



**BIGGER
BRAINS**

Using AI for Content Localization in L&D

JUNE 13, 2023

www.GetBiggerBrains.com

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- 3 Years experience in Localization for eLearning & Legal content

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Today's Topics

- Intro – Localization vs Translation
- History of Localization Tools
- Bigger Brains journey with Localization
- Moving Beyond Text – Translating Audio & Video
- Key Recommendations



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WHAT IS BIGGER BRAINS?



Off-the-shelf Elearning Library

Bigger Brains is an award-winning eLearning library, with an online learning platform (BrainStation), apps for Microsoft Teams and Webex, and BrainBot training-reinforcement chatbot.

As of June 2023:

240 Courses

4071 Video Lessons

469 hours of training



Training Topics



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- Excel 2010 – 2021 & 365
- Word 2010 – 2021
- Outlook 2013 - 2021
- PPT 2010 - 2021 & 365
- Access 2013 & 2016
- OneNote 2016 & Win10
- Office 365 / Microsoft 365
- SharePoint & OneDrive
- Microsoft Teams
- Power BI
- Microsoft Project
- QuickBooks Pro 2018
- QuickBooks Online
- HIPAA Training
- Gmail Essentials
- Google Workspace Essentials
- Adobe Acrobat Essentials
- Salesforce Essentials
- Chromebooks
- Awkward at the Office:
Workplace Harassment
- Workplace Safety:
Active Shooter
- New Manager Training
- Windows 10 & 11
- Sales & Marketing
- Communication & Listening
- Ethics
- New Manager Training
- Project Management
- Email Management
- Time Management
- File Organization
- Email & Calendar Sharing
- Cybersecurity
- & More!





Localization vs Translation

Translation: the process of converting written or spoken content from one language into another while maintaining its meaning, style, and context.

Localization: adapting a product, service, or content to a specific target market or locale.

Localization goes beyond translation by considering and adapting other elements such as date formats, time zones, currencies, units of measurement, images, colors, symbols, and even user interface design to align with the cultural norms and preferences of the target market. It aims to create a seamless user experience that feels natural and relevant to the local audience, taking into account their language, culture, and customs.

LARA



L&D Content

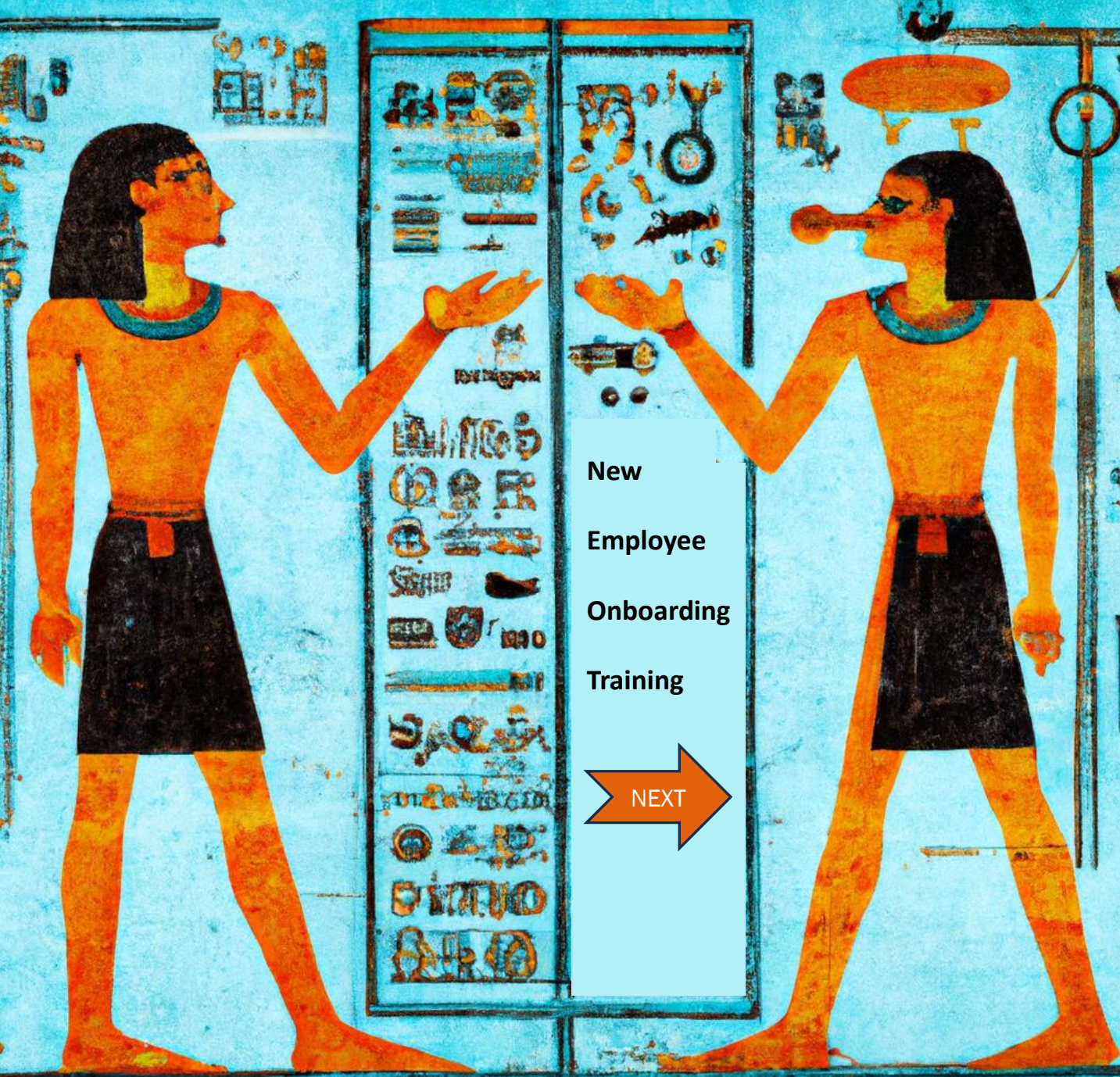
- Research / Outline
- Curriculum / Lesson Plans
- eLearning storyboards / slides (Captive, Articulate, etc)
- Images (with or without text)
- Video & Audio
- Captions / Subtitles / Transcripts
- Job Aids / Handouts
- Assessments / Quizzes
- eBooks / Reference Materials
- Misc Content (e.g. booster apps)



