7::
  clipboardBackup := ClipboardAll
  Clipboard := ""
  SendInput ^a
  SendInput ^c
  ClipWait
  StringLower Clipboard, Clipboard
  Clipboard := RegExReplace(Clipboard, "(((^[[:?]]+\s+))[a-z]) i | i)", "$u1")
  SendInput %Clipboard%
  Clipboard := clipboardBackup
  clipboardBackup := ""
return
```

Changing three periods to an ellipsis as you type, as is required by Netflix guidelines, is the easiest macro. It just requires one line:

```
:*?.....
```

Similarly, if François appears all the time in your show and you don’t have a Ç key, just type “francois” and let AHK replace it automatically with this macro:

```
::francois::François
```

Macros for SDH

For SDH, I found macros a must. I refuse to keep typing [Luis Fernando] and [Soraya] all the time, especially if a show has 150 episodes. In my case, I use a second keyboard just for macros.

It’s a cheap generic programmable keyboard (about 50 USD), designed to be used with a cash register. You don’t need an expensive Elgato Stream Deck, which is beautiful and looks cool, but is somewhat costly. There are several POS programmable keyboards, featuring from 50 to 84 keys, and probably more.

But you don’t need a second keyboard if you’re just starting out with macros. I’ll show you how you can program a menu to enter characters’ names just with two keys. One key brings up the menu, and another key types the character’s name. You could also create macros to insert common SDH tags, such as [grunts] or [gasps].

For this example, we’ll create a menu with three items. The first menu option will type “María” when you press number 1 (see macro below). “MenuCharacters” is the name of the menu we are creating. “&1” assigns 1 to that menu item, so that “María” will get inserted when you hit “1”. “InsertCharacterName” is the name of the function that gets executed.

```
; Add menu items (with "Menu... Add")
Menu, MenuCharacters, Add, &1 María, InsertCharacterName
Menu, MenuCharacters, Add, &2 Luis Fernando, InsertCharacterName
Menu, MenuCharacters, Add, &3 Soraya, InsertCharacterName
```

Now, we assign a shortcut to bring up the menu. In this case, F8. “1200” and “600” are the menu coordinates (change them based on your needs). We can tell AHK to calculate the center of the screen, but I’m keeping it as simple as possible here. “MenuCharacters” must be the same name as before.

```
; Define shortcut to show menu (with "Menu... Show")
F8::
  Menu, MenuCharacters, Show, 1200, 600
Return
```

The last step is to create the function that will get called when a menu item is activated. In our example, it must be “InsertCharacterName”, as before. This function will type the character name between square brackets using “Sendinput”.

The previously-defined string to be inserted when number 1 is pressed was "&1 María", so we use the function SubStr to omit the first three characters so that the text starts on the M.

```
; Function called from each menu item
InsertCharacterName(CharacterName)
{
    SendInput, % "[" . SubStr(CharacterName,4) . "]" %
}

```

And this is the menu we've created. Just press F8, then 1, 2, or 3, and you'll get [María], [Luis Fernando], or [Soraya] in your subtitles. This will save you time and help you avoid typos such as [Lius Ferdinando}.



Controlling Video from Microsoft Word

A colleague once had this issue: She was proofreading a dubbing script in Microsoft Word to, and the video was on VLC. How could she control the video without leaving Word? The mouse was out of the question. You never touch the mouse. The mouse is lava. Hitting Alt+Tab a million times would be crazy, too. So, who you gonna call? The macros.

We could program a macro that would hit Alt+Tab, go to the player, press Spacebar in VLC (play), and hit Alt+Tab again to return to Word. This would work, but there's a better way. Just send the command to the video player with "ControlSend".

```
#IfWinActive ahk_exe winword.exe

; Send Space (Play/Pause) to VLC
F12::
    ControlSend, , {Space}, ahk_exe vlc.exe
Return

; Send Shift+Left to VLC
F11::
    ControlSend, , +{Left}, ahk_exe vlc.exe
Return

#IfWinActive

```

You can already guess what the previous two macros do. The first one sends the Space key to VLC when pressing F12 (so, it pauses and plays the video). The second one sends Shift+Left to VLC when pressing F11 (it jumps back the video three seconds). Both macros only work from Microsoft Word as they are between the "#IfWinActive" lines.

Why Use Macros?

What action needs a macro? If you find yourself hitting the same key or set of keys several times, that could be a macro.

