



# 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

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

Doc



Internet



Web Translator



End Doc



## Pro Tip:

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

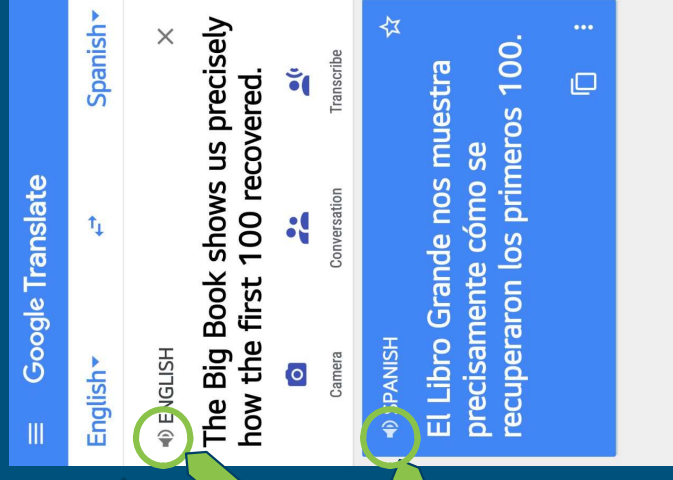
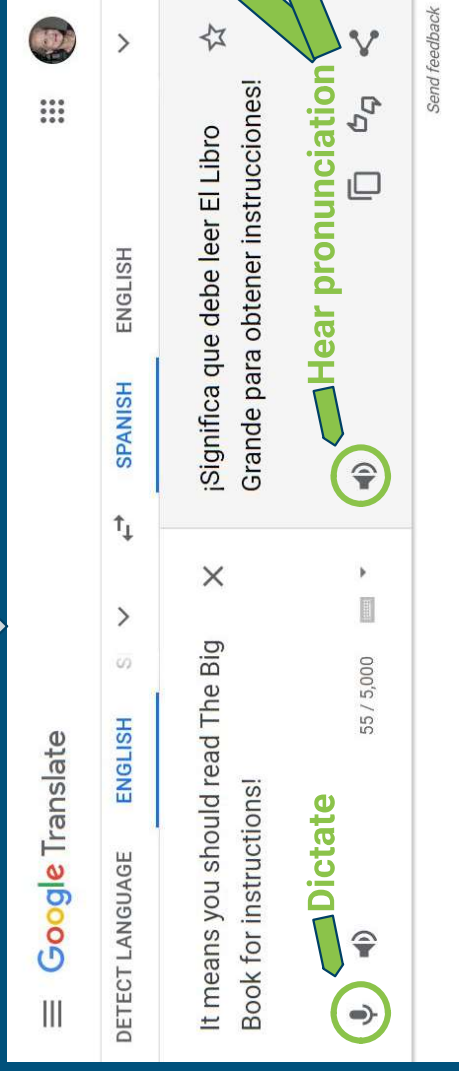
(It's not fair to expect a good translation of a wrong word!)