L&D Content

- Research / Outline
- Curriculum / Lesson Plans
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- Captions / Subtitles / Transcripts
- Job Aids / Handouts
- Assessments / Quizzes
- eBooks / Reference Materials
- Misc Content (e.g. booster apps)





New
Employee
Onboarding
Training

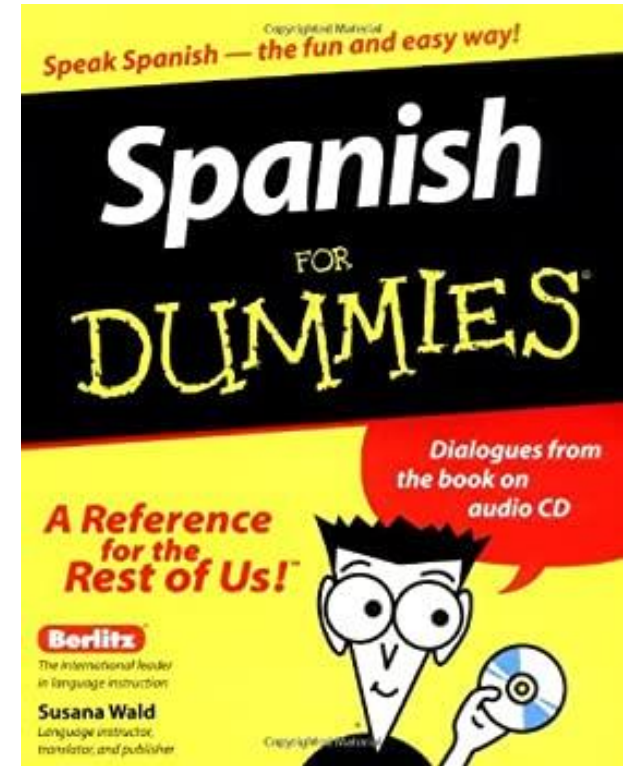


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History of Localization Tools



Pre-1997: People & Books



Build/Buy/Borrow for Localization Team

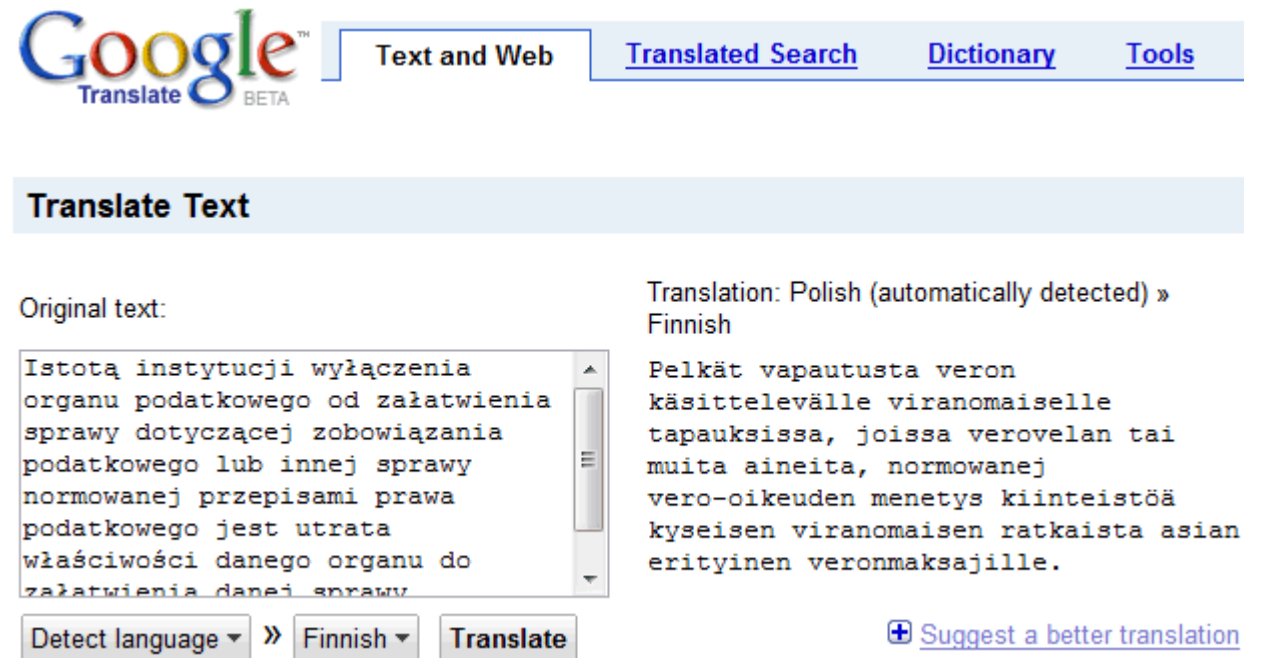
Employee (Hire)



