Ethio NLP

ICT4D ICT FOR DEVELOPMENT RESEARCH CENTER

Sentiment and Hate Speech datasets for more than 14 African languages

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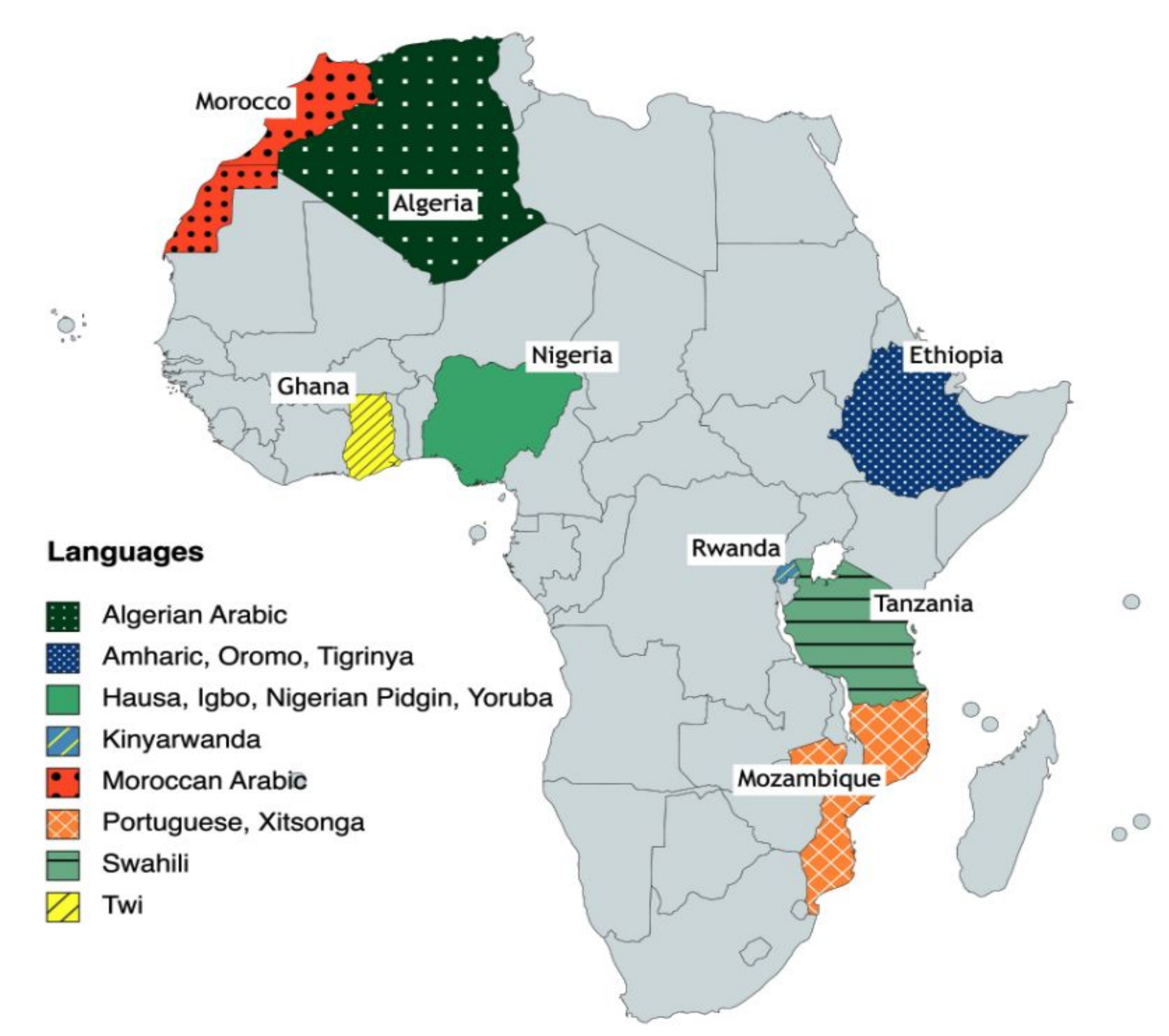
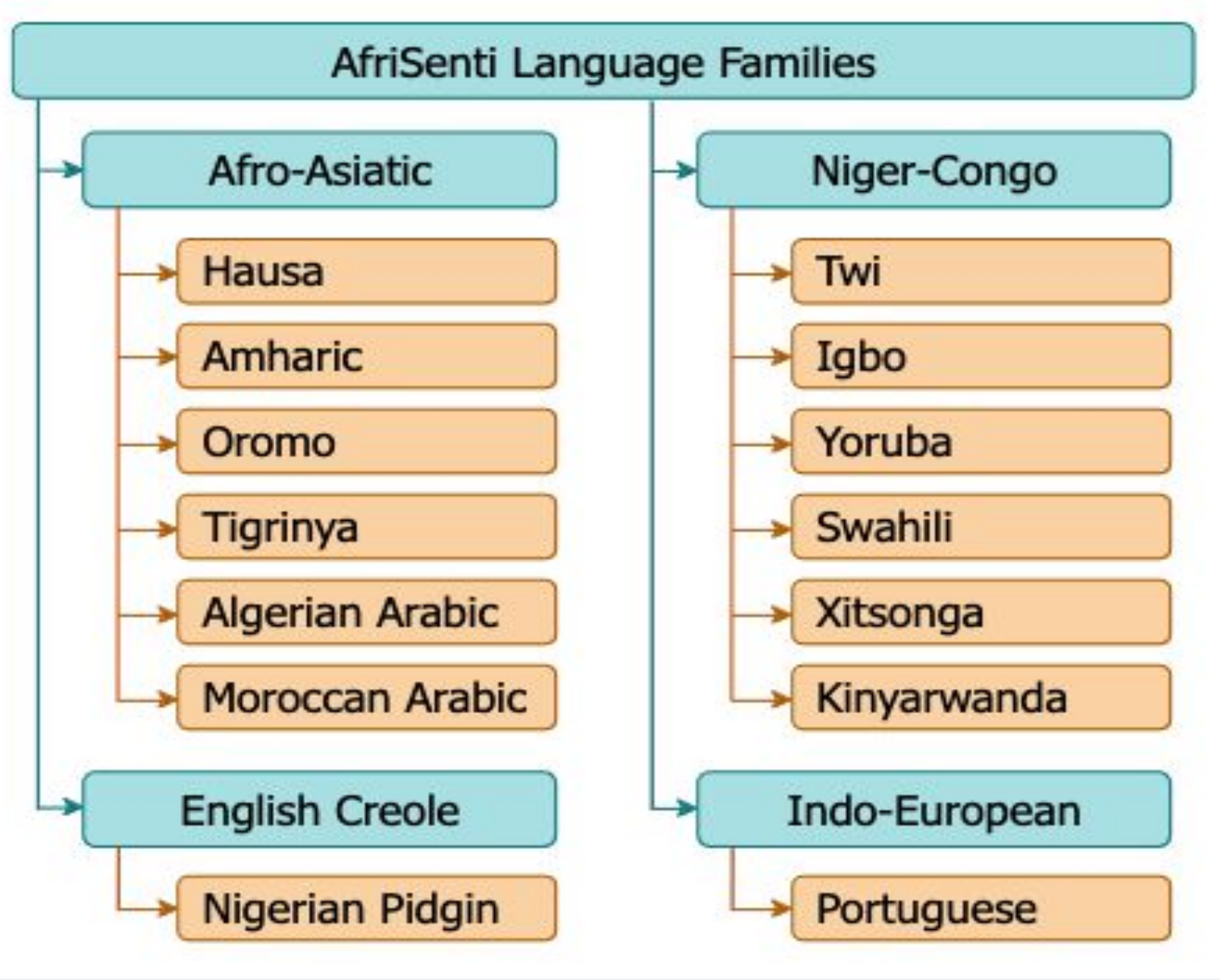
AfriSenti: A Twitter Sentiment Analysis Benchmark for African Languages