# Google Translate



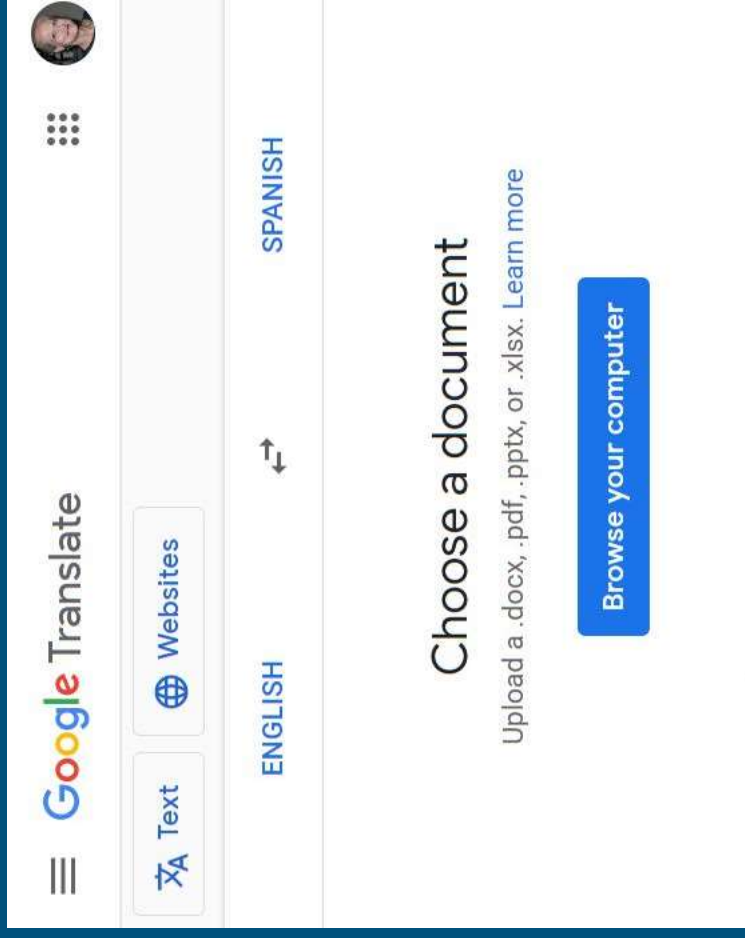
Laptop ↗

Phone →



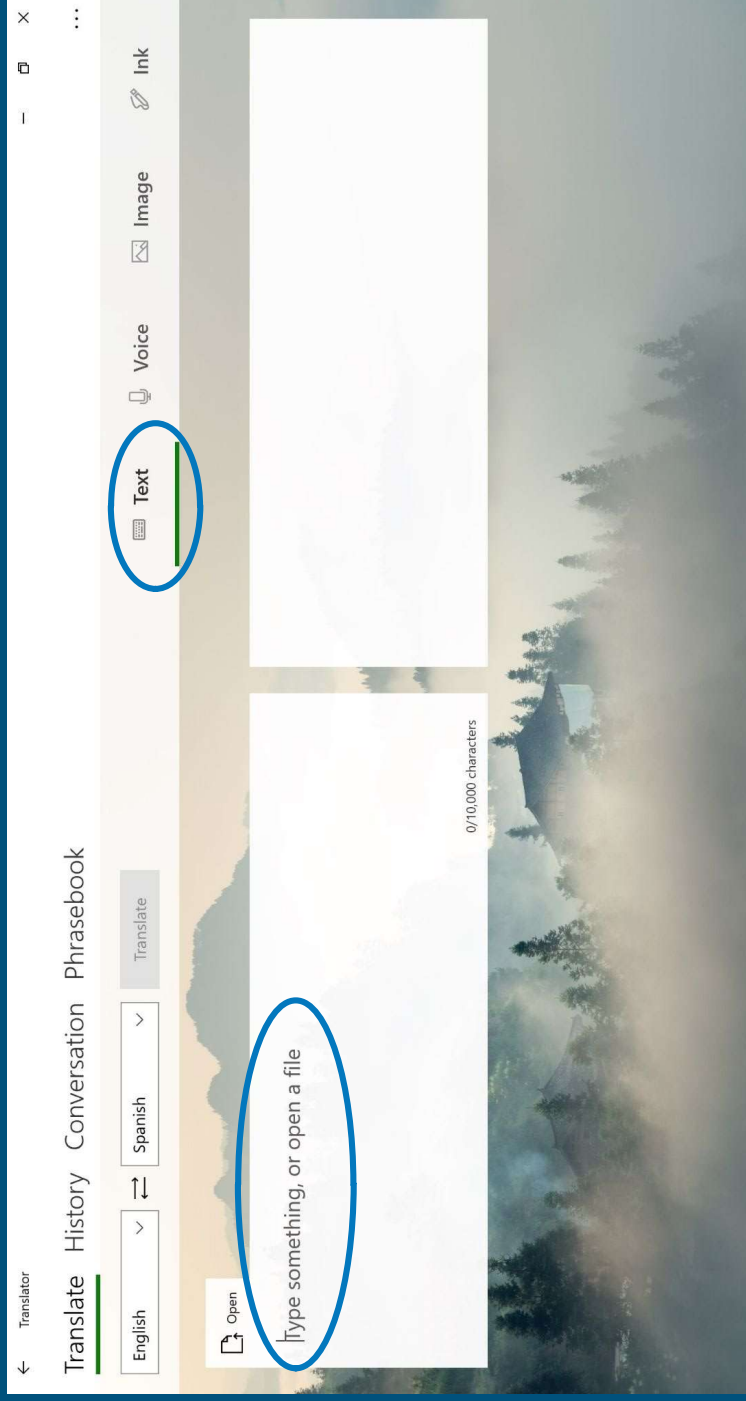
# Google Translate Documents

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



# MS Translator

[www.microsoft.com/en-us/translator/](http://www.microsoft.com/en-us/translator/)



# How It Works: The AI Translation Version

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**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

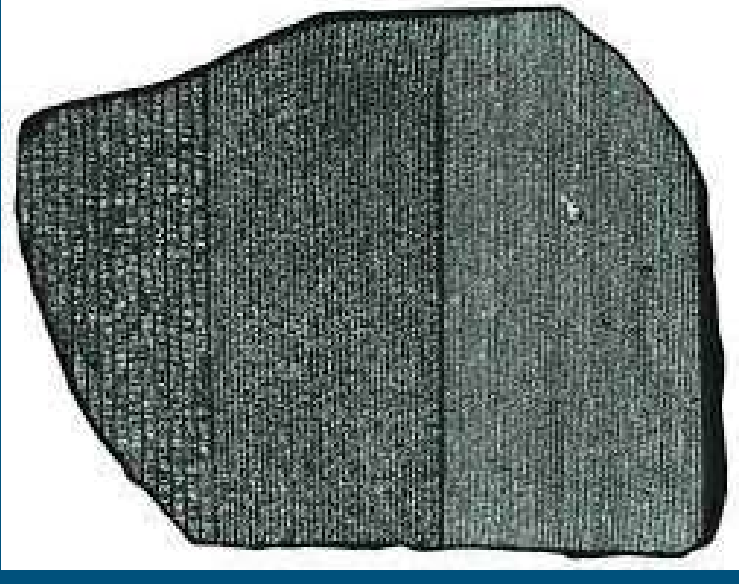
**Horror story:** A \$43B Norwegian oil company used Translate.com, a free online tool, to translate notices of dismissal, plans of workforce reductions and outsourcing, passwords, code information, and contracts, only to find the translation of all of this sensitive material was later discoverable via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

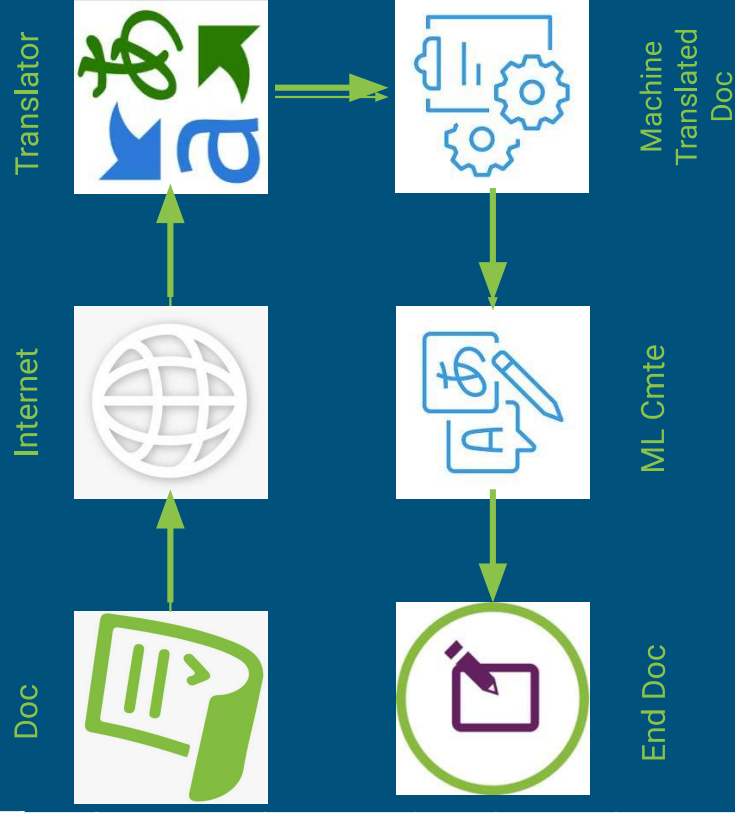
# Statistical Machine Translation (SMT)