1997-2016: Machine Translation Tools



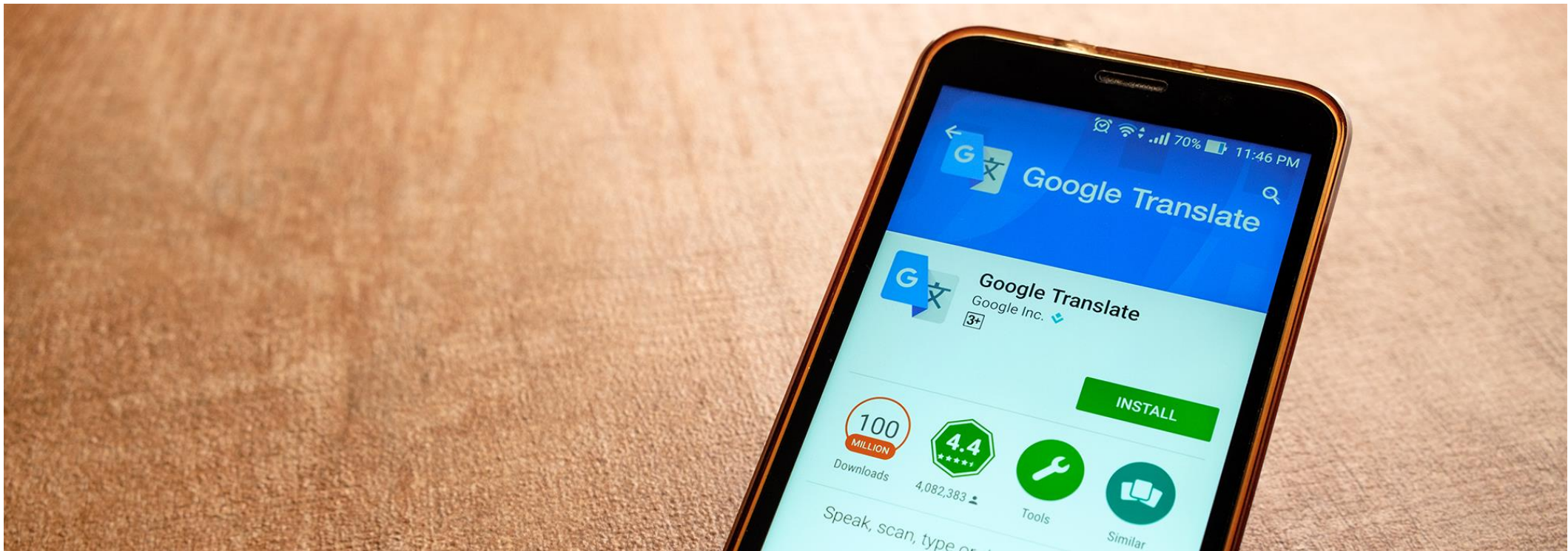
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2016-2022: Neural/Adaptive Machine Translation



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Teachyoubackwards.com (testing Google Translate)

Only 12 languages received a “Tarzan Score” of 65 or better, translating from English:

- Afrikaans 87.5
- German 82.5
- Portuguese-BR&CV 80
- Spanish-SP & LA 75
- Polish 72.5
- Danish 70
- Greek 70
- Chinese 65
- Croatian 65
- Dutch 65
- Finnish 65
- Hungarian 65
- Portuguese-PT 65

“Two thirds of the languages failed at least half the time.”



Teachyoubackwards.com (testing Google Translate)

Only 12 languages received a “Bard Score” of 50 or better, translating from specific English phrases:

- Afrikaans 67.5
- German 60
- Portuguese-PT 60
- Spanish-SP 57.5
- Polish 56.25
- Chinese 55
- Croatian 55
- Spanish-LA 55
- Dutch 52.5
- Galician 52.5
- Greek 52.5
- Portuguese-BR 52.5
- Italian 50
- Latvian 50



2022: Generative Pretrained Transformers (GPT) & Large Language Models (LLMs)