Let's say you have a subtitle that ends right where the audio ends, and you want to extend it exactly 12 frames (half a second for a 24-fps video), are you going to hit your shortcut 12 times to move the out-cue? No! You could create a macro.

```
+F12::
    Loop, 12
    {
        Sendinput +{NumpadAdd}
    }
Return

```

In this example, the macro is assigned to Shift+F12 ("F12::"). The "Loop" command repeats an action, in this case, 12 times. The curly brackets are optional in this case, as there is only one line between them. This macro hits "Shift Numpad Plus" (with "+{NumpadAdd}"), which is the shortcut in EZTitles to move the out-cue one frame to the right. Of course, if you use a different shortcut, you should replace this line with your own.

Many More Things to Do

This is all the space we have for now. There are some other easy macros you can try to create yourself, for example, adding dialogue hyphens to both lines, or adding music symbols to the start and end of a subtitle (and even italicizing the text in between the music symbols).

The next time you start using a new subtitling system, instead of learning new shortcuts, you could use 30 minutes to prepare a new AHK file. It will save you a lot of time later.

Other macros will require doing some actual programming. Let's say your system doesn't have two basic functions such as "move word down/up", which are used to change line breaks swiftly. This is doable, but beyond the extent of this introductory article. I hope you can start using macros soon and that they save you as much time as they do for me.

Adrián Bergonzi is an Argentine

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and

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He has

nine years

of experience

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and software

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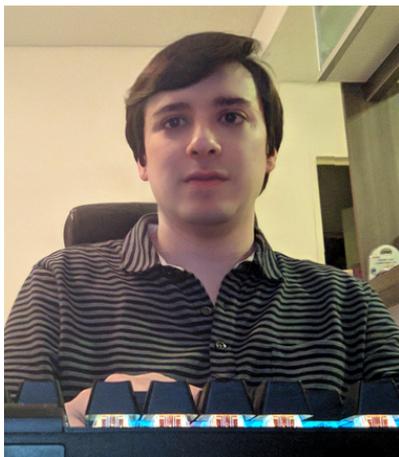
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translated and proofread many films and series

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SELF-DESCRIPTION VS. SELF-DESCRIPTION

BY DR. JOEL SNYDER

It's a complex issue. I work with professional audio description techniques based on four fundamentals that I developed many years ago—one of them involves editing from what you see, selecting what you will describe based on the answer to a question that the describer poses to him or herself: What is most critical to an understanding (he points to his head) and an appreciation (his hand is on his heart) of the image?

I think that this applies to self-description in a meeting as well. Yes, for a person who has low vision, having descriptions of physical characteristics can help them recall individuals and identify them on a second meeting. It provides information about the individual that non-blind people take in visually, and when done by everyone at a meeting or conference, gives the blind or visually impaired people present a sense of the diversity or lack of diversity of those speaking, on a panel or in the room generally.

On the other hand, some blind or visually impaired people prefer not to have self-descriptions. I have had this discussion with a wide range of people who are blind—some feel uncomfortable formulating a self-description/that it is awkward or unfair to expect people to describe themselves, and that it takes time away from more meaningful information that can be exchanged. It can take up considerable time if twenty people each take a minute to describe themselves.

Further, an individual providing a self-description is creating a subjective message, and to what end?

With professional description, we try to discern the most critical images being conveyed—developing a sense for what the focus is in a play, a film, in visual art and so on. But when a person self-describes, we choose based on what? A sighted person can access a wide range of information—but what’s most important to the meeting or the issue at hand?

Do we describe gender and age and skin color but not physical fitness, weight, or skin condition? In one way of thinking, by doing so we are elevating race, gender, and age, and ignoring what sighted folks often notice such as physical attractiveness, unusual or unconventional surroundings or clothing, blemishes, weight, or things that might be paramount to a sighted user and pointedly avoided in someone providing self-description.

So self-description often cherry-picks what will be described and perhaps creates a false sense of inclusion. If we are told someone is fifty, is that a visual description if they happen to look thirty? What if they look eighty? Is the color of one’s hair important or only if it is green or purple? Similarly, should it be required that a meeting participant disclose their religion if it is apparent from visual indicators like a cross necklace or a Star of David?

What about race? And what language is most appropriate? Are we pressuring people to disclose their race if it is not visually apparent? If a person self-identifies as African-American, is that information actually part of what a sighted person has access to? It may be important to the individual but is it what’s apparent to a sighted person? How can we know a person’s race? Is a White South African who becomes a citizen of the U.S. an African-American? And it’s perfectly acceptable to choose not to include an aspect of self-description—but at the same time, if skin color is not referenced by all, does “White” end up being the default. Is that appropriate?