AfriSenti Language Families

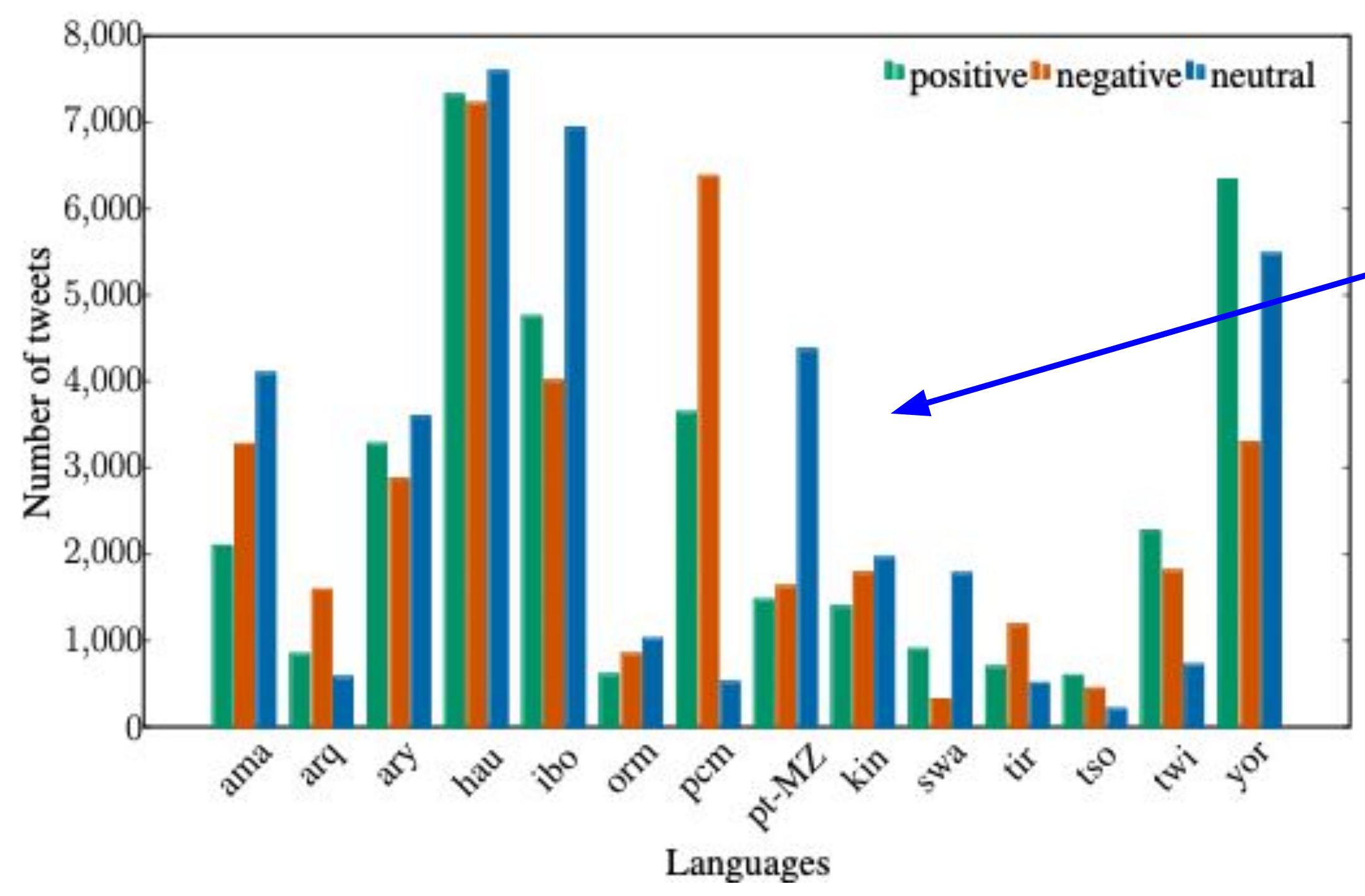
- Afro-Asiatic
  - Hausa
  - Amharic
  - Oromo
  - Tigrinya
  - Algerian Arabic
  - Moroccan Arabic
- English Creole
  - Nigerian Pidgin
- Niger-Congo
  - Twi
  - Igbo
  - Yoruba
  - Swahili
  - Xitsonga
  - Kinyarwanda
- Indo-European
  - Portuguese

The language Family (in green) of each language (in yellow) included in AfriSenti.

