

Literature Translation & Meeting Interpretation Technology

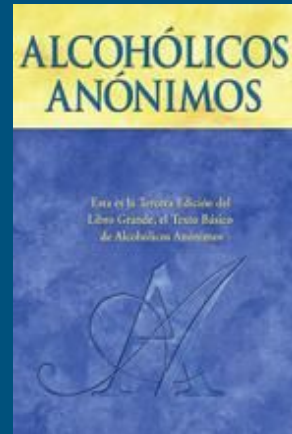
Allise B. & Shannon O.



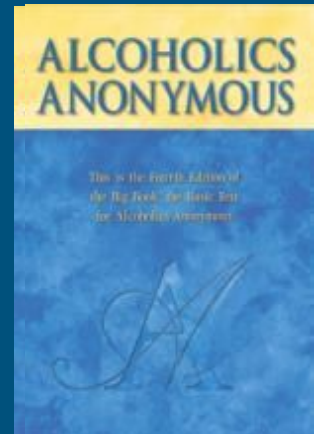
Why we got interested

- El Libro Grande in Spanish does not say the same things as the Big Book in English and we believe our Spanish-speakers deserve a better translation.
- AAWS is concerned about the cost and logistics of last year's Advisory Action requiring the Background Material be released in French & Spanish at the same time as the English.

We believe technology can solve both issues. NAATW asked us to tell you how it can solve your challenges, too.



≠



Why you should be interested

Tradition V

Our primary purpose: carrying THE message to the alcoholic who still suffers...

...regardless of proficiency to read/write/speak English

Our aim: to grow in understanding & effectiveness

Technology has changed the landscape of what we can do, how well we can do it, and how quickly we can get it done...

WE are responsible...for putting that technology to use!

Goals of
Translation:
Accuracy,
consistency &
timely delivery

How much are we
really helping if we
pass on inaccurate
translations or none
at all?

Topics for Today

Translation (Text-to-Text)

Interpretation (Speech-to-Speech)

Transcription (Speech-to-Text)

Closed Captioning (Speech-to-Text)

Topics for Another Day

ASL Interpretation (Speech-to-Sign)

Text-to-Speech for Sight-Impaired

Website Translation (Text)

Document Translation Technology

Text-to-Text

Document Translation

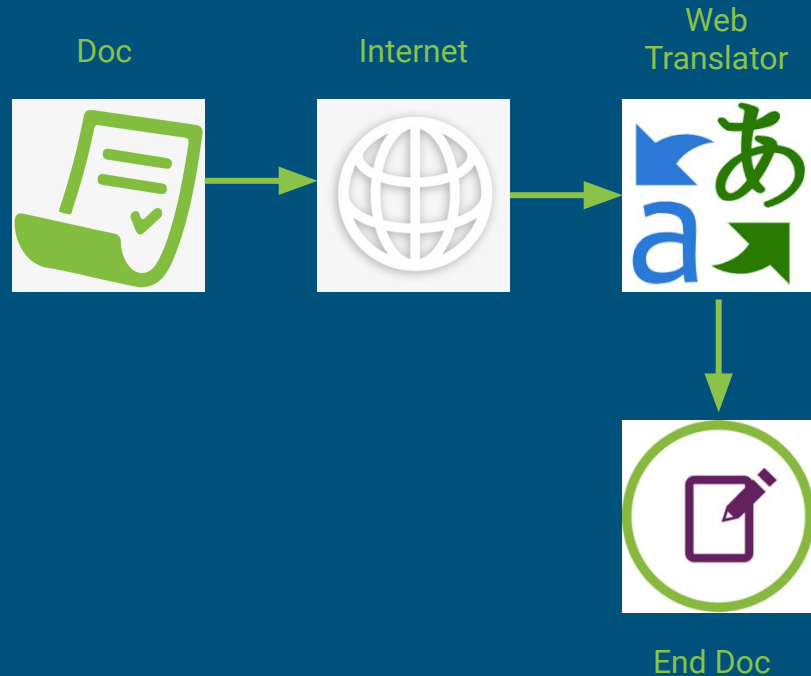
What: Agendas, Flyers, Minutes,
Motions & Background Material,
Reports, etc.

Three Primary Concerns:

- Quality
- Turnaround Time
- Cost

Literature Translation Technology

Issues	Current/Recent
Who	Google Translate, MS Translator
How	Quick & easy: run document through on website
How long	Minutes
How much	FREE
How good	[Regional travel] pool = swimming pool Chair = recliner Presidente del comité--but NO presidents in AA 389 errors in July Minutes



Pro Tip:

Run spellcheck & proofread
the English document *before*
you translate it!

(It's not fair to expect a good translation of a wrong word!)

Google Translate



Laptop

A screenshot of the Google Translate website on a laptop. The interface shows the source language as English and the target language as Spanish. The input text is "It means you should read The Big Book for instructions!". The output text is "¡Significa que debe leer El Libro Grande para obtener instrucciones!". A green arrow points to the microphone icon in the input field, labeled "Dictate". Another green arrow points to the speaker icon in the output field, labeled "Hear pronunciation".

Google Translate

DETECT LANGUAGE **ENGLISH** Spanish

SPANISH ENGLISH

It means you should read The Big Book for instructions!

¡Significa que debe leer El Libro Grande para obtener instrucciones!

Dictate

Hear pronunciation

55 / 5,000

Send feedback

Phone

A screenshot of the Google Translate mobile app interface. The source language is English and the target language is Spanish. The input text is "The Big Book shows us precisely how the first 100 recovered.". The output text is "El Libro Grande nos muestra precisamente cómo se recuperaron los primeros 100.". A green circle highlights the microphone icon in the input field. Another green circle highlights the speaker icon in the output field. Green arrows point from these icons to the corresponding icons in the laptop screenshot.

Google Translate

English Spanish

ENGLISH

The Big Book shows us precisely how the first 100 recovered.

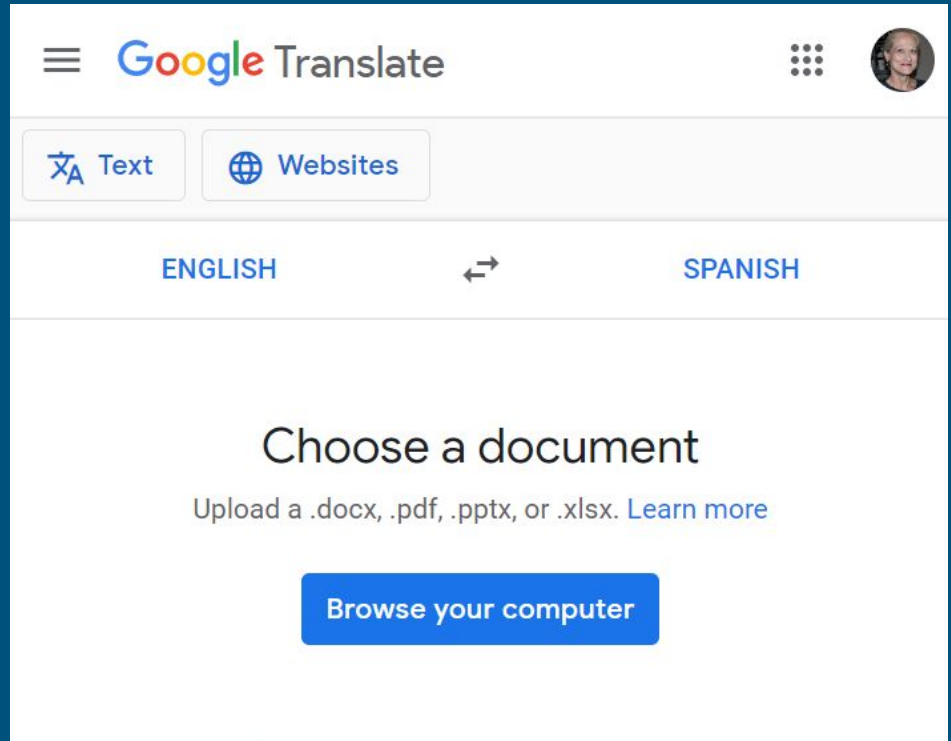
Camera Conversation Transcribe

SPANISH

El Libro Grande nos muestra precisamente cómo se recuperaron los primeros 100.