Professional audio describers describe – we don’t explain.

Now—having said all that, it may still be decided that all people in a meeting should provide a self-description. If so, here are a few suggestions, some of which have been developed/recommended by audio describers in the U.K. (Vocal Eyes: <https://vocaleyes.co.uk/services/resources/digital-accessibility-and-inclusion/self-description-for-inclusive-meetings/>):

- Consider it in advance, if possible – have it written down already and stick to what you have written. People who self-describe off the cuff tend to take their lead (in terms of which aspects they describe) from the people before them. This can often result in successive people’s descriptions getting longer and longer. Be concise and brief in your self-description—a good rule of thumb is to restrict yourself to three key elements and one or two sentences.
- The amount of detail you describe yourself with in part depends on how many people are in the meeting. A blind person will get information overload if 35 people all go into huge detail about their hair, skin, height, clothes, and Zoom background.
- You might refer to your hair color, length, and style. Facial hair, such as a moustache or beard can be a useful visual marker for a blind or visually impaired person.
- On a video call or online conference, your height is not generally visible, so how relevant is that? But then knowing that someone is very tall can be useful for a blind or visually impaired person at an in-person conference.
- Clothes and accessories—what you wear is a part of your identity.

Again, don't over-describe or even feel it necessary to refer to your clothes at all, but a patterned shirt or top, a brightly-colored scarf or striking jewelry can be a useful visual marker for a blind or visually impaired person. A particularly loud shirt may become a running joke at a meeting: make sure that the blind or visually impaired person is in on it from the beginning.

Finally, consider the use of humor—please indulge me while I share my own self-description:

"I am a middle-aged White man with a receding hairline – oh, alright, it has receded to the rear of my head leaving a fringe of gray stretching around to my ears and my white and gray full beard ... which covers a multitude of chins."

Dr. Joel Snyder is known internationally as one of the world's first "audio describers," a pioneer in the field of Audio Description. Since 1981, he has introduced audio description techniques in over 40 states and 64 countries and has made thousands of live events, media projects and museums accessible. In 2014, the American Council of the Blind published Dr. Snyder's book, *The Visual Made Verbal – A Comprehensive Training Manual and Guide to the History and Applications of Audio Description*.



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EYE-TRACKING RESEARCH ON SUBTITLING - WHAT DO WE KNOW AND WHAT ELSE IS THERE TO FIND OUT?

BY AGNIESZKA SZARKOWSKA AND ŁUKASZ DUTKA

How Can We Learn More About How You Watch Subtitles?

As researchers, we're always trying to learn more. When it comes to subtitling or captioning (we'll be talking about subtitles here, but it all applies to captions as well), what we can do is collect subtitles and analyze them. We can calculate how many words there are, how many characters are displayed per second or how cultural references are translated from one language to another.

And when we want to learn more about how people watch subtitled content and whether subtitles are fit for purpose, we can meet with a group of viewers and conduct interviews or send out an online questionnaire. While all of this can be useful, there are some challenges. Some people are not very keen on filling out questionnaires ("Another questionnaire?"). And when asked about subtitles, viewers can be biased in their opinions or misrepresent their experience (because they don't remember it well). We could ask you questions immediately after you have seen a subtitle, but imagine that you're watching an episode of your favorite TV series, and we're pausing it every few seconds to

ask you whether you understood or if you had enough time to read all of the words. You would probably be furious at us for ruining your viewing experience. And it wouldn't be a good representation of how you normally watch content anyway.

Our aim is to collect information that is as objective as possible and gives us insight into how you watch subtitles as a viewer and how your brain processes the video, the audio and the text. In the ideal world, we would love to have a peek into your brain as you watch subtitled content. (But if you're like us, you're probably not that excited at the prospect of having your skull opened, are you?). So how can we get insight into what is happening in your brain as you binge-watch another series?

Luckily, we now have other, less invasive ways of looking into your brain with technologies such as EEG (putting electrodes to your skin to measure the electrical activity of your brain). And then there's our favorite toy: eye tracking. We'll focus on this one today.