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

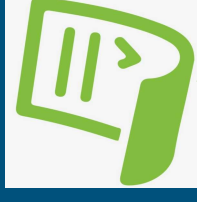




# Translation Management System (TMS)

- **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

Doc



+



Glossary



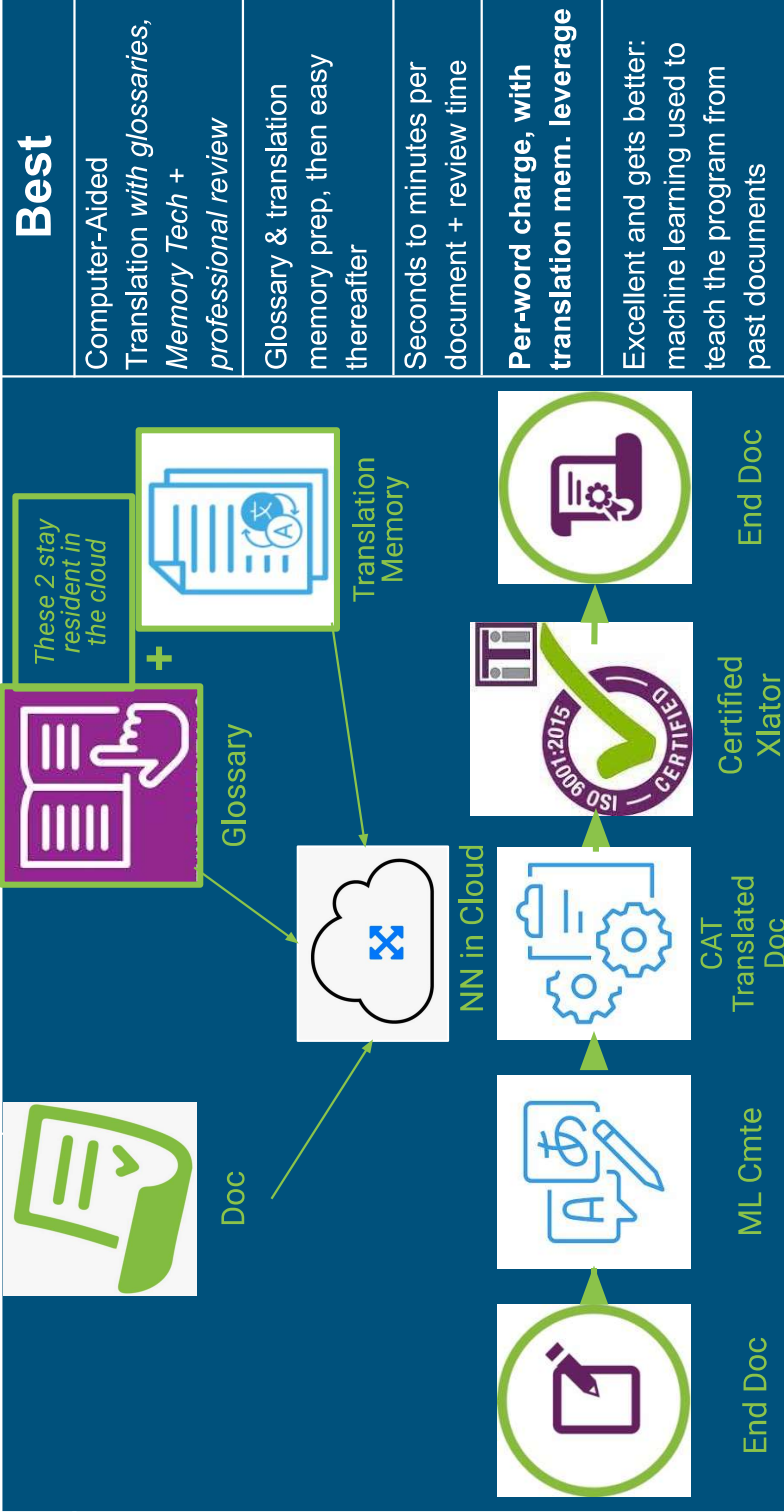
Internet

Certified Xlator

End Doc

Literature Translation Technology			
Issues	Current/Recent	Good	Better
<b>Who</b>	Google Translate, MS Translator	#1 + human editing by Multilingual Cmte	Paid, certified translators w/ <i>glossary</i>
<b>How</b>	Quick & easy: run document through on website	#1 + send to Multilingual Cmte in advance	Create glossary in advance; send documents well before needed
<b>How long</b>	Minutes	Days or Weeks	Days, Weeks or Months (affects cost)
<b>How much</b>	FREE	FREE	Priced on per-word basis ES: \$0.01 - \$0.05/word FR: \$0.02 - \$0.07/word
<b>How good</b>	[Regional travel] pool = <i>swimming pool</i>   Chair = <i>recliner</i>   Presidente del comité--but <b>NO presidents</b> 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

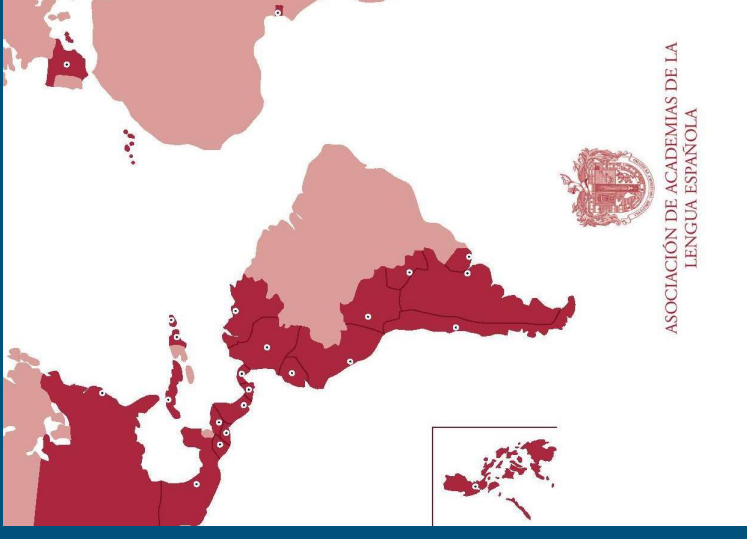
# Literature Translation Technology

<b>Issues</b>	 <p>The diagram illustrates the Literature Translation Technology process flow. It starts with an 'End Doc' (document icon) on the left. An arrow points to a 'Doc' (document icon). From 'Doc', an arrow points to 'NN in Cloud' (cloud icon). From 'NN in Cloud', an arrow points to 'ML Cmte' (document with dollar sign and pencil icon). From 'ML Cmte', an arrow points to 'CAT Translated Doc' (document with gears icon). From 'CAT Translated Doc', an arrow points to 'Certified Xlator' (ISO 9001:2015 CERTIFIED logo). From 'Certified Xlator', an arrow points to 'End Doc' (document with gear icon). A separate path shows 'Glossary' (book icon) and 'Translation Memory' (document with 'A' and 'X' icons) both pointing to 'NN in Cloud'. A box labeled 'These 2 stay resident in the cloud' encompasses the Glossary and Translation Memory icons. A plus sign is between the Glossary and Translation Memory icons.</p>				
<b>Who</b>	<p><b>Best</b></p> <p>Computer-Aided Translation with glossaries, Memory Tech + professional review</p> <p>Glossary &amp; translation memory prep, then easy thereafter</p> <p>Seconds to minutes per document + review time</p> <p><b>Per-word charge, with translation mem. leverage</b></p> <p>Excellent and gets better: machine learning used to teach the program from past documents</p>				
<b>How</b>					
<b>How long</b>					
<b>How much</b>					
<b>How good</b>					

# 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

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- 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](#)

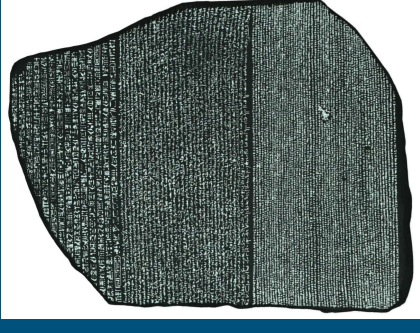
## 3ª ED. TRANSLATED BACK godfather / godmother