Google Translate Documents

<https://translate.google.com/>



The screenshot shows the Google Translate interface for document translation. At the top, there is a navigation bar with the Google Translate logo and a user profile picture. Below this, there are two tabs: 'Text' and 'Websites'. The main content area shows the source language as 'ENGLISH' and the target language as 'SPANISH', with a double-headed arrow between them. The central text reads 'Choose a document' followed by 'Upload a .docx, .pdf, .pptx, or .xlsx. [Learn more](#)'. A prominent blue button labeled 'Browse your computer' is positioned at the bottom of the page.

Google Translate

Text Websites

ENGLISH ↔ SPANISH

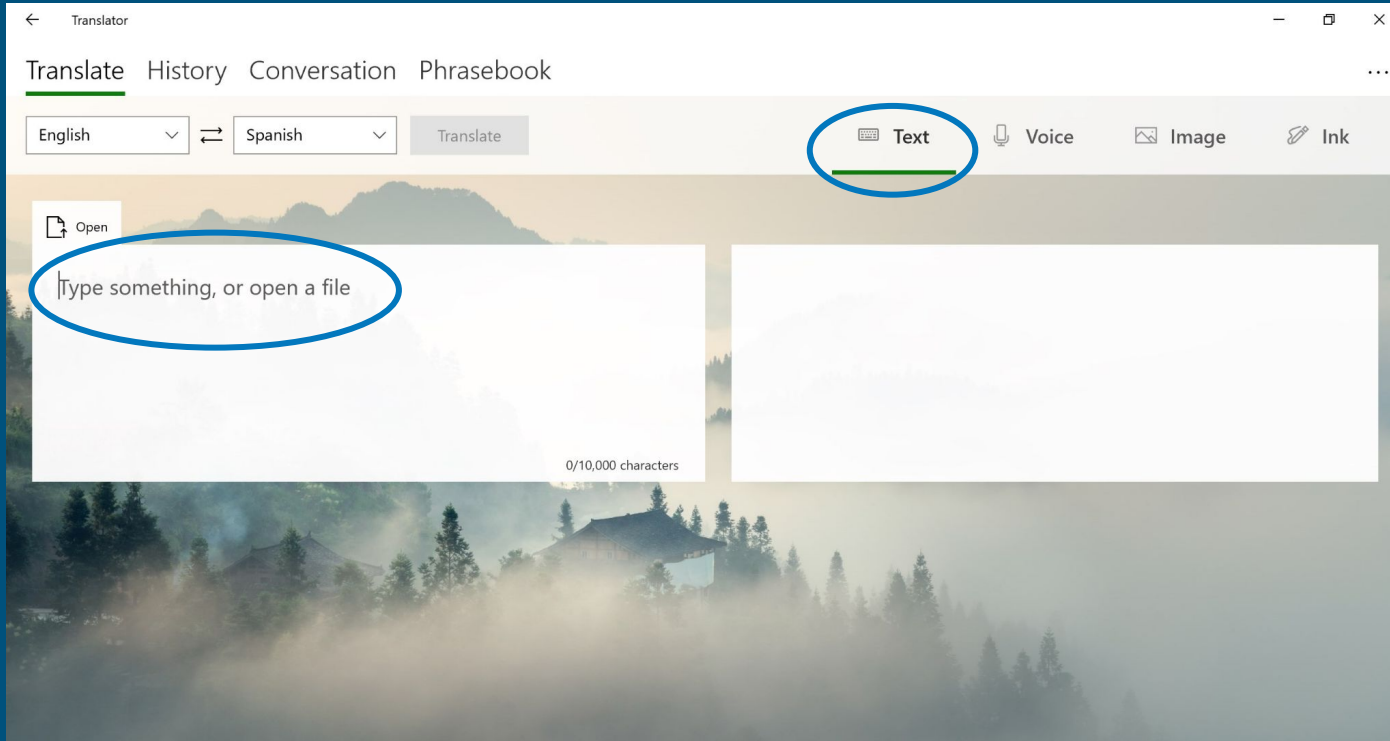
Choose a document

Upload a .docx, .pdf, .pptx, or .xlsx. [Learn more](#)

[Browse your computer](#)

MS Translator

www.microsoft.com/en-us/translator/



How It Works: The AI Translation Version

Will be in the slide deck available after NAATW
We were asked to present on practicalities rather than AI

11th Tradition WARNING!!! Machine Translation

Google Translate acquires ownership of any information that it translates under its official terms and conditions; other platforms may have the same issue.

- Anonymity risks
- Copyright concerns

Horror story: A \$43B Norwegian oil company used Translate.com, a free online tool, to translate notices of dismissal, plans of workforce reductions and outsourcing, passwords, code information, and contracts, only to find the translation of all of this sensitive material was later discoverable via a basic Google search.

The Guide to Translation and Localization (8th ed.)
Courtesy of LanguageLine Translation Solutions

Moral of the Story:
Remove the last names *before* you translate!

Statistical Machine Translation (SMT)

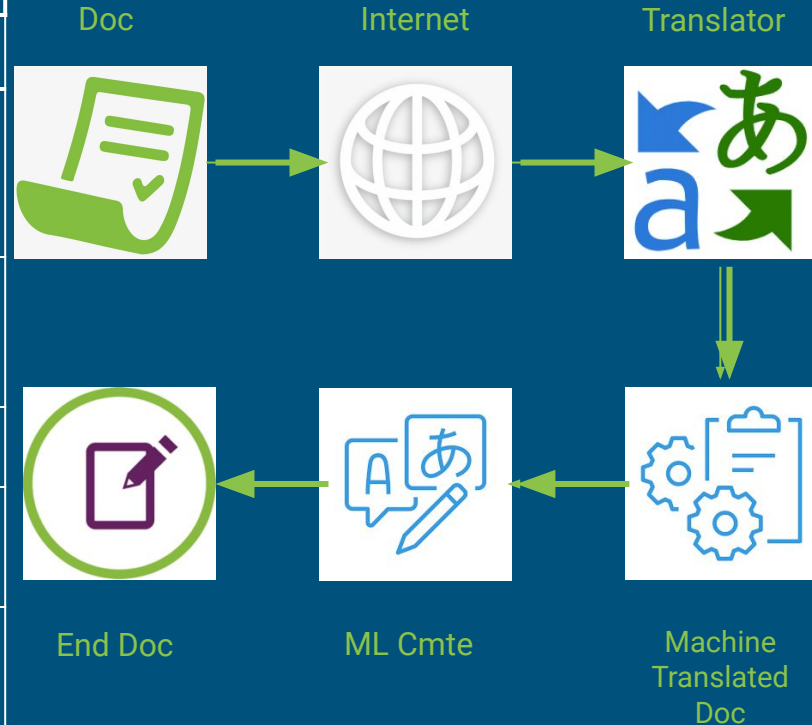
- **Parallel corpora** (training data) — massive modern Rosetta Stones providing word, phrase, and idiom translations in context for many language pairs
- Short context around a given word instead of performing single word translations.
- No reliance on grammatical rules or dictionaries (except for single-word translations).
- **Statistical modeling** techniques address:
 - **decipherment**—detecting the correspondences between source and target language in the training data, and
 - **decoding**—finding the best translation of a new input sentence.