A Window into the Brain

Eye tracking doesn't actually let us look into your brain. It allows us to record your eye movements so that we know how your eyes move and which areas attract your attention. Perhaps you're wondering: but wasn't our objective to look into the brain? Have you heard the saying that eyes are a window to the soul? While we don't know about the soul, as researchers, we certainly believe that the eyes are a window to the brain. In fancy research terms, we call it the eye-mind hypothesis. We assume that when your eyes are looking at something, your brain is processing it more or less at the same time. And if your eyes stay on a certain area longer, this means your brain is taking longer to process it - possibly because it's more difficult (or more interesting!). This way, by analyzing the movements of your eyes, we can learn more about how your brain processes subtitles (and your skull can remain intact).



FIG. 1. AN EYELINK DESKTOP EYETRACKER WITH A PC SET-UP PHOTO: AGNIESZKA SZARKOWSKA.

So, what we do is we use an eye tracker (see Fig. 1), which is essentially an advanced infrared camera that records your eye movements. We usually put it on a desk in front of you as you watch some content on a screen (there is also a head-mounted version but we prefer not to ruin your hair). Based on this recording, we know which areas attracted your attention and how your eyes moved from one area to another.

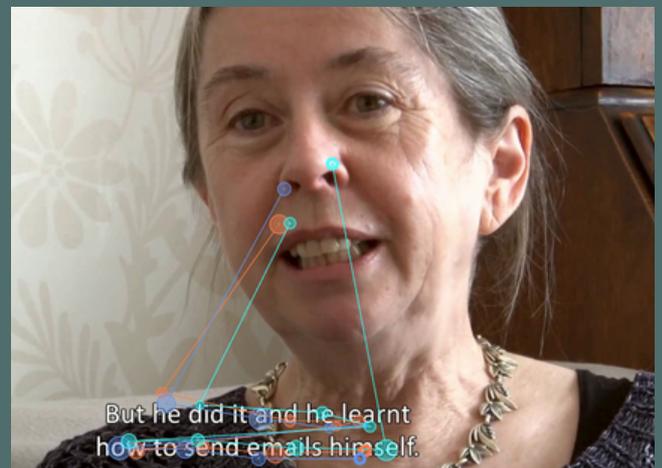


FIG. 2. A SCANPATH OF VIEWERS WATCHING A SUBTITLED VIDEO ("JOINING THE DOTS" DIRECTED BY PABLO ROMERO FRESCO) PHOTO: AGNIESZKA SZARKOWSKA, AUTHORIZED TO USE BY PABLO ROMERO-FRESCO.

The picture above illustrates how three viewers looked at this shot and how they read the accompanying subtitle. Each viewer is represented by a different colour. Each little dot that you can see on the images corresponds to

a fixation, that is, a moment when a viewer fixates (stays relatively still) on an area. In other words, eyes move to this place and stay there for a while. Then the eyes move somewhere else. This movement, shown here by a continuous line, is called a saccade. There's a fixation, a saccade and a new fixation. So now you know how people watch subtitled videos.

Eye-Tracking Can Help Us Verify Long-Standing Assumptions About Subtitling

Eye-tracking research into subtitling goes back to the early 1980s, when Gery d'Ydewalle, Professor of Psychology, and his research team in Belgium set off to study how viewers engage with subtitled videos. Their research set the stage for later studies and some of their findings remain valid today. So, what do eye-tracking studies tell us about the reading of subtitles?

Automatic Reading Behavior

Subtitles attract viewers' attention, regardless of whether viewers depend on them for understanding or not. So as a viewer you are very likely to be reading subtitles even if you can understand the language of the soundtrack or if you don't know the language of the subtitles! To people who are accustomed to subtitles, their reading is "automatic" and "effortless", as stated by prof. D'Ydewalle, provided that the subtitles are good quality of course.

FIG. 3. SUBTITLES ARE GREAT GAZE ATTRACTORS. BY QUICKLY APPEARING AND DISAPPEARING ON SCREEN, THEY ATTRACT VIEWERS' ATTENTION. COMPARE THE SCREENSHOT ON TOP WITH A HEATMAP VISUALIZATION BELOW IN THE FIRST PICTURE SHOWING A NEWS ANCHOR IN A TV NEWS BULLETIN. VIEWERS' ATTENTION, VISUALIZED AS RED BLOBS (THE REDDER THE AREA, THE MORE ATTENTION IT ATTRACTED), IS MOSTLY ON HER FACE. HOWEVER, THE MOMENT A SUBTITLE APPEARS (THE SCREENSHOT BELOW), VIEWERS SHIFT THEIR ATTENTION TO READ IT, AT THE COST OF LOOKING AT THE PRESENTER: IMAGES: ROYALTY-FREE STOCK PHOTOS FROM CANVA AND GRAPHIC ELEMENTS BY CANVA.



