

## MOTIVATION



### Health Literacy

the ability of individuals to “*gain access to, understand and use information in ways which promote and maintain good health*” for themselves, their families and their communities.

### Why is this necessary?

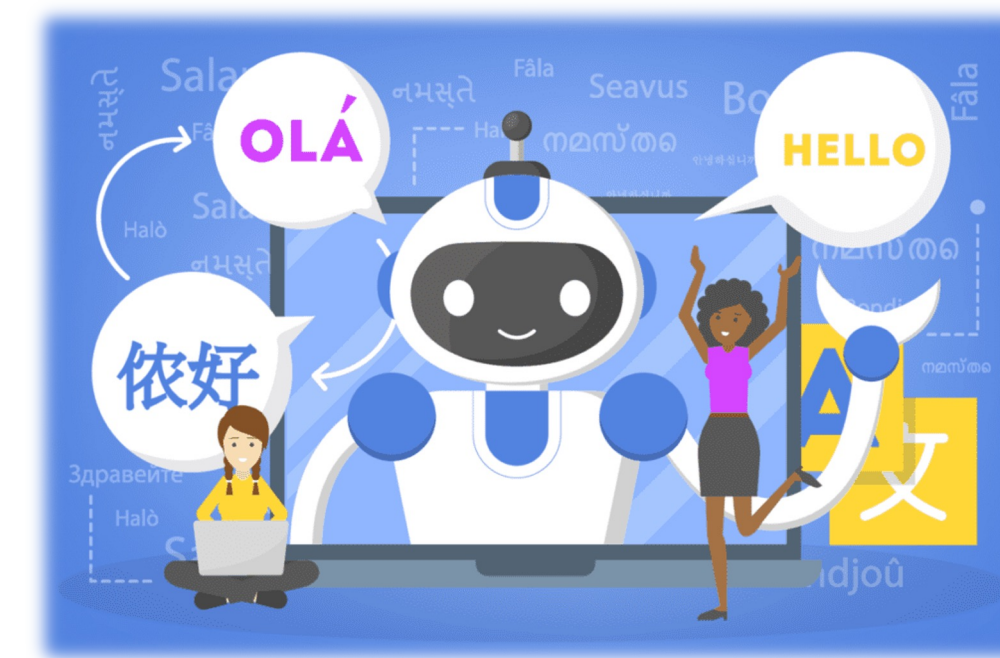
- Empowering citizens
- Reducing health inequities

Machine Translation helps with **accessing information in languages we do not speak**

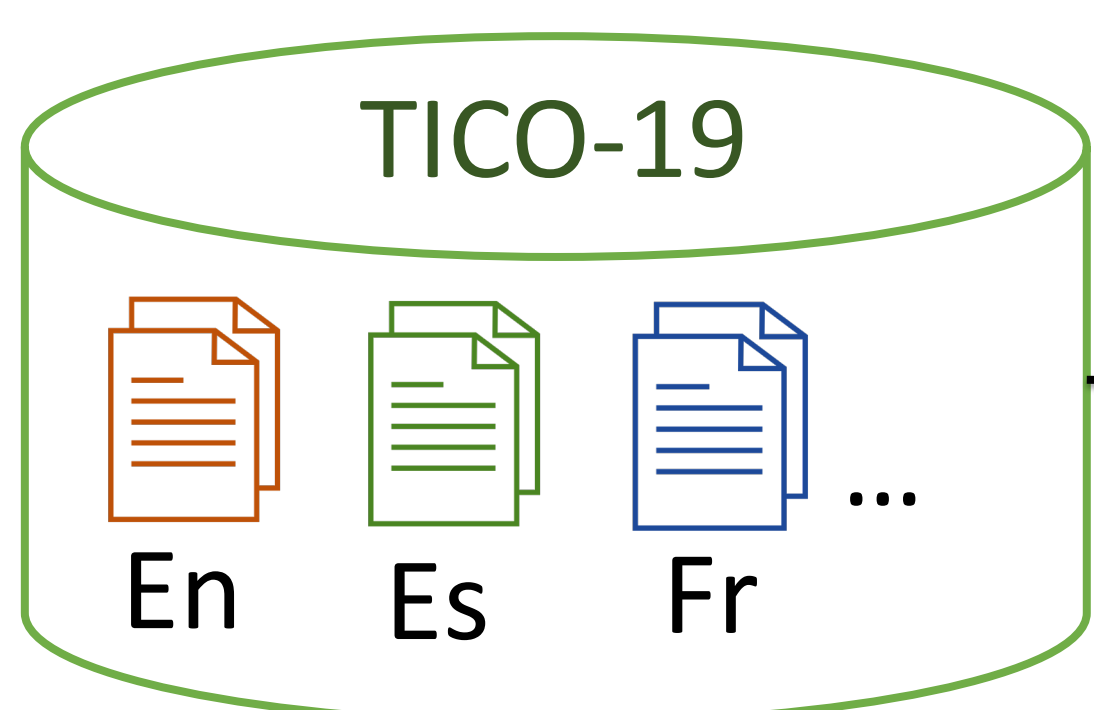
Specialized (translated) language can be still **difficult to understand**, preventing **information accessibility**



Mostly available in English



## SO FAR: THE SIMPLE TICO-19 DATASET



Manual Simplification



- 3,173 Original sentences
  - Dev: 971
  - Test: 2,202
- 1 simplification per Original
- 2 languages: English and Spanish

Sponsored by:



Original (En)

All samples collected will be tested for the presence of influenza and COVID-19.