This image is in the public domain in its country of origin.

Literature Translation Technology

Issues	Current/Recent	Good
Who	Google Translate, MS Translator	#1 + human editing by Multilingual Cmte
How	Quick & easy: run document through on website	#1 + send to Multilingual Cmte in advance
How long	Minutes	Days or Weeks
How much	FREE	FREE
How good	[Regional travel] pool = swimming pool Chair = recliner Presidente del comité--but NO presidents in AA	As good as your Multilingual Committee



Translation Management System (TMS)










- **Cloud-based CAT (Computer-Aided Translation) Tool**
 - Central repository where all translated content lives
 - Glossaries, Style Guides are uploaded, updated (if necessary) & stored here
 - Accessible by as many people as required to complete the project, including:
 - Multilingual Committee Members
 - Bilingual AA Members
 - Paid, Certified Translators/Editors/Reviewers
- **Translation Memory Database = Translation Memory savings**
 - **Word types:**
 - New words
 - Fuzzy words
 - Repeat words

Literature Translation Technology

Issues	Current/Recent	Good	Better
Who	Google Translate, MS Translator	#1 + human editing by Multilingual Cmte	Paid, certified translators w/ <i>glossary</i>
How	Quick & easy: run document through on website	#1 + send to Multilingual Cmte in advance	Create glossary in advance; send documents well before needed
How long	Minutes	Days or Weeks	Days, Weeks or Months (affects cost)
How much	FREE	FREE	Priced on per-word basis ES: \$0.01 - \$0.05/word FR: \$0.02 - \$0.07/word
How good	[Regional travel] pool = swimming pool Chair = recliner Presidente del comité--but NO presidents in AA	As good as your Multilingual Committee	Varies by whether they understand AA lingo; certified translators should do an excellent job if given a thorough glossary



Literature Translation Technology

Issues	   <p><i>These 2 stay resident in the cloud</i></p>					Best
Who	<p>Doc + Glossary + Translation Memory</p>					Computer-Aided Translation <i>with glossaries, Memory Tech + professional review</i>
How	 <p>NN in Cloud</p>					Glossary & translation memory prep, then easy thereafter
How long						Seconds to minutes per document + review time
How much	    					Per-word charge, with translation mem. leverage
How good						Excellent and gets better: machine learning used to teach the program from past documents

Consistency is critical to effective communication

La Asociación de Academias de la Lengua Española (ASALE.org)

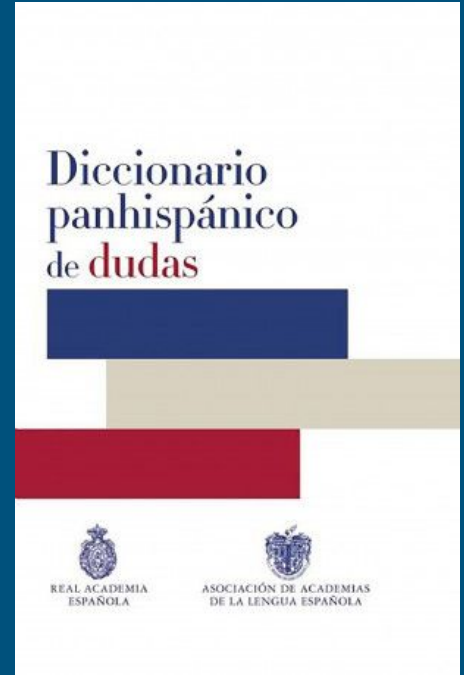
- Coalition of the 23 Spanish-speaking countries seeking ONE Spanish led by the RAE (la Real Academia Española or Spanish Royal Academy)
- Dialects are expressed through spoken accents and slang, neither of which are in our literature (audiobooks aside)



Consistency is critical to effective communication

La Asociación de Academias de la Lengua Española (ASALE.org)

- Coalition of the 23 Spanish-speaking countries seeking ONE Spanish led by the RAE (la Real Academia Española or Spanish Royal Academy)
- Dialects are expressed through spoken accents and slang, neither of which are in our literature (audiobooks aside)
- Academics come together to resolve differences in their regionalisms so that there is only ONE written Spanish



Pan-Hispanic Dictionary
of Doubts

Glossary Reconciliation

We can accept suggestions from various sources—our current literature, electronic translators, Area Multilingual Committees, etc. and resolve the differences like ASALE does.

English-Spanish Glossary						
English	SETA Glossary	Google Translate	MS Translator	Comments	Comments 2	Resolution
Alternate Delegate	Delegado alterno/a	Delegado alterno/a	Delegado suplente	New Svc Man uses "suplente"	SETA believes "alterno" is closer	???
Alternate GSR	RSG alterno/a	RSG suplente	GSR alternativo	no gender in MS		???
Chair	—	silla	silla	don't sit on them	train the humans	???
Chairperson	Coordinador/a	Presidente/a	Presidente	no Presidents in AA!	No gender in MS	Coordinador/a
DCM	MCD	MCD	DCM			MCD
GSC	CSG	SGC	Sgc			CSG
GSO	OSG	OSG	OSG			OSG
GSR	RSG	RSG	Gsr			RSG

ORIGINAL sponsor

“In A.A., sponsor and sponsored meet as equals, just as Bill and Dr. Bob did. . . . An alcoholic who has made some progress in the recovery program shares that experience on a continuous, individual basis with another alcoholic who is attempting to attain or maintain sobriety through A.A.”

P-15, Questions and Answers on Sponsorship

3ª EDICIÓN

padrino / madrina

- Las connotaciones religiosas o mafiosas pueden frenar a los miembros. RAE define como:
 - un hombre que presenta y asiste a quien recibe el **bautismo** y que contrae con él ciertos compromisos;
 - Hombre que acompaña a quien recibe algún **sacramento cristiano**; o
 - jefe de una organización **mafiosa**.

TRADUCCIÓN PROPUESTA patrocinador/a

- Alguien quien defiende, protege, ampara, o favorece.
- “En A.A. el padrino y el apadrinado se encuentran como iguales Un alcohólico que ha hecho algunos progresos en el programa de recuperación, comparte esta experiencia de una forma continua y personal con otro alcohólico que está esforzándose por alcanzar o mantener la sobriedad por medio de A.A.”