- 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 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	Conféncia de Servicios Generales	Conféncia 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](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

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# 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



Charges per formatted page  
or unformatted text

First 500K  
characters per  
month FREE

Common page is  
1600 characters

500,000 ÷ 1600 =  
312.5 pages

\$300 credit  
FREE TRIAL

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

\* Auto Machine Learning

# Sample Fee Computation for Google-DISTRICT

AutoML training	+	AutoML translation	x	User content	=	Total Charge
<p>\$45/hour x 2 hours = \$90</p> <p>Hourly fee up to \$300 maximum</p> <p>1,000 pairs of glossary terms</p> <p><b>ONE-TIME ONLY</b></p>		<p>Google: 25¢/page or 8¢/word</p> <p>Charges per formatted page or unformatted text</p>		<p>100 pages unformatted</p> <p><b>First 500K characters per month FREE</b></p> <p>Common page is 1600 characters</p> <p>500,000 ÷ 1600 = 312.5 pages</p>		<p>\$90 first time then FREE</p> <p>100 pages well within 500K characters FREE</p> <p>Always pay 25¢ per formatted page</p> <p>SO WHAT? Cost of a photocopy</p>

# Sample Fee Computation for Google--AREA

AutoML* translation		User content	Total Charge
25¢/page or 8¢/word	x	100 pages formatted	= \$25/quarter
Charges per formatted page or unformatted words		DOCX, XSLX, PDF	Can your Area afford \$25/quarter (or less) for accurately translated documents???
Can have both types in one month		Returns formatted document	(still good to have a human read them, but vastly superior to current practices)
		Better results with DOCX or XSLX than PDF	

\* Auto Machine Learning

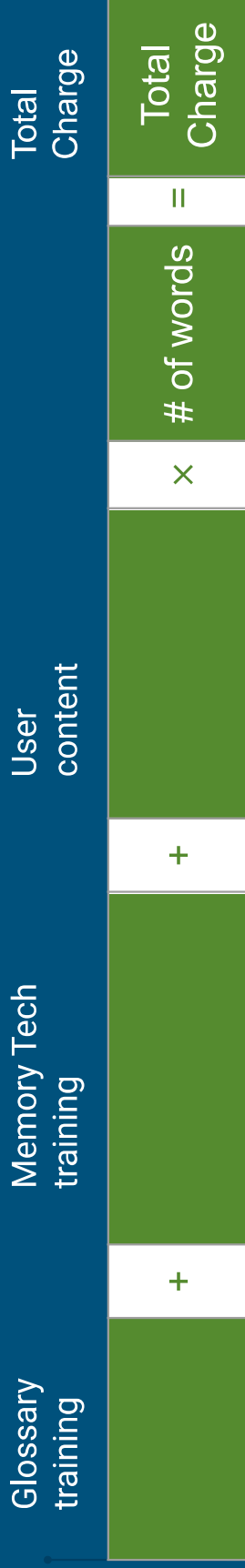


# Complicated Free Computation for Microsoft

[azure.microsoft.com/en-us/pricing/details/cognitive-services/translator/](https://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
		+	=
<u>Std. Translation</u> <ul style="list-style-type: none"> <li>• Text Translation</li> <li>• Language Detection</li> <li>• Bilingual Dictionary</li> <li>• Transliteration</li> </ul> Custom <u>Translation</u> <ul style="list-style-type: none"> <li>• Training</li> </ul>	Storage: 32GiB \$1.54/mo +\$.05/10,000 storage transactions  Additional Services may be necessary  Online pricing estimator	2MM FREE characters per month for 1st year ≈ 1250 pages/mo  <u>Std.</u> : \$10-15/10MM characters <u>Custom</u> : \$10/1MM characters training (max \$300) + \$40/10MM characters + \$10/mo/model/region	\$200 FREE Trial  <i>I may not be reading it right—it's obtuse</i>

# 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

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

# Fees for Translate.com

	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
	<b>\$0.07 /word</b>	<b>25000</b> <sup>WORDS</sup> /mo	<b>10000</b> <sup>WORDS</sup> /mo	<b>7000</b> <sup>WORDS</sup> /mo
	<ul style="list-style-type: none"> <li>✓ No monthly payment</li> <li>✓ Unlimited words</li> </ul>	<ul style="list-style-type: none"> <li>✓ \$0.03/word</li> <li>✓ \$0.05/word over limit</li> <li>✓ 24/7 Support</li> </ul>	<ul style="list-style-type: none"> <li>✓ \$0.036/word</li> <li>✓ \$0.05/word over limit</li> </ul>	<ul style="list-style-type: none"> <li>✓ \$0.04/word</li> <li>✓ \$0.05/word over limit</li> </ul>
		<b>\$750 /mo</b>	<b>\$360 /mo</b>	<b>\$280 /mo</b>
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**