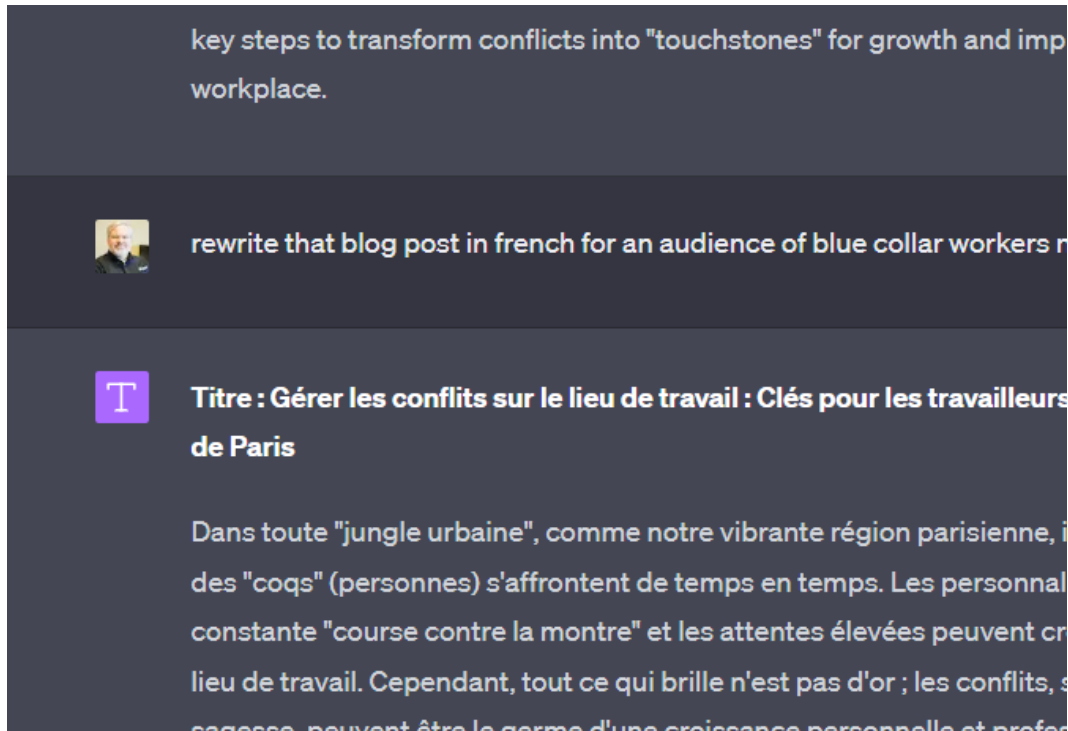
The screenshot shows the ChatGPT interface with a dark theme. On the left is a sidebar with navigation options: '+ New chat', 'Clear conversations', 'Upgrade to Plus' (with a 'NEW' badge), 'Improve ChatGPT', 'Updates & FAQ', and 'Log out'. The main content area is titled 'ChatGPT' and is divided into three columns: 'Examples', 'Capabilities', and 'Limitations'. Each column contains several text boxes with sample prompts and responses. At the bottom, there is a text input field with a red dashed border and a send button. A footer note reads: 'ChatGPT Feb 13 Version. Free Research Preview. Our goal is to make AI systems more natural and safe to interact with. Your feedback will help us improve.'

2017	GPT	120 million parameters
2019	GPT2	1.5 billion
2020	GPT3	175 billion
2022	GPT3.5	Used with ChatGPT
2023	GPT4	1 trillion?

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Emergent Language Skills



ChatGPT is “an unreasonably good next-word predictor” –
Marco Trombetti, Translated.com

French comprehension was an “emergent skill” with GPT2

”I’m not the cleverest man in the world, but like they say
in French: Je ne suis pas un imbécile [I’m not a fool].



⚡ Model: Default (GPT-3.5)



how many e's are in the word ketchup?



There are no occurrences of the letter 'e' in the word "ketchup."



Hallucinations

⚡ Model: Default (GPT-3.5)



how many e's are in the word ketchup?



There are no occurrences of the letter 'e' in the word "ketchup."



spell the word ketchup



Sure! The word "ketchup" is spelled as follows: K-E-T-C-H-U-P.



how many e's are in the word ketchup?



Apologies for the earlier incorrect response. There is one occurrence of the letter 'e' in the word "ketchup."



Hallucinations

Today's AI Translation Tools

Large Language Models / Generative AI

More Fluent, Less Accurate

Examples:

- ChatGPT, GPT3 & GPT4
- Llama
- BLOOM
- Not Yet: Bard, Claude

Machine Translation

More Accurate, Less Fluent

Examples:

- Google Translate
- Microsoft Bing Translator
- DeepL
- Translated.com



Adobe DC Essentials

6%



Bocados de Saber - Empatía: La Clave para la Escucha Activa

20%

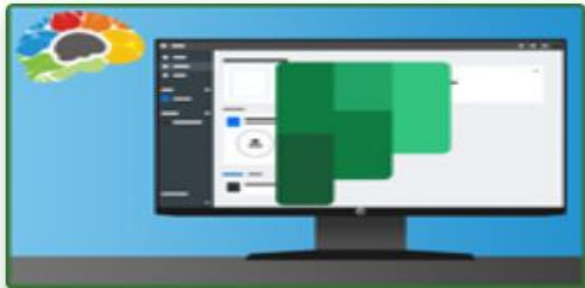


Brain Bites - Covid 19 and Healthy Workspaces

15%



Lo Esencial de la Gestión del Tiempo



Lo Elemental de Planner Office

17%



Improving Diversity and Inclusion (DEI) in Your...

12%



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Our Experience & Issues



Hire, Contract, or Outsource?

Hire:

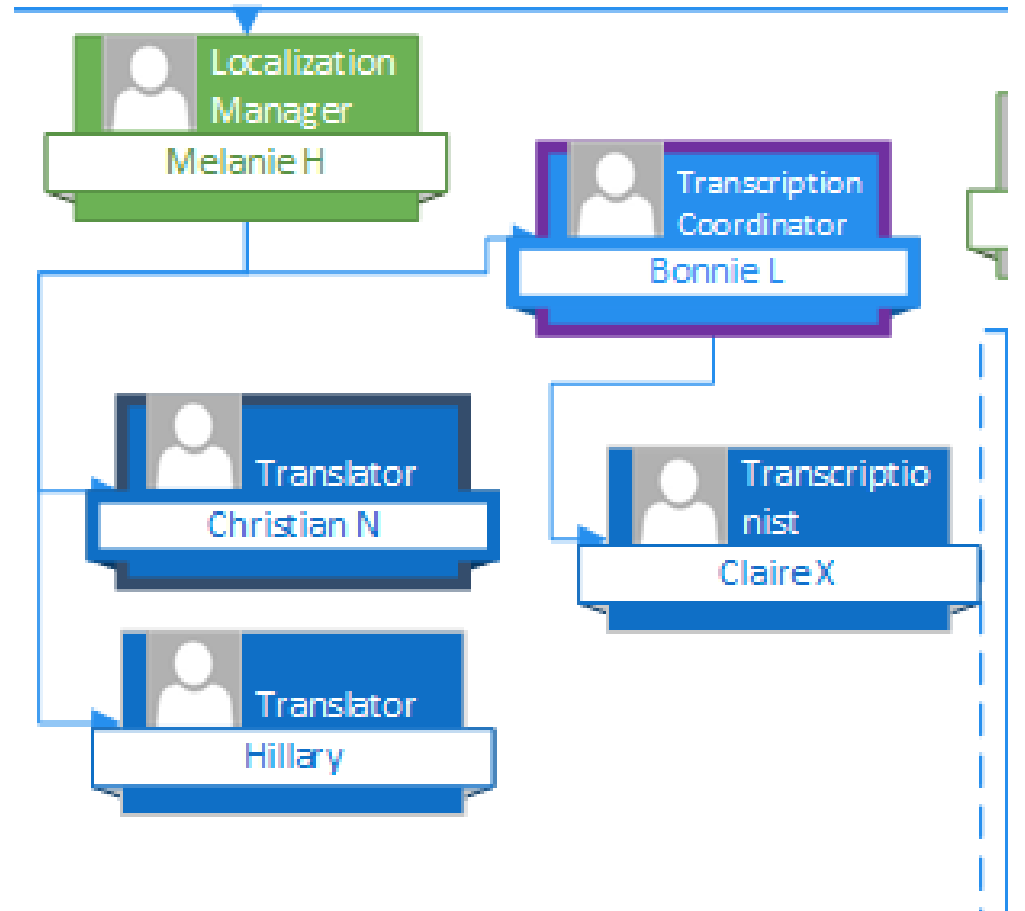
- Localization Manager
- Transcription Coordinator

Contract:

- Spanish Translators
- Portuguese Translator
- French Translator
- Chinese Translator
- Additional Transcriptionists

Outsource:

- Occasional other languages, special projects



Basic Captions & Subtitles

Definitions:

Transcript

Captions

Subtitles

Tools:

[Trint.com](https://trint.com)

[SimonsaysAI.com](https://simonsaysai.com)

Aegisub – subtitle editor

Translation Lessons

```
01 - Communicate - Notepad
File Edit Format View Help
WEBVTT

00:00:07.280 --> 00:00:09.470
Shivani: It's always been
important to be respectful

00:00:09.536 --> 00:00:11.809
and courteous in a
shared workspace.

00:00:11.876 --> 00:00:14.900
But today, more than ever, we
need to be extra careful when

00:00:14.966 --> 00:00:16.460
sharing a space with others.

00:00:16.526 --> 00:00:21.140
In 2020, the spread of COVID-19
led to many offices instituting

00:00:21.206 --> 00:00:23.250
new rules and guidelines.

00:00:23.316 --> 00:00:26.540
This type of event underscores
the importance of a clean

00:00:26.606 --> 00:00:30.929
environment in which employees
are considerate about sharing space.

00:00:30.996 --> 00:00:33.649
Shivani: Hey Luco, let me
ask you something.

00:00:33.716 --> 00:00:35.869
Do you think you're a
good co-worker to the

00:00:35.936 --> 00:00:37.009
other people you work with?
```

Good captions will help for good subtitles:

- Problems in time stamps and correct words

Tools make a difference:

- Using Wordpad or notepad, can mean moving the time stamps
- Aegisub gave us control over the time stamps, CPS, and it was **FREE**. Problem: it is **SCARY** looking

* 01- Exploring the New Manager Skill Set.ass - Aegisub 3.2.2

File Edit Subtitle Timing Video Audio Automation View Help

The screenshot shows the Aegisub subtitle editor interface. The top-left pane displays a video preview of a hand moving a Funko Pop figure. The top-right pane shows a timeline with a blue bar representing a subtitle track. The bottom-right pane shows the subtitle editor controls, including a 'Comment' field with 'Default', an 'Actor' dropdown, and a 'Text' field containing 'Gerente distrital.'. The bottom-left pane shows a list of subtitles with columns for line number, start and end times, CPS, style, and text.

#	Start	End	CPS	Style	Text
1	0:00:02.39	0:00:03.50	14	Default	Gerente distrital.
2	0:00:05.00	0:00:06.09	13	Default	Tem um toque legal.
3	0:00:09.02	0:00:12.04	4	Default	[Toque de telefone]
4	0:00:13.08	0:00:16.36	11	Default	Olá? Sim, Eu precisava Wpedir mais inventário.
5	0:00:16.68	0:00:17.68	17	Default	Eh, temos um problema.
6	0:00:19.39	0:00:24.58	9	Default	Sim, eu precisava de mais cartão Wpara faixas, papel cartão,
7	0:00:24.58	0:00:26.62	11	Default	ímãs e alguns cartaz de vinil.
8	0:00:28.08	0:00:29.10	18	Default	Sim, deixe-me tirar isso.
9	0:00:30.06	0:00:32.11	23	Default	SRB Tax está na linha dizendo que não Wrecebeu sua remessa.
10	0:00:32.11	0:00:33.51	12	Default	Não posso falar agora!
11	0:00:34.17	0:00:35.06	7	Default	Ok, nossa!
12	0:00:36.06	0:00:40.04	4	Default	[Música de introdução]
13	0:00:43.76	0:00:45.27	20	Default	Depois de tomar este módulo, você será
14	0:00:45.28	0:00:46.28	15	Default	capaz de explicar
15	0:00:47.14	0:00:48.66	16	Default	as diferenças entre habilidades