SP-15, Preguntas y Respuestas Sobre el Apadrinamiento

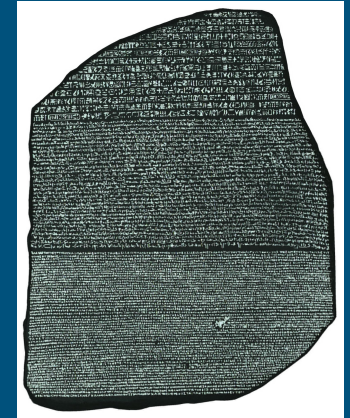
3ª ED. TRANSLATED BACK godfather / godmother

- Religious or mafioso connotations may hold members back. RAE defines as:
 - someone who introduces and assists the one who receives **baptism** and who makes certain commitments with him;
 - someone who accompanies someone who receives a **Christian sacrament**; or
 - head of a **mafia** organization.

Multilingual Glossaries

Glossaries provide pre-defined translations for English words, phrases and idioms in all target languages. They are auto-populated by the TMS to ensure consistency.

English-French-Spanish Glossary				
English	French fem.	French masc.	Spanish fem.	Spanish masc.
Alternate Delegate	Délégué adjoint	Délégué adjoint	Delegada alterna	Delegado alterno
Alternate GSR	RSG adjoint	RSG adjoint	RSG alterna	RSG alterno/a
Chairperson	Coordinatrice	Coordinateur	Coordinadora	Coordinador
DCM	RDR	RDR	MCD	MCD
General Service Conference	Conférence des Services généraux	Conférence des Services généraux	Conferencia de Servicios Generales	Conferencia de Servicios Generales
GSC	CSG	CSG	CSG	CSG
GSO	BSG	BSG	OSG	OSG
GSR	RSG	RSG	RSG	RSG



We can make a 21st century Rosetta Stone for AA.

https://commons.wikimedia.org/wiki/File:Rosetta_Stone_BW.jpg

This work is in the public domain in its country of origin.

Neural Machine Translation (NMT)

- Translation takes into context the full sentence, versus a sliding window of only a few words that Statistical Machine Translation (SMT) technology uses.

The buck does

The buck does

The buck does funny things when does are present.

- Produces more fluid and human-sounding translation.

Neural Machine Translation (NMT) Steps

1. Each word is coded along a **500-dimension vector** **a** per language pair including gender, politeness level, part of speech and other non-obvious characteristics derived from the training data.
2. This 500-dimension vector goes through a first layer of “neurons” that encode it into a **1000-dimension vector** **b** representing the word in the context of the other words in the sentence.
3. The process is **repeated several times**, each layer allowing better fine-tuning of the 1000-dimension representation of the word within the context of the full sentence (unlike SMT technology that can only consider a 3-to-5-word window).

a

b

c

Neural Machine Translation (NMT) Steps

4. The final output matrix is then used by the **attention layer** (a software algorithm) along with the output of previously translated words to define which word should be translated next and to drop unnecessary words in the target language.
5. The **decoder (translation) layer**, translates the selected word (i.e., the 1000-dimension vector representing this word within the context of the full sentence) in its most appropriate target language equivalent. The output of this last layer **c** is then fed back into the attention layer to calculate which word should be translated next.

a

b

c

Document Translation

Sample Fee Computations

Sample Fee Computation

Example: Area Policies & Procedures Document, English > Spanish

- 30 page document, estimated ~300 words/page (English)
- Spanish expands by roughly 25-30% = 375 words/page
- 375 words/page x 30 pages = 11,250 words

Even without a robust Translation Memory database, still expect 20% of content will be 100% match/repeated segments within document.

MT-only:

Cost: FREE
TAT: Minutes
Quality: 6/10

MT+Review:

Cost: **\$360**
9,000 new words x \$0.04/wd = \$360
2,250 repeat words x FREE = \$0
TAT: ~2 days
Quality: 8/10

Professional + TM Pricing:

Cost: **\$570.00**
3,000 new wd x \$0.11/wd = \$330
6,000 fuzzy wd x \$0.04/wd = \$240
2,250 repeat words x FREE = \$0
TAT: ~4 days
Quality: 10/10

Fee Computation for Google MT w/ Customization

AutoML*
translation

User
content

Total
Charge

25¢/page or 8¢/word	×	# of pages or words	=	Total Charge
------------------------	---	------------------------	---	-----------------

Charges per formatted page
or unformatted text

First 500K
characters per
month FREE

\$300 credit
FREE TRIAL

Common page is
1600 characters

Could use for
all your AutoML
or any testing
or tinkering or
any combo

$500,000 \div 1600 =$
312.5 pages

* Auto Machine Learning

Sample Fee Computation for Google—DISTRICT

AutoML
training

$\$45/\text{hour} \times$
 $2 \text{ hours} =$
 $\$90$

Hourly fee up to
\$300 maximum

1,000 pairs of
glossary terms

ONE-TIME
ONLY

AutoML
translation

+

Google: $25\text{¢}/\text{page}$
or $8\text{¢}/\text{word}$

Charges per formatted page
or unformatted text

×

User
content

100 pages
unformatted

**First 500K
characters per
month FREE**

Common page is
1600 characters

$500,000 \div 1600 =$
312.5 pages

=

Total
Charge

$\$90$ first time
then FREE

100 pages
well within 500K
characters FREE

Always pay 25¢
per formatted
page

SO WHAT? Cost
of a photocopy

Sample Fee Computation for Google—AREA

AutoML* translation		User content		Total Charge
25¢/page <u>or</u> 8¢/word	×	100 pages formatted	=	\$25/quarter

Charges per formatted page
or unformatted words

Can have both types in one
month

DOCX, XSLX,
PDF

Returns formatted
document

Better results with
DOCX or XSLX
than PDF

Can your Area
afford \$25/quarter
(or less) for
accurately
translated
documents???

(still good to have
a human read
them, but vastly
superior to current
practices)

* Auto Machine Learning

Complicated Fee Computation for Microsoft

azure.microsoft.com/en-us/pricing/details/cognitive-services/translator/

Free tier for 12 months	Monthly Azure Services	User content	Total Charge
≤2 MM chars/mo (~1250 pages)	\$1.59/mo for 1st year	\$0 if <~1250 pages/mo	\$1.59/mo for 1st year

Std. Translation

- Text Translation
- Language Detection
- Bilingual Dictionary
- Transliteration

Custom Translation

- Training

Storage: 32GiB \$1.54/mo
+\$0.05/10,000 storage transactions

Additional Services may be necessary

Online pricing estimator

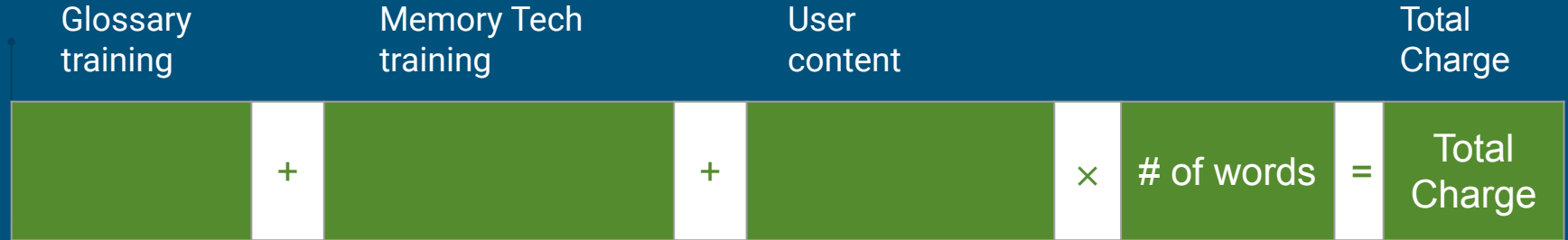
2MM FREE characters per month for 1st year
≈ 1250 pages/mo