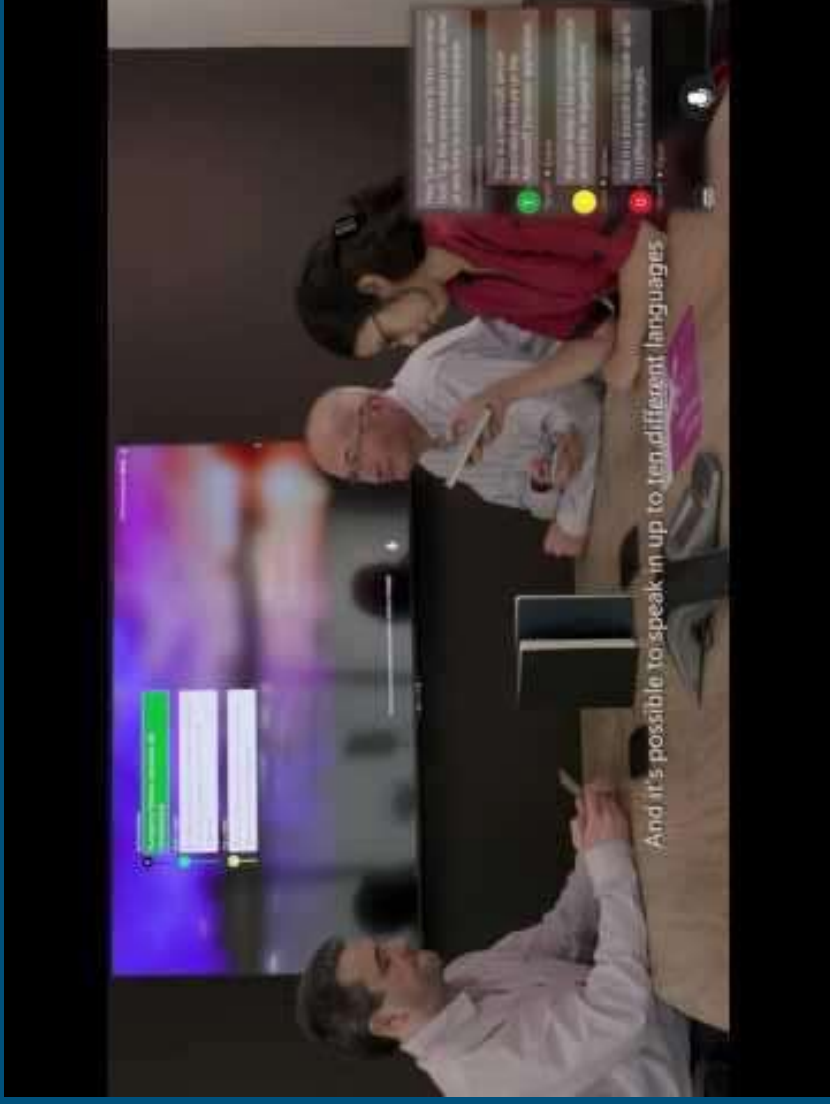
## **Technology can help!**

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



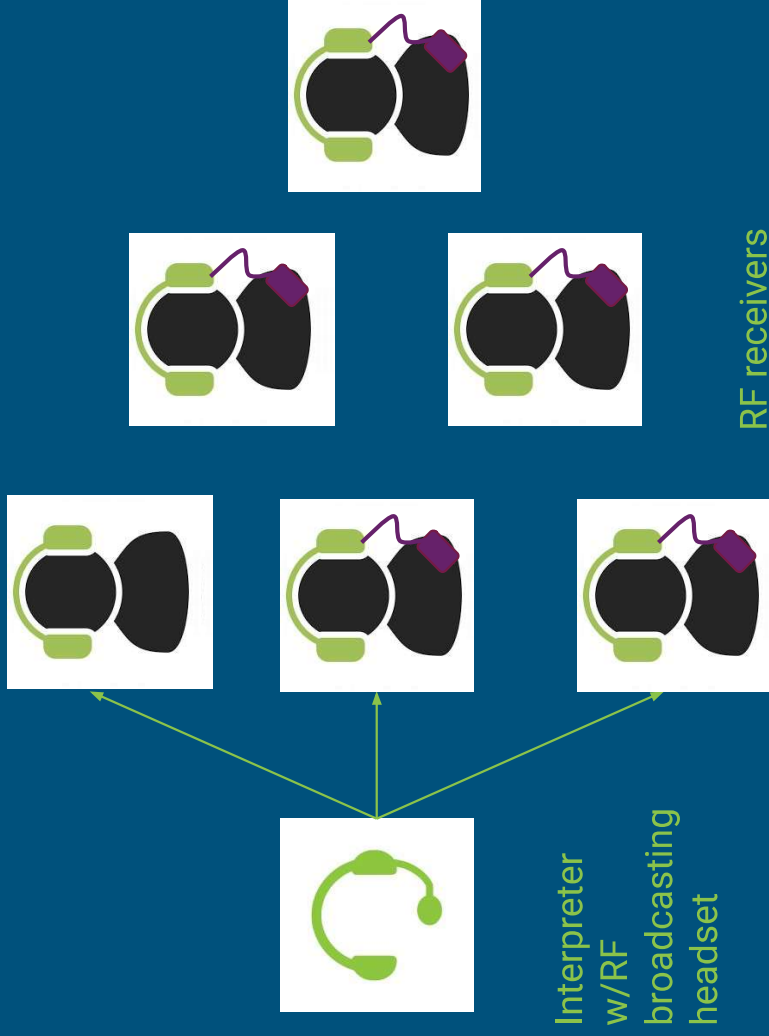
# Meeting Interpretation

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

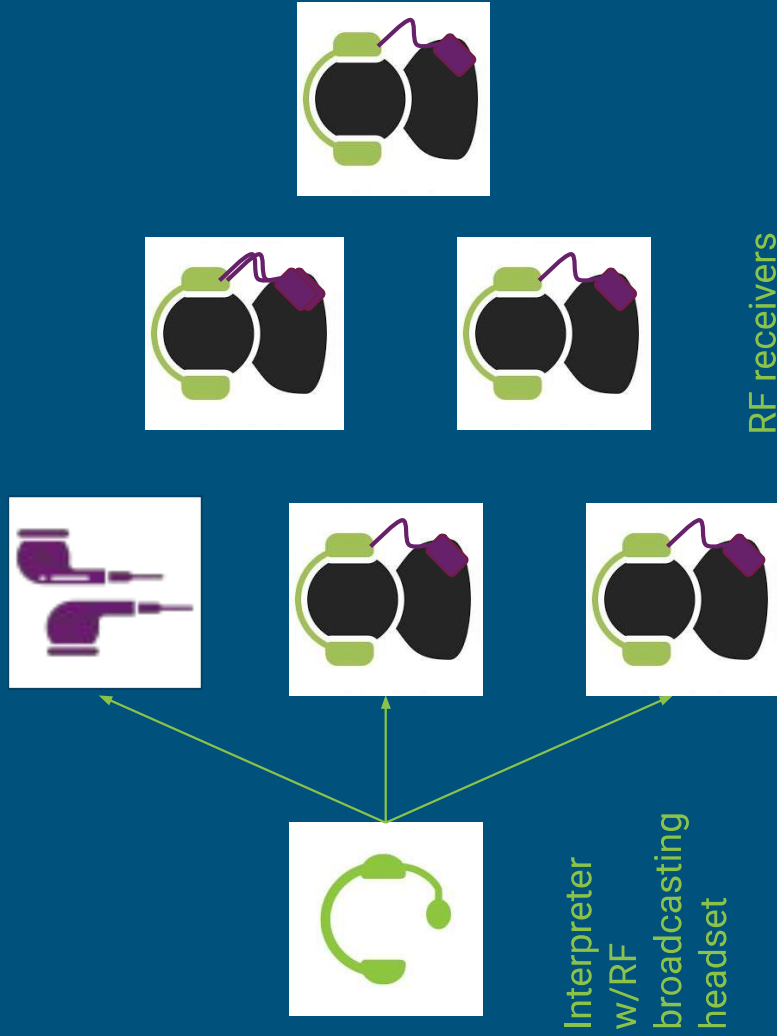
What: Area assemblies, District meetings, speaker meetings & even conversations