When Translation and Localization Collide

Ideally, engaging eLearning should include:

- Language specific to the audience, including tone, slang, idioms, etc.
- Humor if appropriate
- On-screen graphics & screen recordings in the appropriate language
- Conversational (unscripted) dialogue



The screenshot shows a Microsoft Teams meeting interface. The top navigation bar includes "Try the new Teams", "Search", and "Bigger Brains". The main content area displays a video call with two participants: a woman in a red floral top and a man in a purple shirt. The video player shows a progress bar at 00:43 / 07:03. On the right side, a transcript is visible, showing a conversation between Meg and Jason. The transcript includes the following text: "we could meet with one person by having an audio or video call. You mentioned we could add more people to a call, but that it's usually better to set up a meeting instead. How does that work? Meg: There are four ways that you can start a meeting. If you are in a channel having a conversation, you can always start a quick meeting by choosing the 'Meet Now' icon. Add a subject for your meeting, and then anyone in the channel can join. Jason: I wish it was 'Meat Now', like M-E-A-T. Salomi, please! If I start a meeting in a channel, how will people know to join? Meg: Well, if they have access to the channel, they'll see the".



Experimentation with AI

First prompt we used:



You are a translator. I will post text from a caption file for a video in English, in SRT format. The format includes timecodes for when the text is displayed on screen in the video, plus the text to display. The text represents dialog being spoken by two people in the video, Kathy and Luco. You will translate the dialog from Kathy and Luco from english to spanish, without changing their names or the time codes. When one sentence or thought spans across multiple time codes you will translate the sentence so the grammar is appropriate in Spanish, but still divided up among the original timecodes as the english version. Here is the english SRT text:



We found out that one sentence was just as good:



Translate this .srt transcript form english to spanish. Be mindful that this is a teaching course, and be sure to use proper Microsoft terminology. This is the .srt transcript:

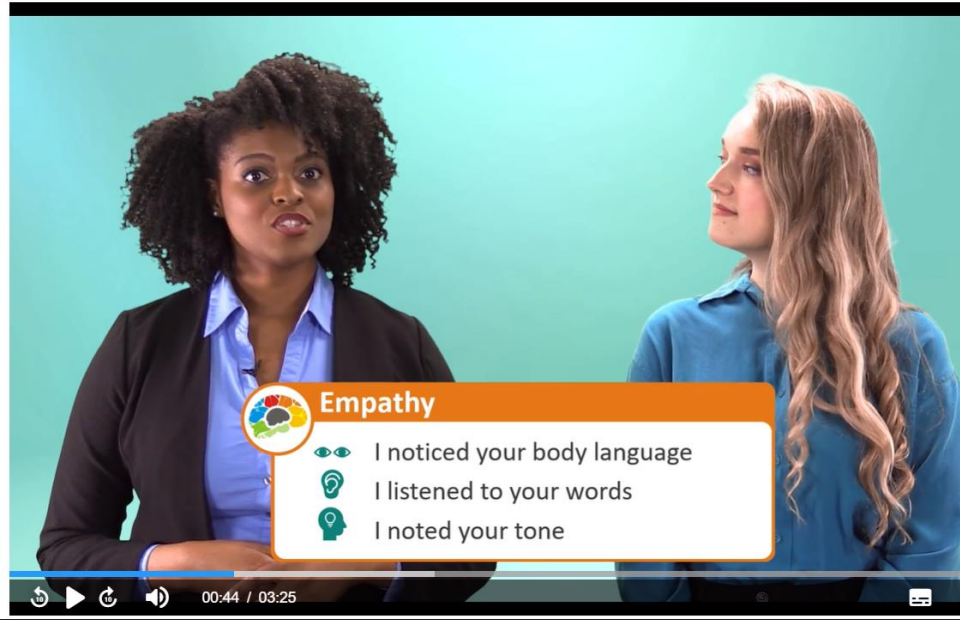




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**Moving Beyond
Text: Audio, Video,
and Images**





Localization Steps

Transcribe existing video (or get script/transcript)

Edit English transcript

Translate dialogue for each person

Dub dialogue for each person

List on-screen graphics and screens to translate

Translate or recreate on-screen graphics

Integrate dubbed audio and new graphics into video footage

Adjust timings as needed

Our Previous Process:

Transcribe existing video (or get script/Transcript)	SimonSaysAI or Trint
Translate dialogue for each person	Humans, some help from Google Translate
Dub dialogue for each person	Humans, outsourced
List on-screen graphics and screens to translate	Humans
Translate or recreate on-screen graphics	Humans, some help from Google Translate
Integrate dubbed audio and new graphics into video footage	Humans
Adjust timings as needed	Humans
Other Text Translation	Humans



Our Experimental Process:

Transcribe existing video (or get script/transcript)	SimonSaysAI or Trint
Translate dialogue for each person	Trint/ChatGPT w/ Human review
Dub dialogue for each person	Azure Text-to-Speech or Blanc w/ Human review
List on-screen graphics and screens to translate	Humans
Translate or recreate on-screen graphics	Humans, some help from ChatGPT
Integrate dubbed audio and new graphics into video footage	Humans or Blanc but evaluating Wavel
Adjust timings as needed	Humans, Wavel, or Blanc
Other Text Translation	ChatGPT, evaluating DeepL





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Key Takeaways

1: Humans Are Still Best

Staff, Contract, or Outsourced



2: Make sure your Humans are using AI to save time

Ask your vendors about their AI strategy – it's not survivable to keep doing what you've always done.