Std.: \$10-15/
10MM characters
Custom: \$10/1MM characters training (max \$300) + \$40/10MM characters + \$10/mo/model/region

\$200 FREE Trial

I may not be reading it right—it's obtuse

Fee Computation for TransPerfect



10,000,000 pairs
of glossary terms

ONE-TIME
ONLY

Words that are already in
the Glossary or the
Translation Memory are
not charged again!

Placeholder

COMING SOON

Fees for Translate.com

~300 words/pg EN \approx 375 words/pg ESP
 ~300 words/pg EN \approx 360 words/pg FR
 10,000/375 \approx 26 pages/month 7,000/375 \approx 18 pages/month

START	PREMIUM	PRO	BASIC
For one-time orders or for testing our translation	Minimum price for high-volume translations	Suitable for 85% companies	Our most affordable plan
\$0.07 /word	25000 ^{WORDS} /mo	10000 ^{WORDS} /mo	7000 ^{WORDS} /mo
<ul style="list-style-type: none"> ✓ No monthly payment ✓ Unlimited words 	<ul style="list-style-type: none"> ✓ \$0.03/word ✓ \$0.05/word over limit ✓ 24/7 Support 	<ul style="list-style-type: none"> ✓ \$0.036/word ✓ \$0.05/word over limit 	<ul style="list-style-type: none"> ✓ \$0.04/word ✓ \$0.05/word over limit
	\$750 /mo	\$360 /mo	\$280 /mo

Effective price per word	\$0.07	\$0.03	\$0.036	\$0.04
Overage price per word	\$0.07	\$0.05	\$0.05	\$0.05
Translators level	Basic	First-class	Premium	Advanced
Billing period		monthly	monthly	monthly

Sample Fee Computation for “BEST” Option

TMS/CAT Tool (Glossaries, Style Guides, Translation Memory included) + Professional Translation by ISO Certified Linguists

English > Spanish	Price
New Words	\$0.11/word
Fuzzy/Partial Match Words	\$0.04/word
100% Match/Repetitions	FREE

Consistency is critical to carrying THE message

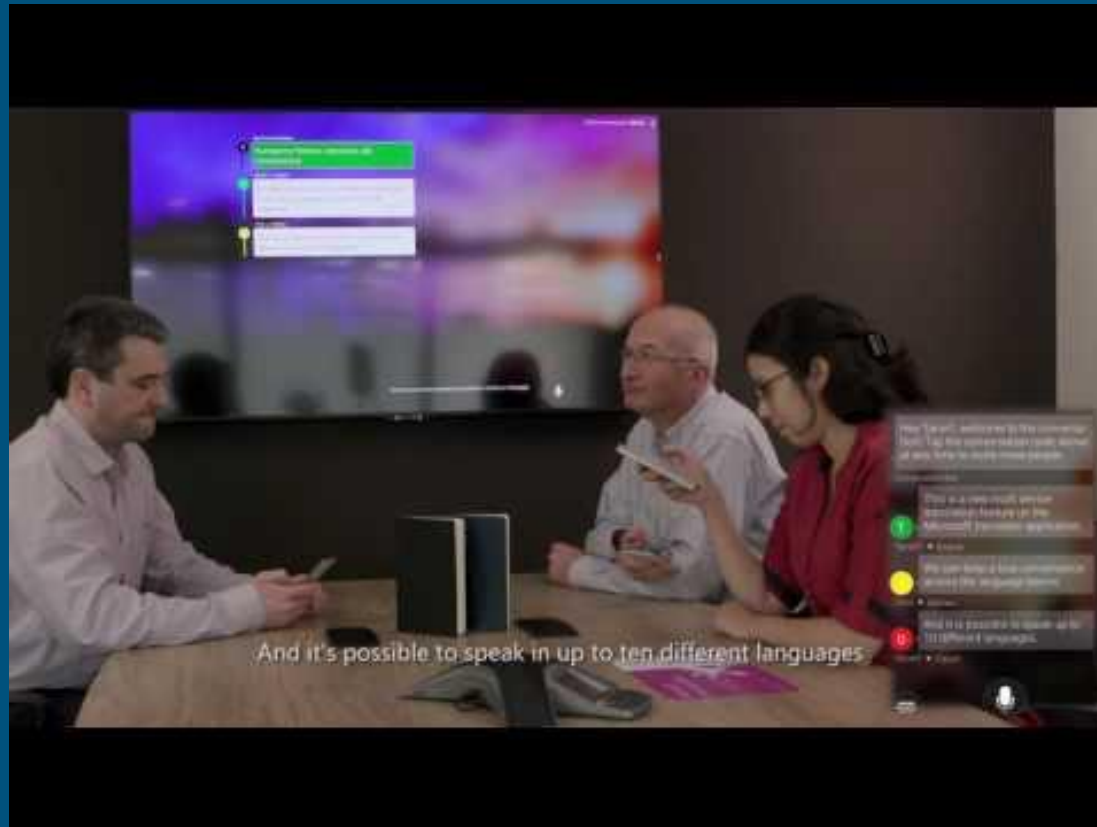
Technology can help!

1. Improve text quality and consistency via:
 - a. glossaries
 - b. style guides
 - c. translation memory database
2. Save costs drastically
3. Reduce turnaround times
4. Facilitate review by members around the world