What Attracts Your Attention the Most?

Perhaps you noticed it's human faces that attract a lot of attention. As human beings, we're very much interested in other humans and especially their faces. It's interesting that people who can hear well tend to look at the eyes, while if you have hearing loss, you will tend to look more at the mouth. That's because looking at lip movements might help you understand speech better.

Thanks to research by Prof. d'Ydewalle and his team, we know that subtitles are a bit like faces and they attract a lot of attention, too. That's not surprising because we need subtitles to understand the scene. But do you know that your eyes will try to read subtitles even when you don't need to or if they are in a language that you don't understand?

For instance, we don't understand Chinese but a subtitle in Chinese appears, our eyes would move to this area, trying to read this subtitle. You have to consciously decide to start ignoring subtitles. That's because when subtitles appear and disappear, all this creates something that looks like movement on screen. And any sort of movement is something that attracts our eyes a lot.

Not All Words Are Read in the Same Way

Despite what many people may think, when reading subtitles, viewers do not focus on all words in the same way (see Fig. 4). In fact, they don't even read every single word in the subtitle: about 30% words are skipped during reading. Most of them are short, grammatical words such as articles, pronouns, prepositions or conjunctions.

What viewers tend to focus on more are long words, especially those that are not very common (linguists call them "low-frequency words"). What does it mean for you as a subtitler? If you have long, rare words in the video you are translating, make sure you give viewers enough time to read them, as it is very likely that people will focus on these words and will gaze at them longer than usual.



FIG. 4. HEATMAPS SHOWING VIEWERS LOOKING AT DIFFERENT WORDS IN THE SUBTITLES. NOTE THAT IN THIS SUBTITLE THE WORDS SUCH AS "DUGONGS" AND "HERBIVORES" ARE MUCH MORE LIKELY TO ATTRACT VIEWERS' ATTENTION THAN MORE COMMON WORDS, SUCH AS "IN", "THE" OR "SEA". IMAGES: ROYALTY-FREE STOCK PHOTOS FROM CANVA AND GRAPHIC ELEMENTS BY CANVA.

Watching or Reading?

The moment a subtitle appears, it attracts your attention. Usually, you read it in a number of fixations depending on how many words there are in the subtitle. Once you have finished reading, you go back to the center of the screen, exploring the images (see Fig. 2). And then another subtitle appears, and your eyes move again to this subtitle, and you read it, and go back to looking at the images. In other words, you switch from the images to the subtitle and then back to the images.

Now, if there are consecutive subtitles, one after another, without longer gaps in between, and all these subtitles have high reading speeds, once you have read one subtitle, you might have very little or no time left to look at the images because another subtitle appears. In such a case, a lot of your attention will be on subtitles, and you might miss what's happening in the images (see Fig. 5).

When this happens, instead of watching the film, you're actually just reading. And while reading is great, if you just wanted to read, you would probably sit down with a book in your lap, right? And then, in the worst-case scenario, if reading speeds are very high, you might not have enough time to fully read subtitles. Before you get to fixate on the last words in the current subtitle, it will disappear, substituted by a new subtitle. In such a case, you will start missing bits of dialogue, you might struggle to understand what's going on, or you'll be confused. Of course, you can pause the video to reread the subtitle, or you can rewind the video if you missed something, and you can watch the scene again

(unless you're in the cinema). But this is not a comfortable viewing experience, so at some point you will probably just quit watching.

Reading Speed

A great deal of eye-tracking research on subtitling was done to find the impact of subtitle speed on viewers. Searching for the ideal reading speed to be included in subtitling guidelines is like looking for the Holy Grail. Reading speed depends on so many factors that it's not really possible to say what the best reading speed is (but if you really want to know, some recent research led by Prof. Jan-Louis Kruger in Australia has shown that 28 cps is way too fast). The factors that affect the way we read subtitles include the complexity of the scene (how much is going on visually?), how fast the characters are talking, what they are talking about (rocket science or just chit chat?), what words they are using (high or low frequency?), whether we understand the language of the soundtrack, and so much more.