3: Use Different Prompts for Translation vs Localization in ChatGPT

TRANSLATION

Translate this .srt document to Brazilian Portuguese, don't change the format, DO NOT ADD OR DELETE ANYTHING, and use proper Microsoft language:
<paste>

Or

Translate this text to <language>, do not add or delete anything.

LOCALIZATION

Act as an Instructional Designer. Rewrite this English lesson plan in Spanish as appropriate for a business professional in Colombia. Use an informal but professional tone.

Or

This is a handout for a course on <topic>. Create a similar handout for a course on <new topic>. Include key points from the course, including but not limited to <topic 1>, <topic 2>, etc.

4: Make Sure Humans Are Double-Checking Your AI



rewrite this article in kinyarwanda



The Korean War, often referred to as "The Forgotten War," can be translated into Kinyarwanda (also known as Rwandan) as follows:



Intambara ya Koreya, ikenshi yitwa "Intambara yasizweho," yabaye umurwi mukuru muri za mbere z'intambara ya Guerre Froide, yakozwe kuva muri 1950 kugeza muri 1953. Iyi ntambara yavuye muri kontekisite y'urugano hagati y'Imvururu y'Iburengerazuba yari igizwe n'Imirungu Ubumwe n'Igihugu cya Soviet, kandi y'Imvururu y'Amajyaruguru yari igizwe n'Ubufaransa, nyuma y'uko Intambara ya Kabiri y'Isi irangiye. Koreya, yari yaratewe n'Ubufaransa, yavugururwa hakurikijwe iyo igice cya 38 cy'amajyaruguru mu byiciro bya 2: Kigali yari yaraterewe n'Abasovieti n'Iburengerazuba n'Abami. Muri Werurwe 1950, Koreya y'Amajyaruguru, yakomejwe na Repubulika Iharanira Demokarasi ya Congo n'Ubufaransa, yakomeje kubohoza Koreya y'Iburengerazuba, ishyiraho iyi ntambara.

4: Make Sure Humans Are Double-Checking Your AI

translate the kinyarwandan text above to english, do not add or delete anything

The Korean War, often called "The Forgotten War," was a major group in the early stage of the Cold War, which was fought from 1950 to 1953. This war originated in the context of the divide between the West Block led by the United States and the Soviet Union, and the East Block led by France, after the end of World War II. Korea, which was occupied by France and the Soviet Union, was divided along the 38th parallel into two categories: North Korea occupied by the Soviets and South Korea occupied by the United States. In June 1950, North Korea, supported by the Democratic Republic of Congo and France, continued to invade South Korea, initiating this war.

Teachyoubackwards.com (testing Google Translate)

Only 12 languages received a “Tarzan Score” of 65 or better, translating from English:

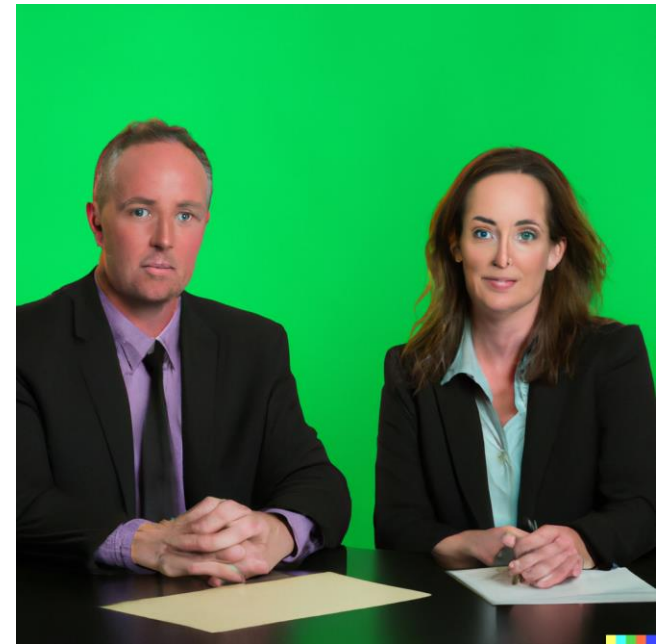
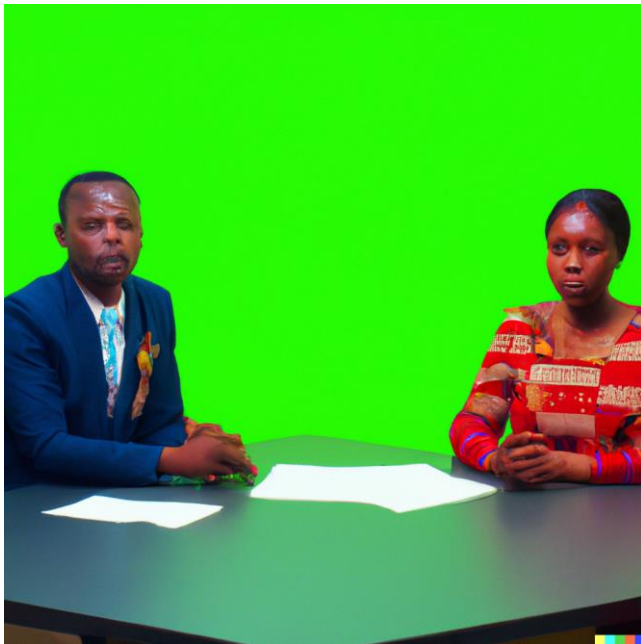
- Afrikaans 87.5
- German 82.5
- Portuguese-BR&CV 80
- Spanish-SP & LA 75
- Polish 72.5
- Danish 70
- Greek 70
- Chinese 65
- Croatian 65
- Dutch 65
- Finnish 65
- Hungarian 65
- Portuguese-PT 65