Meeting Interpretation Technology

Speech-to-Speech

Meeting Interpretation Technology

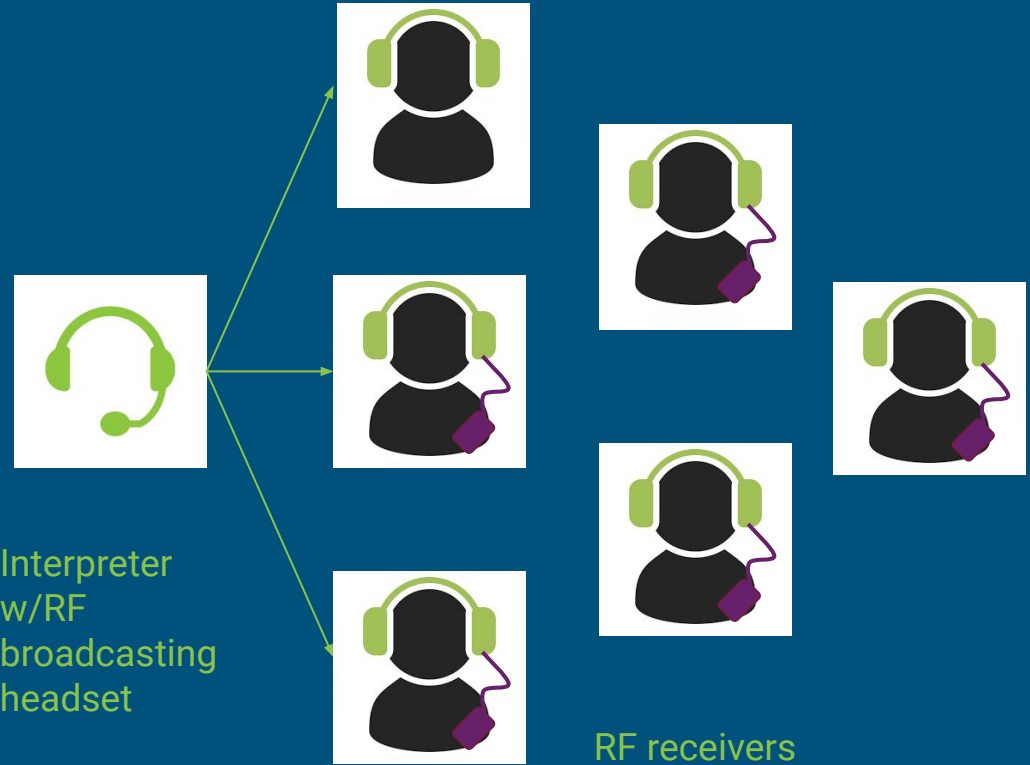


Meeting Interpretation

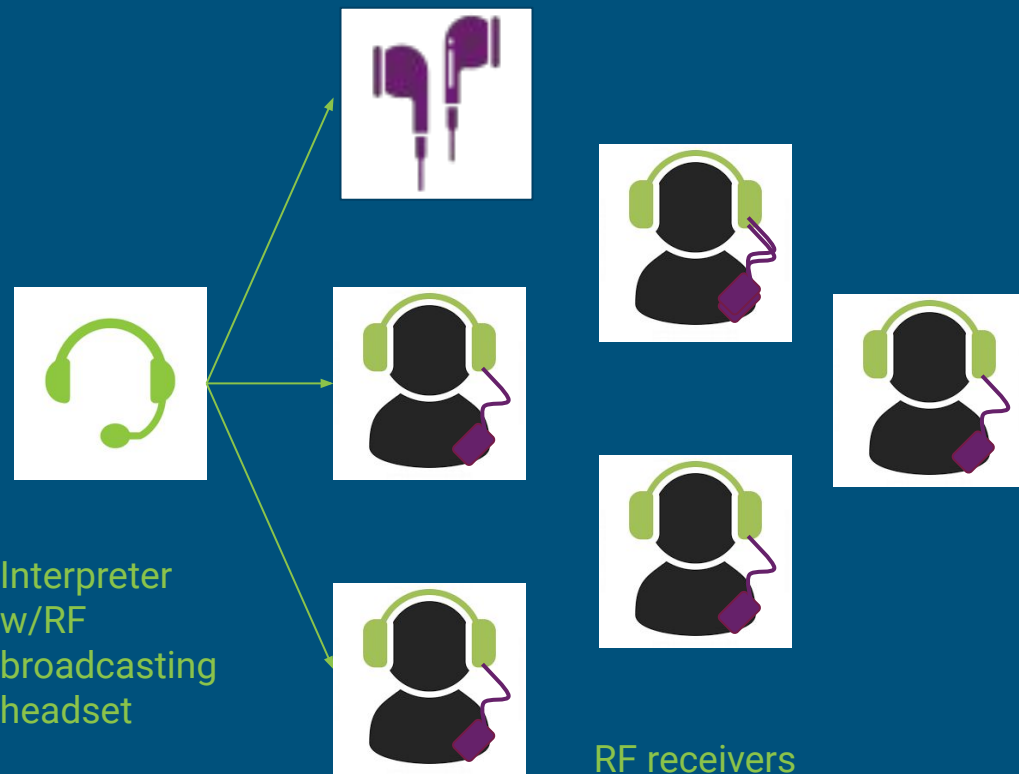
- What
- Who
- How
- How much
- How good

What: Area assemblies, District meetings, speaker meetings & even conversations

Meeting Interpretation Technology	
	Current/Recent
Who	Multilingual Committee
How	RF receivers with headsets. Come with multiport USB chargers for the receivers
How much	Cost of headsets for interpreters and listeners: \$99 for 1 + 5; \$600 for 1 + 10
How good	As good as your Multilingual Committee



Meeting Interpretation Technology	
	Current/Recent
Who	Multilingual Committee
How	RF receivers with headsets. Come with multiport USB chargers for the receivers
How much	Cost of headsets for interpreters and listeners: \$99 for 1 + 5; \$600 for 1 + 10
How good	As good as your Multilingual Committee



Meeting Interpretation Technology		
	Current/Recent	Good
Who	Multilingual Committee	Multilingual Committee
How	RF receivers with headsets	Listen through phone & earbuds via dial-in to service; Interpreter uses headset
How much	Cost of headsets for interpreters and listeners	Cost of headsets for interpreters
How good	As good as your Multilingual Committee	As good as your Multilingual Committee



Interpreter to dial-in

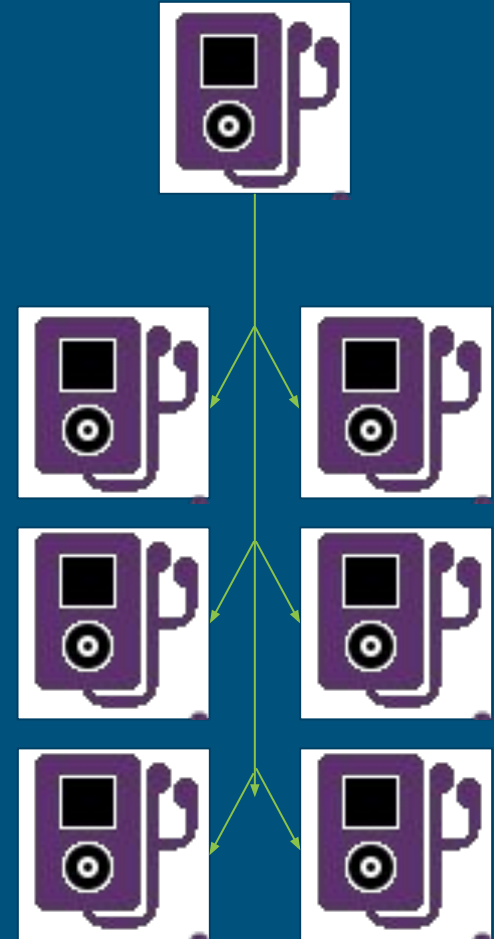


phones / earbuds

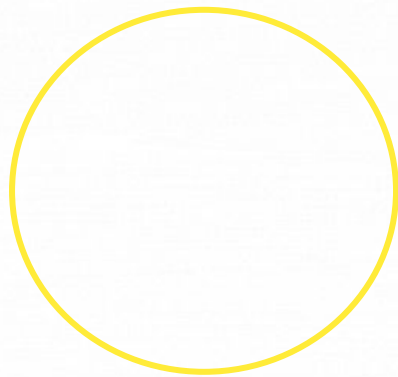
Meeting Interpretation Technology			
	Current/Recent	Good	Better*
Who	Multilingual Committee	Multilingual Committee	Google Translate, MS Translator
How	RF receivers with headsets	Listen through phone & earbuds via dial-in to service; Interpreter uses headset	Via phone at translate.it for up to 100 participants
How much	Cost of headsets for interpreters and listeners	Cost of headsets for interpreters	Free
How good	As good as your Multilingual Committee	As good as your Multilingual Committee	Ask after Oct 1-2 SETA Assembly

phones + earbuds →
phones + earbuds

*Your Multilingual Committee may provide better quality. This is free and allows them to participate in the meeting.