Abstract:

Africa is home to over 2,000 languages from more than six language families and has the highest linguistic diversity among all continents. These include 75 languages with at least one million speakers each. Yet, there is little NLP research conducted on African languages. Crucial to enabling such research is the availability of high-quality annotated datasets. In this paper, we introduce AfriSenti, a sentiment analysis benchmark that contains a total of $>$110,000 tweets in 14 African languages (**Amharic, Algerian Arabic, Hausa, Igbo, Kin-yarwanda, Moroccan Arabic, Mozambican Por-tuguese, Nigerian Pidgin, Oromo, Swahili,Tigrinya, Twi, Xitsonga, and Yorùbá**) from four language families. The tweets were annotated by native speakers and used in the AfriSenti-SemEval shared task.

Lang.	Tweet	Sentiment
amh	ያ ጨካኝ አረመኔ ታስሮ ይኸው ካቴና ገብቶለታል ይሉናል። ቆይ አስረው የጀበና ቡና እየጋበዙት ነው እንዴ?	negative
arq	@user .... الشروق هذه من خرجت وهى تتاع تبهديل، مستوى منحط وشعبوي	negative
ary	واش بغيتوهم يبداو يتكرفسو على العادي والبادي عاد تبقاو أنتما على خاطر خاطركم	negative
ary	rabi ykhali alhbiba makayn ghir nachat o chi machat	positive
hau	@USER Aunt rahma i luv u wallah irin totally dinnan	positive
ibo	akowaro ya ofuma nne kai daalu nwanne mmadu	positive
kin	@user Ariko akokanu ngo inyebebe unyujijemo sisawa wangu	negative
orm	@user Jawaar Kenya OMN haala akkamiin argachuu dandeenya	neutral
por	Honestidade é algo que não se compra. Infelizmente a humanidade esqueceu disso por causa das suas ambições.	positive
pcm	E don tay wey I don dey crush on this fine woman ...	positive
swa	Asante sana watu wa Sirari jimbo la Tarime vijijini Huu ni Upendo usio na Mashaka kwa Mbunge wenu John Heche	positive
tir	@user ከመኸረኩም እንተኾይኑ:ንሕውሓት ነዞም ውሑድ ቁጽሮም እባ ምጥፋእ ይሕሸኩም!	negative
tso	@user @user Yu , tindzava ? Tsika mbangui mpfana e nita ku despro-gramara	negative
twi	messi saf den check en bp na wo kwame danso wo di twe da kor aaa na wawu	negative
yor	oníréégbè aláàdúgbò ati olójúkòkòrò	negative



Label distributions for the different AfriSenti datasets (i.e., number of **positive**, **negative**, and **neutral** tweets).

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Funded by Lacuna Fund Our voice in data

AfriHate: Hate Speech dataset for Africa language – Upcoming

Language	Country
Hausa, Igbo, Yoruba and Nigerian Pidgin	Nigeria
Amharic, Tigrinya, Oromo, Somali	Ethiopia
Swahilli	Kenya
Algerian Arabic	Algeria
Moroccan Arabic	Morocco
Sudanese Arabic	Sudan
Twi	Ghana
Mozambican Portuguese	Mozambique
Kinyarwanda	Rwanda
IsiZulu, Afrikaan, IsiXhosa	South Africa

Abstract:

Online hate is an escalating issue that negatively affects users and disrupts online communities, leading to psychological harm and potential offline violence. In Africa, efforts to combat this issue are often focused on **high-profile individuals** and rely heavily on **manual moderation**, making them inefficient and impractical for the wider population. African languages lack adequate natural language processing (NLP) tools, resulting in **blanket interventions** like **content removal** based on **keywords** without context consideration. To address these challenges, we introduce AfriHate, a comprehensive labeled dataset for identifying hate and abusive language in **18 African languages**. This dataset will facilitate the development of **classification models** that enhance **automatic moderation capabilities**. It can be utilized by **platform owners**, **peacebuilders**, **community service platforms**, and others to foster **innovation in NLP for African languages**.

Annotation Strategy

- Multi-layer annotation by five annotators per tweet
- Covers 18 African languages
- Uses Fleiss kappa for reliability
- Ensures cultural and context sensitivity

Potential Applications

● **Develop models for automatic moderation**

- Social media platforms - Peacebuilding organizations
- Community service platforms

● **Supports research in**:

- Sentiment analysis - Socio-linguistic studies

Impact

- Enhances NLP resources for African languages
- Promotes inclusivity and safer online spaces
- Supports linguistic diversity and understanding
- Lays foundation for future NLP advancements