“Two thirds of the languages failed at least half the time.”



5: Where Possible, Empower True Localization

HUMOR, LOCAL CONTEXT, NATIVE PEOPLE IN IMAGES AND VIDEOS, ETC.



6: Edit Source Content For Easier Translation

Look for humor, idioms, colloquialisms, and other types of language or visuals which may not translate well into other languages



The screenshot displays a Microsoft Teams meeting interface. At the top, the browser address bar shows the URL "Bigger Brains eLearning BrainStation Landing Page About". The meeting title is "Brain Bites - Microsoft Teams Meetings". The video player shows two presenters: a woman in a red patterned top and a man in a purple shirt. The transcript sidebar on the right shows the following text:

Lesson Transcript

we could meet with one person by having an audio or video call. You mentioned we could add more people to a call, but that it's usually better to set up a meeting instead. How does that work? Meg: There are four ways that you can start a meeting. If you are in a channel having a conversation, you can always start a quick meeting by choosing the "Meet Now" icon. Add a subject for your meeting, and then anyone in the channel can join. Jason: I wish it was "Meat Now", like M-E-A-T. Salomi, please! If I start a meeting in a channel, how will people know to join? Meg: Well, if they have access to the channel, they'll see the

The video player controls at the bottom show a progress bar at 00:43 / 07:03.

7: Regularly research & evaluate new tools and vendors

- a. Text tools:
 - i. ChatGPT (Not Bard or Claude, yet)
 - ii. DeepL
 - iii. Google Translate
 - iv. Microsoft Bing Translator
 - v. BLOOM
<https://huggingface.co/bigscience/bloom>
 - vi. Mirai
 - vii. Taia
- b. Captions / Transcripts
 - i. Trint
 - ii. Simon Says
 - iii. Aegisub
- c. Audio tools:
 - i. Sonix
 - ii. Azure Text-to-speech
 - iii. Google Text-to-speech
- d. Video tools:
 - i. Useblanc.com
 - ii. Rask.ai
 - iii. Papercup.com
 - iv. Wavel.ai
- e. Services
 - v. Descript.com
 - vi. Synesthesia.ai
 - vii. Colossyan.com
 - viii. Hunet.co.kr
 - ix. RunwayML.com



Localization/Translation Serv...

14

440 Colossyan

2211 Commit Global

1046 CommLab India

2113 Global eLearning

2536 Global Lingo

1738 Idea Translations - E-Learning
Solutions

1441 Ingenuiti

509 Interpro Translation Solutions

2509 Jonckers

1935 LanguageLine Solutions

1246 Local Concept

2508 Morningside, a Questel
Company

2041 RWS

517 Smartcat, Inc.



Use AI to research AI

ChatGPT Plus, Bing Chat, or Google Bard can be good tools to help evaluate different AI vendors

The screenshot shows the Microsoft Bing Chat interface. At the top, there are logos for Microsoft Bing, a search icon, and a chat icon. The chat input field contains the question: "How does Colossyan compare to Synesthesia.ai?". Below the input, there are two green checkmarks indicating the search and answer generation status. The main response area contains a detailed comparison of Colossyan and Synesthesia.ai, including a paragraph of text and a "Learn more" section with three numbered links: 1. synthesia.io, 2. g2.com, and 3. colossyan.com. Below the response, there are two suggested follow-up questions in rounded boxes: "What are some other AI video generators?" and "What is the pricing for Colossyan and Synesthesia.ai?". At the bottom, there is a "New topic" button and a text input field with a microphone icon.

Microsoft Bing SEARCH CHAT

How does Colossyan compare to Synesthesia.ai?

✓ Searching for: **Colossyan vs Synesthesia.ai**

✓ Generating answers for you...

Both **Colossyan** and **Synesthesia.ai** are AI video generators that allow users to create videos from text. Both tools offer auto-captioning and AI script generators, making it easy for users to generate scripts and captions for video content ¹. However, only Colossyan offers auto-translation, making it a good option for users who need to translate text as well as convert it to speech ¹.

According to user reviews on G2, Colossyan Creator rates 4.7/5 stars with 177 reviews while Synthesia rates 4.8/5 stars with 732 reviews ².

I hope this helps you compare the two tools! Let me know if you have any other questions.

Learn more: [1. synthesia.io](https://synthesia.io) [2. g2.com](https://g2.com) [3. colossyan.com](https://colossyan.com) +1 more 1 of 30 ●

? What are some other AI video generators? What is the pricing for Colossyan and Synesthesia.ai?

New topic Ask me anything...



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Questions?

**ChatGPT Business
Essential course**

coming to

OpenSesame in July

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CHIP@BIGGER-BRAINS.COM

www.GetBiggerBrains.com