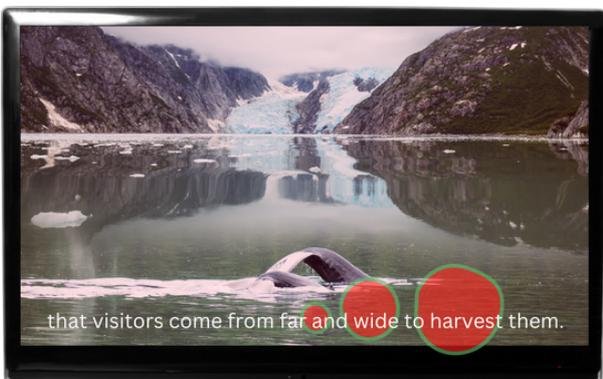


FIG. 5. WHEN SUBTITLE SPEED IS TOO HIGH, VIEWERS MAY SPEND A LOT OF TIME READING THE SUBTITLE AND AS A RESULT THEY MAY NOT HAVE ENOUGH TIME TO FOLLOW THE IMAGE. IMAGES: ROYALTY-FREE STOCK PHOTOS FROM CANVA AND GRAPHIC ELEMENTS BY CANVA.

How Much Time Do Viewers Spend on Reading Subtitles vs. Watching The Images?

Thanks to eye-tracking research we know that the higher the subtitle speed, the more time viewers spend gazing at subtitles. This typically ranges from about a third to about half of the time when the subtitle is on screen. Why does it matter? As subtitles are never viewed on their own, but are always shown together with a video, we subtitlers need to allow viewers sufficient time to read the text and follow the images.

Shot Changes

When you start learning subtitling, you are taught one of the most fundamental rules related to timing subtitles: they should not straddle shot changes. One of the reasons often given to explain this rule is when a subtitle crosses a shot change, viewers will go back with their gaze to re-read this subtitle. Having tested this assumption with eye tracking a few years ago, however, we weren't able to confirm it. In the study, we showed viewers clips with subtitles which straddled shot changes for at least 20 frames on each side of the shot change. We found that the vast majority of viewers simply continued reading the subtitles or gazing at the on-screen action, and they in fact did not return with their eyes to re-read the subtitles. Yet, this is not to say that subtitles can now cross shot changes in every possible way. Personally, viewers find the flickering effect - when subtitles are displayed over a shot change for just a few frames - very irritating. But we have no hard research-based evidence to support it.

Subtitle Display Mode

Testing live subtitles displayed in the scrolling mode, Prof. Pablo Romero-Fresco noted that scrolling subtitles are much more difficult to read than subtitles displayed in blocks, as words appear and disappear erratically. He metaphorically compared the subtitle reading process to walking on quicksand.

The conclusion from his study was that subtitles should be displayed in blocks (as is the case with pre-recorded subtitling) rather than in the scrolling/roll-up mode. However, block display results in a larger delay, which is problematic in live subtitling, so it is unlikely that broadcasters will decide to change the scrolling display any time soon.

How Subtitlers Work

Last but not least, thanks to eye-tracking research, we have also been able to study differences between how professionals and trainee subtitlers work and use subtitling software. For instance, novices had more rounds of spotting-translating-revision and they relied much more on the mouse. They also tended to watch the entire video first, before proceeding to subtitling. Professionals, on the other hand, used keyboard shortcuts much more (probably with less wrist pain!) and they completed the task faster than novices.

What's Next?

Having reached the end of this article, you can see that eye tracking has helped us better understand how we engage with subtitled content (without having to cut viewers' skulls). But this is just the beginning! There are plenty of other questions that remain unanswered. If you have any ideas on what else should be studied with eye tracking when it comes to subtitling, don't hesitate to drop us a line!

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He's one of the founders of AVT Masterclass, a director of the Global Alliance of Speech-to-Text Captioning, and a member of the Management Board of Dostepni.eu, an accessibility services provider. He's experienced in interlingual subtitling, subtitle template creation, postproduction captioning, live captioning, theatre surtitling and live events accessibility.

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TWO MAJOR HURDLES IN ENGLISH TO KOREAN SUBTITLING

BY ELENA CHANG

A Korean subtitler would have no problem translating the French sentence "On peut se tutoyer?" into Korean because both languages make clear distinctions between honorific (존댓말) and intimate styles (반말).

This difference is largely visible in verb endings.
 French: On peut se tutoyer?
 Korean: 반말 써도 되요? or 말 놓아도 되나(요)?
 English back translation of the Korean: Mind if I use intimate verb endings?

Stefan Huyghe's article (<https://multilingual.com/on-peut-se-tutoyer-the-impossible-task-of-conveying-complex-concepts-in-limited-space/>) reminds me of my recent struggle providing Korean subtitles for a well-known U.S. police procedural. Admittedly, at first I was excited to receive a higher rate than the industry standard.