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

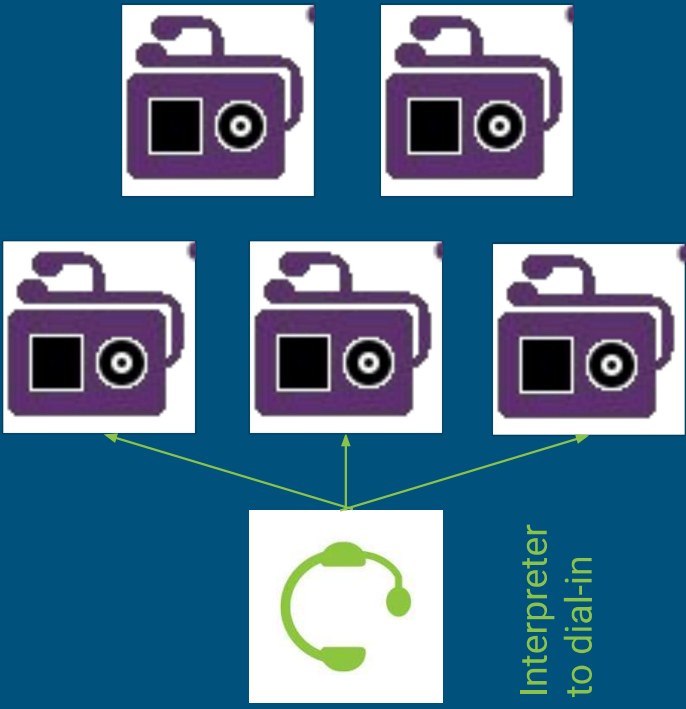


Meeting Interpretation Technology	
	Current/Recent
Who	Multilingual Committee
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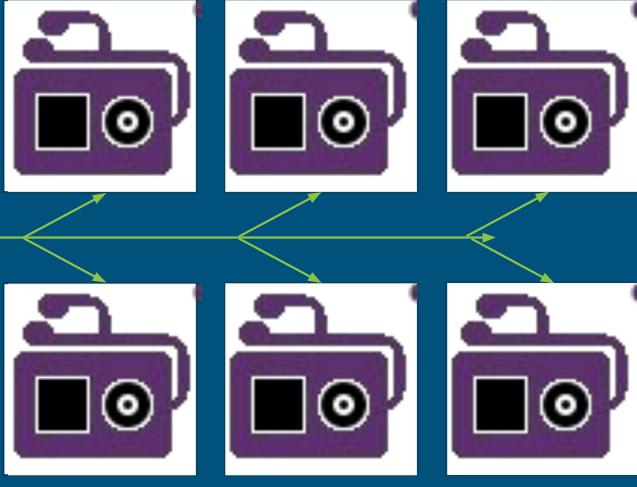


# Meeting Interpretation Technology

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



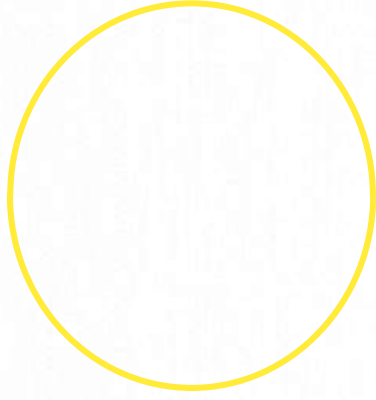
Meeting Interpretation Technology			
	Current/Recent	Good	Better*
<b>Who</b>	Multilingual Committee	Multilingual Committee	Google Translate, MS Translator
<b>How</b>	RF receivers with headsets	Listen through phone & earbuds via dial-in to service; Interpreter uses headset	Via phone at <a href="https://translate.it">translate.it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



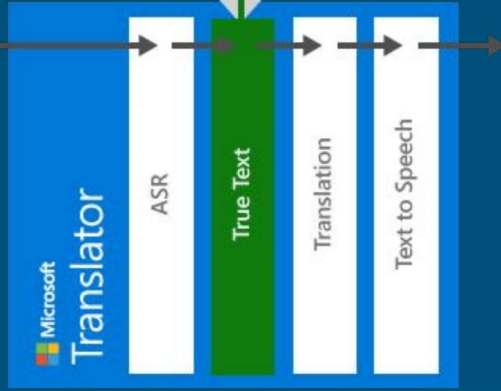
phones + earbuds →  
phones + earbuds

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

# Speech-to-Speech Interpretation



# Speech Cleanup



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
<b>Who</b>	Multilingual Committee	Multilingual Committee	Google Translate, MS Translator	Paid, certified interpreters
<b>How</b>	RF receivers with headsets	Listen through phone & earbuds via dial-in to service; Interpreter uses headset	Via phone at <a href="#">translate.it</a> for up to 100 participants	Use phone & earbuds via dial-in service; Interpreter uses headset
<b>How much</b>	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
<b>How good</b>	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

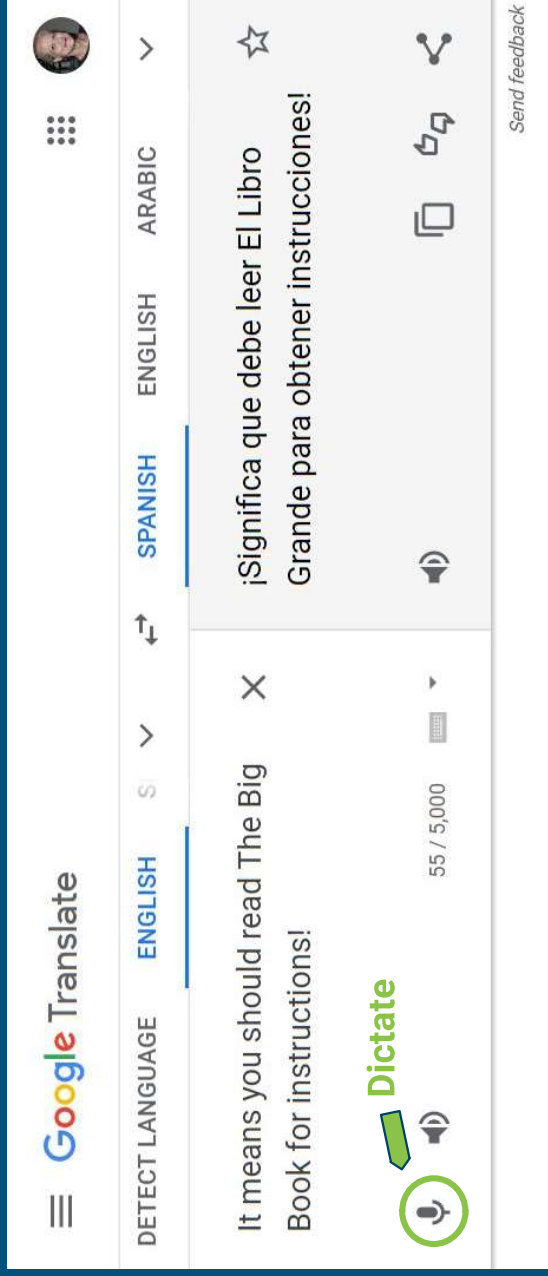
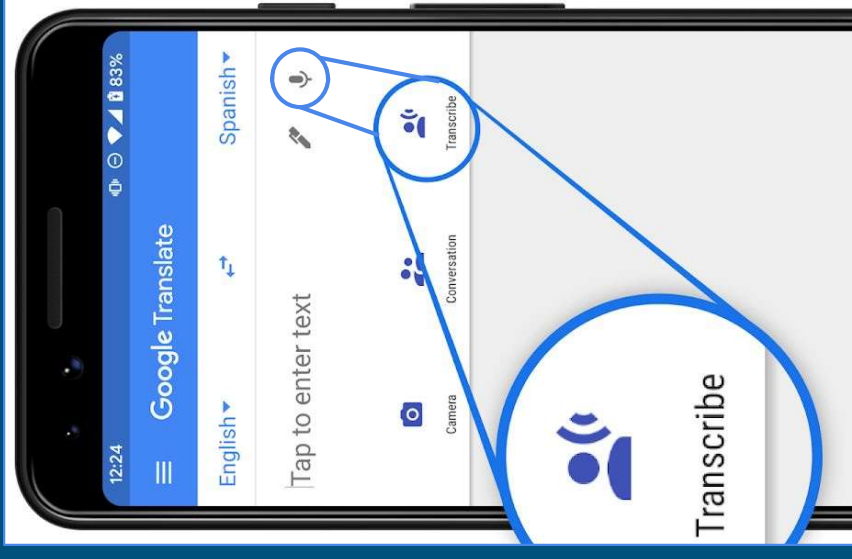
	Current/Recent	Good	Better	Best
<b>Who</b>	Multilingual Committee			Paid, certified interpreters
<b>How</b>	Special login for interpreter; listen through interpretation channel		Haven't seen pure speech-to-speech technology for virtual platforms	Special login for interpreter; listen through interpretation channel
<b>How much</b>	Google Meet FREE Skype Zoom \$55/mo		Speech-to-text as closed captions or transcription is available	\$65+/hour local freelancer \$250-\$400/hour on demand; minimum may apply
<b>How good</b>	As good as your Multilingual Committee			Should be excellent if interpreter(s) familiar with AA lingo