Speech-to-Speech Interpretation



Speech Cleanup

Microsoft
Translator

ASR

True Text

Translation

Text to Speech



Raw ASR Output

um no i mean yes but i am i've never done it myself did users before uh I will ask go deep to help me



Customization
and Personalization

um no i mean yes but i am i've never done it myself did users before uh I will ask **gurdeep** to help me



Lattice Rescoring

um no i mean yes but i am i've never done it myself **did you use yours** before uh I will ask gurdeep to help me



Disfluency Removal

~~no i mean~~ yes but ~~i am~~ i've never done it myself did you use yours before ~~uh~~ I will ask gurdeep to help me



Segmentation
Punctuation and
True Casing

Yes.
But I've never done it myself.
Did you use yours before?
I will ask Gurdeep to help me.

Euh non, je veux dire oui mais je suis je suis je l'ai jamais fait moi-même fait utilisateurs avant euh je vais demander à aller profond pour m'aider



Oui.
Mais je ne **l'ai jamais** fait moi-même.
Avez-vous utilisé le vôtre **avant**?
Je vais demander à Gurdeep de m'aider.



Meeting Interpretation Technology—In Person

	Current/Recent	Good	Better	Best
Who	Multilingual Committee	Multilingual Committee	Google Translate, MS Translator	Paid, certified interpreters
How	RF receivers with headsets	Listen through phone & earbuds via dial-in to service; Interpreter uses headset	Via phone at translate.it for up to 100 participants	Use phone & earbuds via dial-in service; Interpreter uses headset
How much	Cost of headsets for interpreters and listeners	Cost of headsets for interpreters	Free	\$65+/hour local freelancer \$250-\$400/hour on demand; minimum hours may apply
How good	As good as your Multilingual Committee	As good as your Multilingual Committee	Ask after Oct 1-2 SETA Assembly	Should be excellent if interpreter(s) familiar with AA lingo

Meeting Interpretation Technology—Virtual

	Current/Recent	Good	Better	Best
Who	Multilingual Committee			Paid, certified interpreters
How	Special login for interpreter; listen through interpretation channel			Special login for interpreter; listen through interpretation channel
How much	Google Meet FREE Skype Zoom \$55/mo			\$65+/hour local freelancer \$250-\$400/hour on demand; minimum may apply
How good	As good as your Multilingual Committee			Should be excellent if interpreter(s) familiar with AA lingo

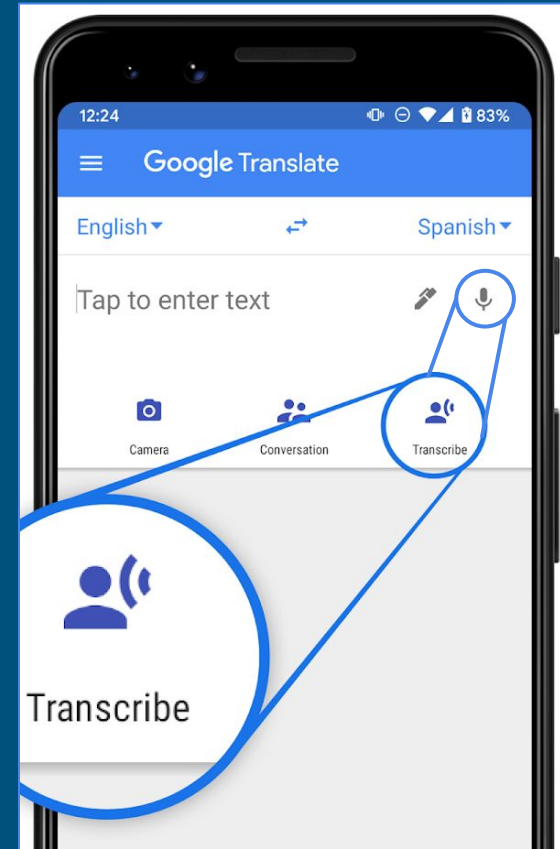
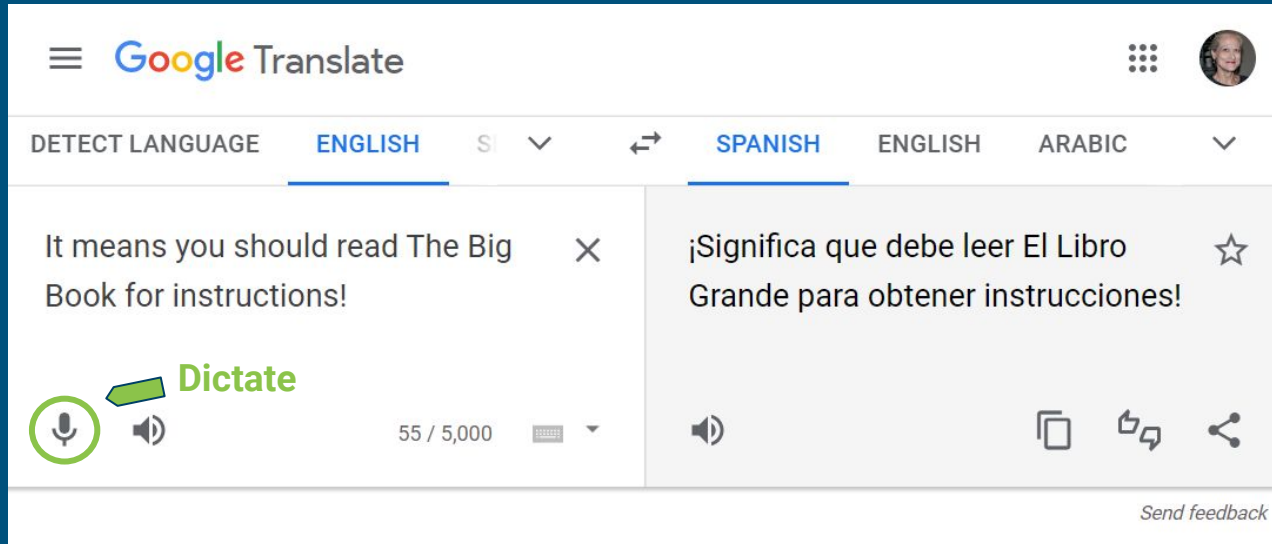
Haven't seen pure speech-to-speech technology for virtual platforms

Speech-to-text as closed captions or transcription is available

Meeting Interpretation Technology

Speech-to-Text

Google – Speech-to-Text



11th Tradition RE-WARNING!!! Speech-to-Speech

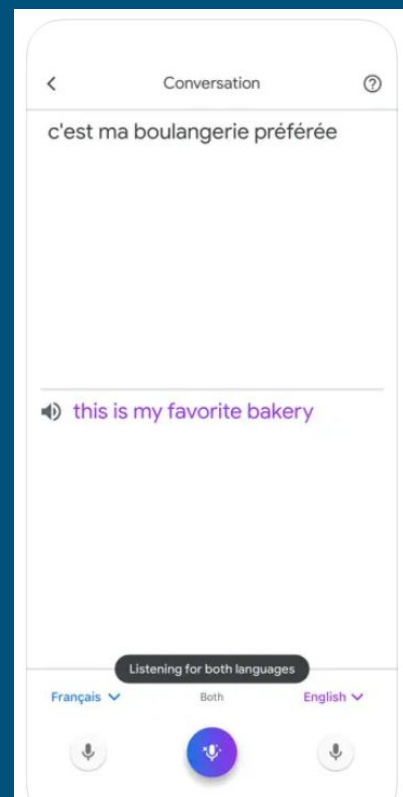
Google Translate acquires ownership of any information that it translates under its official terms and conditions; other platforms may have the same issue.