Simplification

Simplified (En)

All samples will be tested for influenza and COVID-19.

Translation

Original (Es)

Todas las muestras recolectadas se analizarán para detectar la presencia de influenza y COVID-19.

Simplification

Simplified (Es)

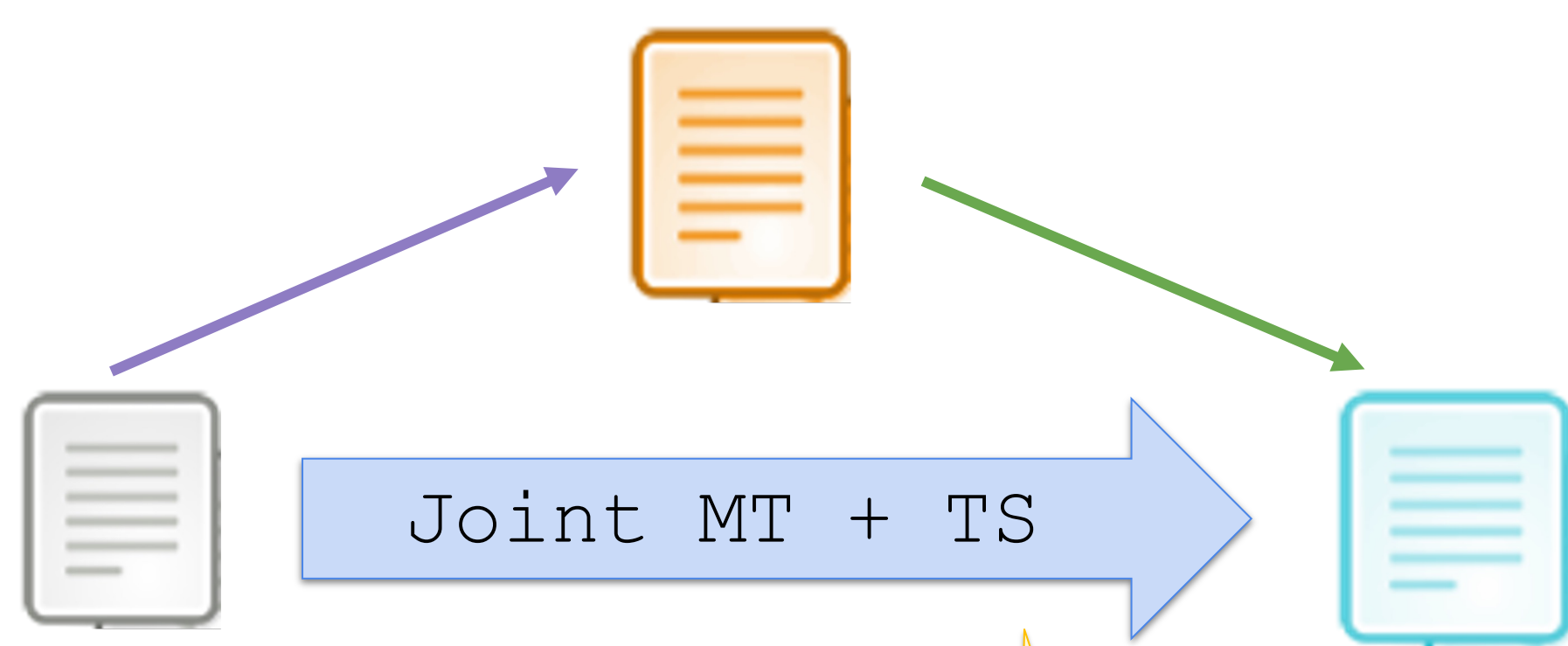
Las muestras recolectadas se analizarán para detectar la influenza y la COVID-19.

## BASELINE RESULTS

Data Source	Original-En →				Original-Es →			
	Original-Es	Simplified-Es	Original-En	Simplified-En	Original-Es	Simplified-Es	Original-En	Simplified-En
CMU	33.51	0.678	17.05	0.581	30.82	0.734	29.41	0.683
PubMed	51.63	0.819	42.69	0.757	50.22	0.802	38.32	0.723
Wikinews	55.41	0.826	40.22	0.732	44.43	0.807	32.09	0.717
Wikipedia	52.16	0.875	44.83	0.836	48.91	0.878	38.64	0.833
Wikisource	39.98	0.715	31.85	0.647	42.16	0.775	31.70	0.702
All	51.42	0.841	43.15	0.788	48.66	0.842	38.02	0.783

## ONGOING AND FUTURE WORK

Complex Spanish



Complex English

Simple Spanish

Simple English

Pipeline systems that translate and then simplify (and vice-versa)

Multi-task architectures for Machine Translation and Text Simplification

Models that generate translations at diverse readability levels

### Grade 7

The federal government conducted a contract with the youth detention center at Vincennes, Indiana, since 2004 to 2010, **so that they hosted** those immigrant children considered as the most dangerous ones.

### Grade 12

El gobierno federal realizó un contrato con el centro de detención juvenil en Vincennes, Indiana, desde el año 2004 hasta el año 2010, para que alojara a aquellos niños inmigrantes considerados como los más peligrosos.

### Grade 5

The federal government made a contract with the youth detention center in Vice-Year. **It is in the** United States since 2004 to 2010.

### Grade 3

The government made a deal with the youth detention center in Vice-Year. It is in the United States since 2004 to 2010. **It was to host** those immigrant children as the most dangerous in 2010.