# Meeting Interpretation Technology

**Speech-to-Text**

# Google – Speech-to-Text



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

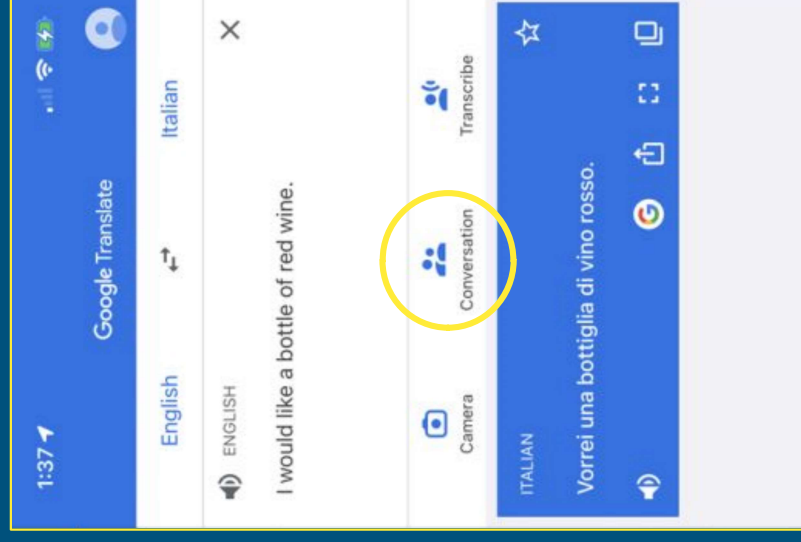
**Google Translate acquires ownership of any information that it translates** under its official terms and conditions; other platforms may have the same issue.

- 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.

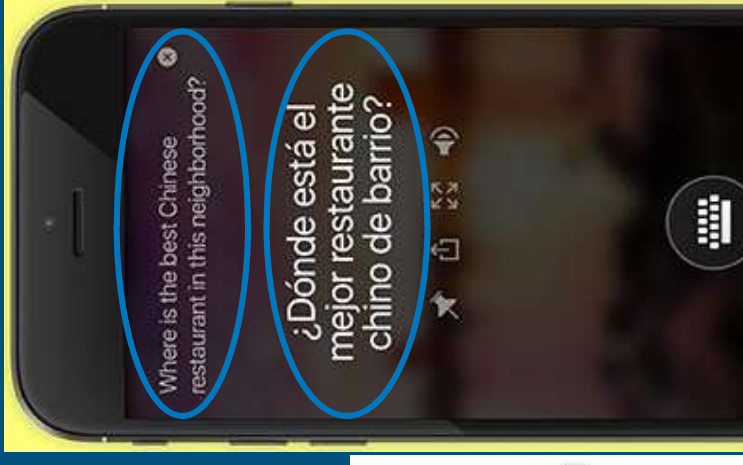
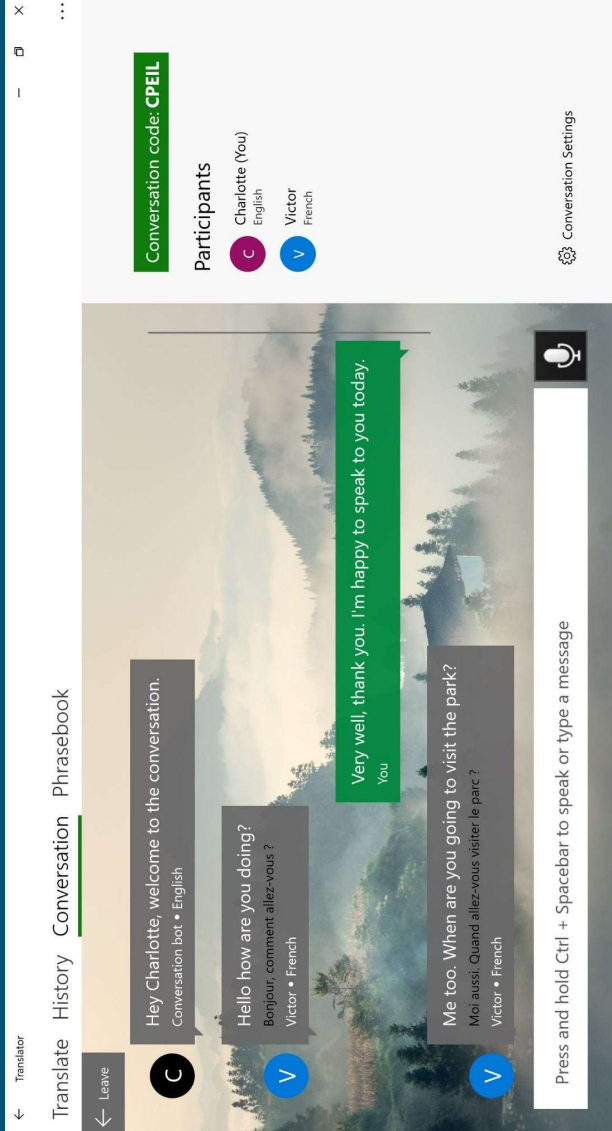
**Moral of the Story: Advise your speakers NOT to give their last names nor those of living members.**