But I completed only three episodes of the five initially discussed because it eventually dawned on me that my time and effort were inadequately compensated. Here's how I reached this conclusion.

Thankfully, English templates were provided. However, turning those English captions into Korean subtitles turned out to be way more complicated than I had expected due to the following two major issues.

First, had I been providing subtitles for the series since its beginning, I would have been familiar with the relationships between the principal characters, the scores of detectives, and other law enforcement personnel. I could have precisely expressed subtle but palpable tonal shifts depending on the degree of formality amongst them in a given setting. Korean people have a highly developed sense of hierarchy, which is vividly reflected in their language. A translator cannot just randomly select casual or formal tones when converting dialogue into Korean.

The crucial decision I had to make was what tone and verb endings to use between two principal characters whose police careers began about the same time, but now one is the other's boss.

Though they are colleagues and get along well, a subordinate is not supposed to sound intimate in a formal setting, especially when other officers are present, as they often are.

Beyond that, when a district attorney or medical examiner joins the group, translation is further complicated because in Korea, prosecutors or doctors are ranked a cut above "street cops", regardless of age. Now the real headache: said prosecutor was once a cop himself, and part of this team! How does one convey all this in subtitles? "Colleagues" are thought to be equal or even chummy, when in actuality they're different strata of a social hierarchy. Trying to have these labyrinthine relationships properly presented for a Korean audience became, yes, tear-your-hair-out agony. After spending way too much time (and having my hourly rate plunging below minimum wage) on three episodes (123 minutes total) to tackle this near-impossible task, I had to beg off the remaining two episodes even though I would've enjoyed watching them very much!

Secondly, fundamental grammatical differences between English and Korean make it impossible to translate either word for word or phrase for phrase as sometimes works between English and another European language.

As in English, Korean sentences do begin with a subject; however, unlike English, the verb comes at the very end with everything else crammed in between! Thus, long, run-on sentences—imagine something like an expert witness's long-winded testimony or a Shakespearean monologue—spanning several subtitles must be translated as a whole first, and then carefully divided to fit each subtitle within given character limits. This can be seen in the example below. Such complication makes English to Korean subtitling even more time-consuming, further reducing my rate.

English	Korean	English Back Translation
627	627	627
00:39:22,047 --> 00:39:24,716	00:39:22,047 --> 00:39:24,716	00:39:22,047 --> 00:39:24,716
Having heard testimony from all relevant parties	모든 관련 당사자의 증언을 듣고	Having heard testimony from all relevant parties
628	628	628
00:39:24,800 --> 00:39:27,010	00:39:24,800 --> 00:39:27,010	00:39:24,800 --> 00:39:27,010
and reviewed the psychiatric reports submitted	피고인 측과 검찰 측이 제출한	submitted by the defense and the prosecution,
629	629	629
00:39:27,094 --> 00:39:29,388	00:39:27,094 --> 00:39:29,388	00:39:27,094 --> 00:39:29,388
by the defense and the prosecution,	정신과 보고서를 검토한 결과	and [having] reviewed the psychiatric reports
630	630	630
00:39:29,471 --> 00:39:32,850	00:39:29,471 --> 00:39:32,850	00:39:29,471 --> 00:39:32,850
it is the ruling of this court that the defendant, Henry Mesner,	헨리 메스너 피고인은 자신을 변호할 수 있고	the defendant, Henry Mesner, is capable of participating in his own defense
631	631	631
00:39:32,933 --> 00:39:37,187	00:39:32,933 --> 00:39:37,187	00:39:32,933 --> 00:39:37,187
is capable of participating in his own defense and competent to stand trial.	재판을 받을 능력도 있다고 판결하는 바입니다	and competent to stand trial, which is the ruling of this court.

Overall, I am quite proud of my Korean subtitles for those three episodes. Now the stories and characters can be understood and enjoyed by Korean viewers in the same way their English-speaking counterparts do.

I love audiovisual translation, but I cannot allow my love of the medium to result in professional exploitation. Fortunately, I have other types of work to earn a living. For the sake of our profession, however, this shameless exploitation must cease. Otherwise, the capable and competent will abandon this trade for greener pastures. Who will be the ultimate losers? Not merely the audience but the filmmakers and content creators whose work is marred and butchered because bean counters are hell-bent on saving a few pennies. And all so that media bosses can buy a bigger yacht, or another mansion.