- Anonymity risks
 - Our last names are already all over the internet and this is a way to put more there.
 - Probably not grave *yet* because we don't search for speech *yet*.

Moral of the Story: Advise your speakers NOT to give their last names nor those of living members.

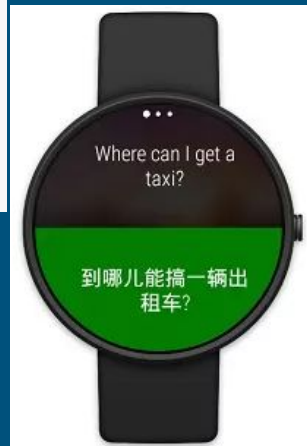
Google – Speech-to-Speech for Individuals

- Available only for phones & tablets

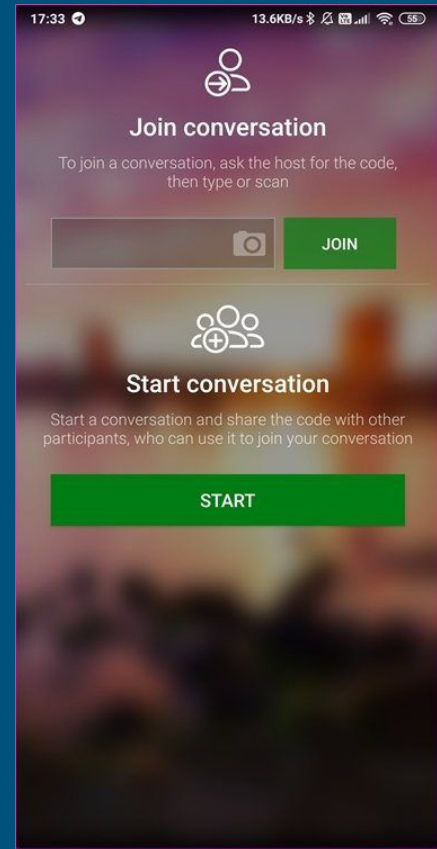
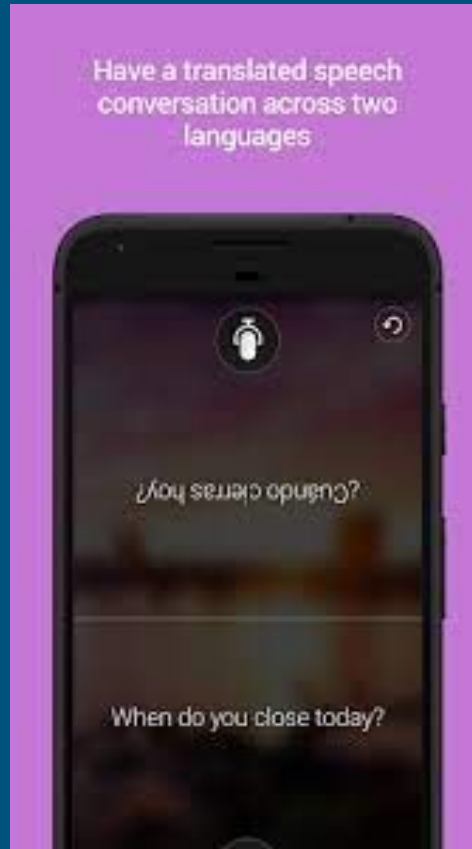


MS Translator – Interpretation

The screenshot shows the MS Translator web interface. At the top, there are tabs for "Translate", "History", "Conversation", and "Phrasebook". The "Conversation" tab is active. On the left, there is a "Leave" button. The main area displays a conversation with a background image of a misty forest. The conversation starts with a bot (C) saying "Hey Charlotte, welcome to the conversation. Conversation bot • English". Then, Victor (V) asks "Hello how are you doing? Bonjour, comment allez-vous ? Victor • French". The bot responds with "Very well, thank you. I'm happy to speak to you today. You". Victor then asks "Me too. When are you going to visit the park? Moi aussi. Quand allez-vous visiter le parc ? Victor • French". At the bottom, there is a text input field with the instruction "Press and hold Ctrl + Spacebar to speak or type a message" and a microphone icon. On the right side, there is a "Conversation code: CPEIL" and a "Participants" list showing "Charlotte (You) English" and "Victor French". A "Conversation Settings" gear icon is at the bottom right.



MS Translator – Interpretation



11th Tradition RE-RE-WARNING!!! Speech-to-text

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- Anonymity risks
 - Transcripts are easily uploaded to the internet and become searchable.
 - Last names are *very* interesting to machine translation researchers.

Moral of the Story: Advise your speakers NOT to give their last names nor those of living members

What you can do to help

Techies:

- Write the code for a collaborative glossary that can reconcile differences
- Wrangle the APIs to integrate our glossaries, style guides & translation memory
- Help your Multilingual Committees as they figure out how they can use technology to better serve the non-English speakers

Multilinguals:

- Gather *accurate* translations for the translation memory
- Identify inaccurate translations to exclude from the database
- Contribute to review efforts
 - Documents that have been through machine translation
 - Glossaries
 - Literature

What you can do to help

Agenda Item, Motion & Report Submitters:

- Submit accurate translations in all the appropriate languages
 - For the GSC, submit in English, French & Spanish
 - For your Area, submit in all its languages

Reviewers & Collaborators:

- Use cloud storage and collaborative documents so that efforts aren't wasted because team members are working on different versions of the same document
 - Consider Google for Non-profits if you don't have another solution

What you can do to help

Everyone:

- Spread the word that language technology & pricing has come a *long* way in the last decade
- Encourage your Area to team up with other Areas on Glossary development & translation efforts
- Reach out to fellow alcoholics who don't speak English

Everyone:

- If you can't produce accurate translations, submit docs to your Multilingual Committee far enough in advance that they don't have to scramble
- Support Area and District efforts to achieve better translations
 - Tell your Delegate you care
 - Be quiet during interpretation – it makes a lot of difference!

The Big Book is currently
published in more than
90 languages with
more in progress

AAWS publishes in **100+**
languages counting all
literature



Let's carry an
accurate message
to everyone

without breaking the bank

Q & A

Even *more* Questions?

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Thank you