# Google – Speech-to-Speech for Individuals

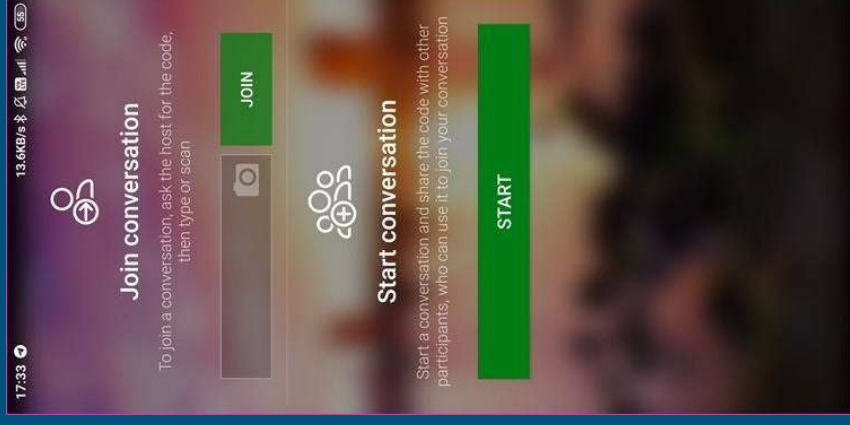
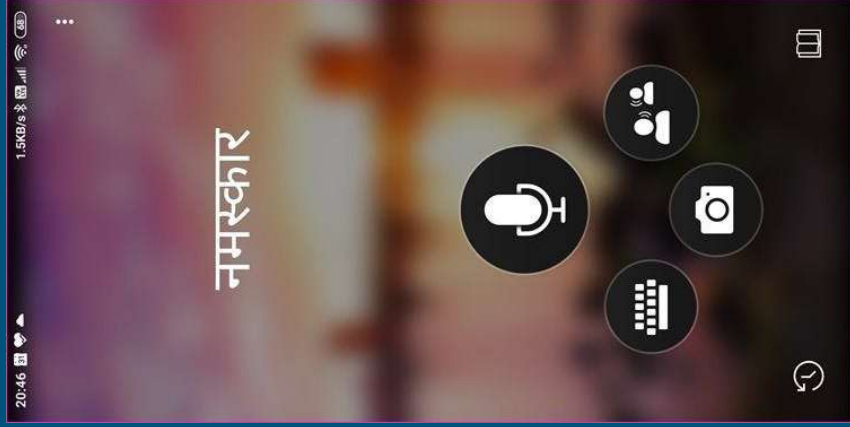
- Available only for phones & tablets



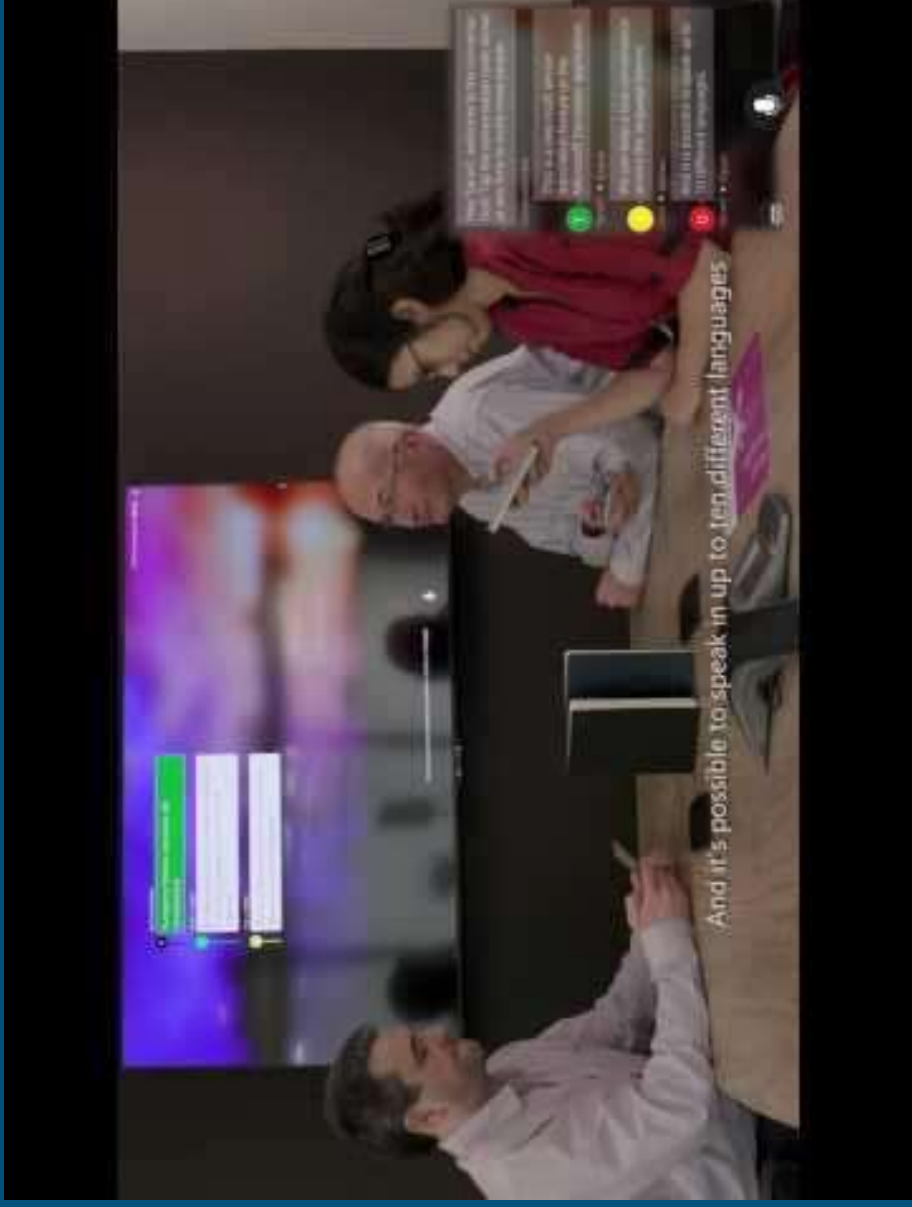
# MS Translator – Interpretation



# MS Translator – Interpretation



# MS Translator – Interpretation



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

**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
  - 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

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## 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

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## 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

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## 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

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Let's carry an  
accurate message  
to everyone  
without breaking the bank

# Q & A

# Even *more* Questions?

## Contact Information:

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Shannon O: [threelegaciesstudygroup@gmail.com](mailto:threelegaciesstudygroup@gmail.com)

Thank you