Los Angeles-based Korean linguist & ATA English to Korean Certification Exam grader **Elena Chang**

provides translation, interpreting, voiceover, and copywriting services, specializing in entertainment industry needs such as dialect coaching/consulting, script translation, lip-sync dubbing and subtitling. Her recent credits include: *CPI Live: Defining the Market & Assessing Competition Dynamics in the Digital Platform Industry (2022)*, *Best Fiends* animation, *The Courier*, *Greenland*, *Adopt a Highway*, *Clemency*, *UglyDolls*, *The Magnificent Seven*, *Little Women*, *Olympus Has Fallen*, and *Life in a Day*.



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INTERNATIONAL CONFERENCE ON ACCESSIBLE INTERSEMIOTIC TRANSLATION (ICAIT 2022): A REVIEW

PAULA IGAREDA

COVID-19 has taken many things away from us and one of them was the human side of face-to-face meetings at events such as congresses, conferences, and seminars, where academia and industry join hands and work together toward a common goal. Now that the most serious part of the storm seems to have passed, I was lucky enough to attend the International Conference on Accessible Intersemiotic Translation (ICAIT) as a speaker, together with my colleague Verónica Arnáiz-Uzquiza. The conference was held in the city of Parma, Italy, on March 31st and April 1st.

Audiovisual translation has many positive things to offer, one of them being that despite the situation we have experienced over the last two years, the sector has weathered the storm and has (almost always) come out on top, thanks to the fact that technology allows us to continue our work. Despite this success amid chaos, when academics, professionals and young researchers want to share their work, the pandemic has forced us to do so from the remoteness of our homes. While it's true that in two years I have had the opportunity to travel to places I would never have been able to go physically and enjoy conferences on the other side of the planet,

it was about time that people saw each other's faces, even if only behind a mask and enjoyed the human side that can promote interdisciplinary collaboration between researchers working in the same field.

ICAIT starts from the basic recognition that access to media and cultural content is a right for all citizens and defends new concepts such as "Design for All" and "Universal Accessibility". There is a special focus on access to audiovisual and cultural content for people with hearing, visual and cognitive disabilities. While many still believe that audiovisual accessibility is not part of audiovisual translation studies and professional practice, ICAIT believes that audiovisual translation deals with content whose meaning is constructed through a multiplicity of codes, multimodal texts, and their transmission. ICAIT is proof that accessibility to cultural products (film, architecture, natural spaces, art in general) is carried out within the framework of intersemiotic translation and arises from the need for cooperation between experts from different disciplines.

This conference involved two frenetic days of debate on Accessible Intersemiotic Translation around theoretical and practical issues related to audiovisual accessibility and cultural heritage.

The last day of March opened with major proposals on universal accessibility by means of easy-to-read translation through corpus linguistics and on the accessibility of cultural heritage exhibitions. Comparison was also made between the accessibility of television now (VOD, TVOD and streaming platforms) and television a decade ago. A lot of time was devoted to several projects related to audio description of theater and cinema, with a special emphasis on the use of modalities such as audio description and subtitles for the deaf-and-hard-of-hearing as a didactic tool for learning and teaching audiovisual translation and foreign languages.

There are three keynotes I would like to highlight because I consider them to be turning points for the field: those of Anna Matamala and Jorge Díaz Cintas, and Frederic Chaume.

Professor Matamala, principal investigator for the EASIT project (Easy Access for Social Inclusion Training), opened the first day of April by introducing easy-to-read language and current practices regarding easy audiovisual content. This project makes information easy to understand using Easy-to-Read Language and Plain Language. Part of her speech described several other initiatives, notably easy audio descriptions, easy interpreting, easy voice-over, and not yet researched concepts such as easy audio subtitles.

Díaz Cintas and Chaume closed the conference with their panel on the present and future of audiovisual content localization. They debated the new challenges and contexts in which we find ourselves, both in the academic world and as professionals: market demand for immediacy, the irruption of artificial intelligence and neural machine translation in audiovisual and creative content translation workflows, the uberization of translation, the talent crunch and much more.

33 papers with great talent, excellent projects-in-development and interesting proposals for the future made Parma, for a couple of days, a place for intellectual exchange between experts in the field of accessible intersemiotic translation.

Paula Igareda holds a BA in German Philology (Universidad de Salamanca) and a PhD in Audiovisual Translation (Universitat Pompeu Fabra). She is a lecturer at Universitat de Vic-Universitat Central de Catalunya, has been a professional translator since 2005 and has participated in many European projects relating to equal opportunity and the integration of people at risk of exclusion. Her research interests are audiovisual translation, media accessibility, and comic translation.



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Happy holidays!

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