

Shravan: Building Multilingual ASR for Indian Languages

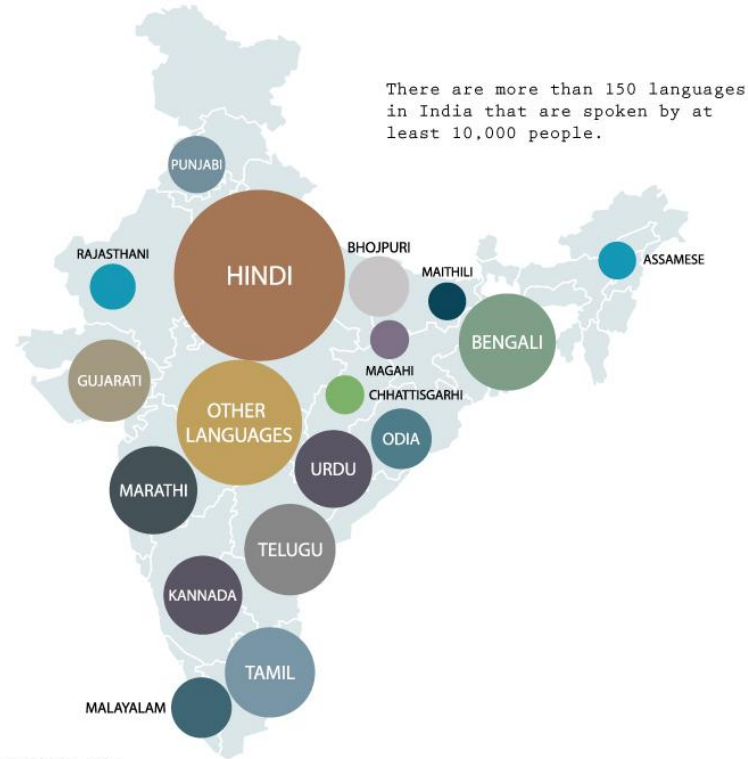


Ashish Seth, Mudit Batra, Arun Kumar A,
Sreyan Ghosh, Vrunda Sukhadia, Vasista Sai Lodagala

Speech Lab IITM headed by **Prof. S. Umesh**

Mentor: Brian Yan

Shravan/श्रवण: to listen



Source: India Census, 2001

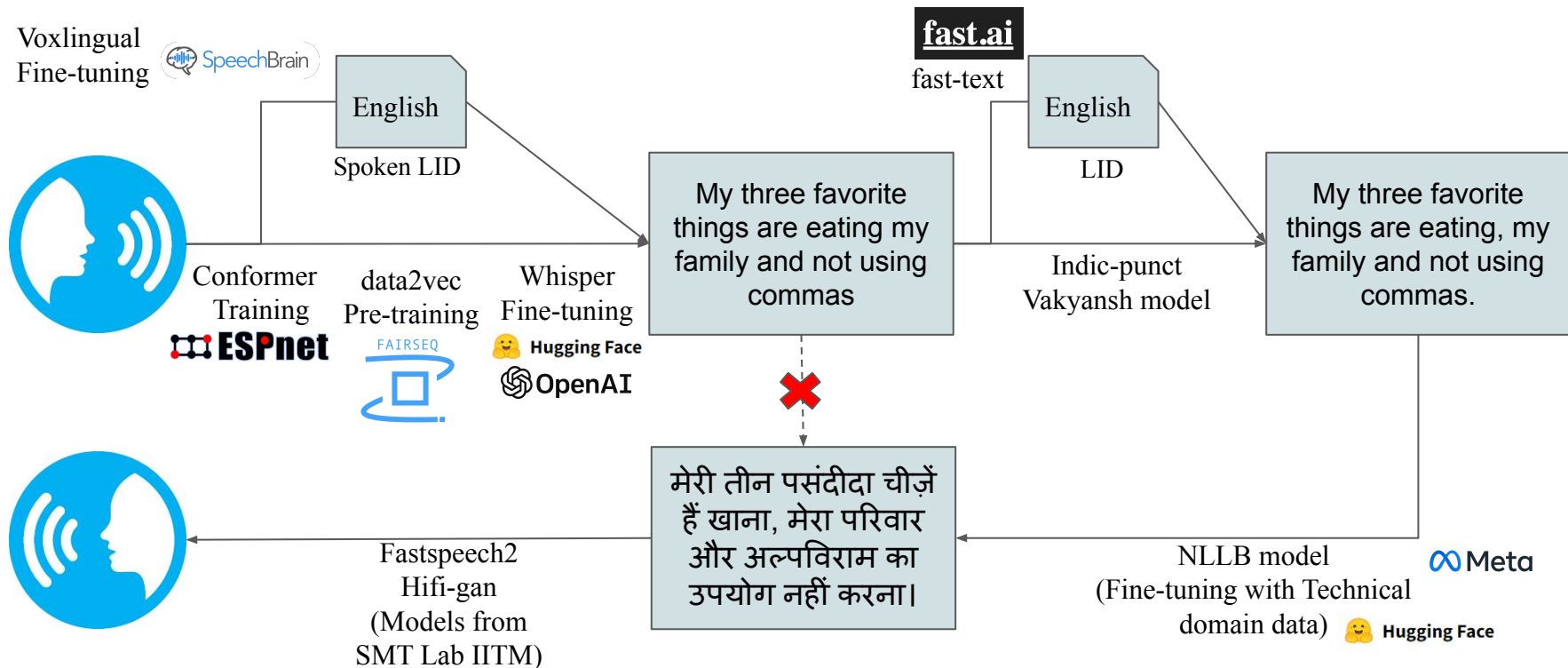
Motivation and Societal Impact



Applications:

- Educare [MOOCs]
- Medicare [e-Consultation]
- Customer Care
- Entertainment

Speech to Speech pipeline

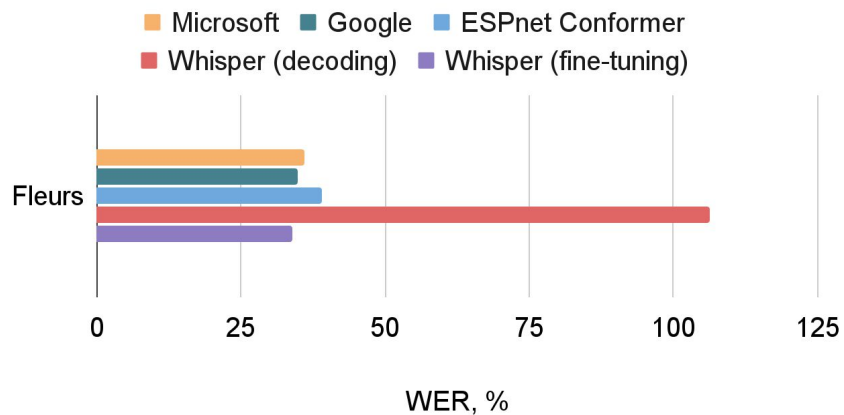


Datasets Used

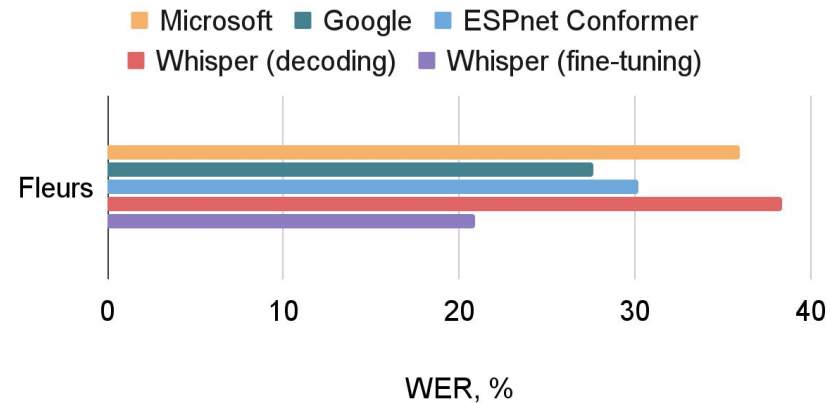
- Hindi: GramVaani ASR Corpus, ULCA ASR Corpus, Shrutilipi ASR Corpus, Google/Fleurs
- Tamil: MILE ASR Corpus, ULCA ASR Corpus, Shrutilipi ASR Corpus, Microsoft Research Tamil Corpus, Babel ASR Corpus, Google/Fleurs
- Gujarati: ULCA ASR Corpus, OpenSLR, Microsoft Research Telugu Corpus, Google/Fleurs
- Telugu: CSTD IIIT-H ASR Corpus, ULCA ASR Corpus, Shrutilipi ASR Corpus, Microsoft Research Telugu Corpus, Babel ASR Corpus, Google/Fleurs
- Kannada: MILE ASR Corpus, ULCA ASR Corpus, Shrutilipi ASR Corpus, Google/Fleurs

Results on Fleurs test set

Gujarati

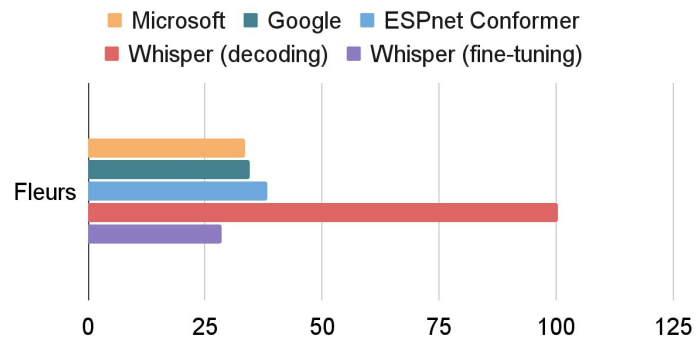


Hindi

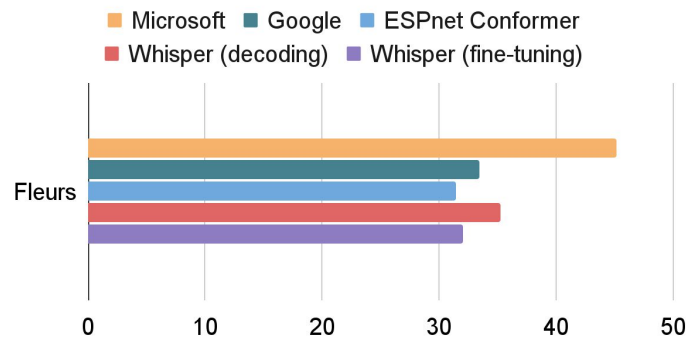


Results on Fleurs test set

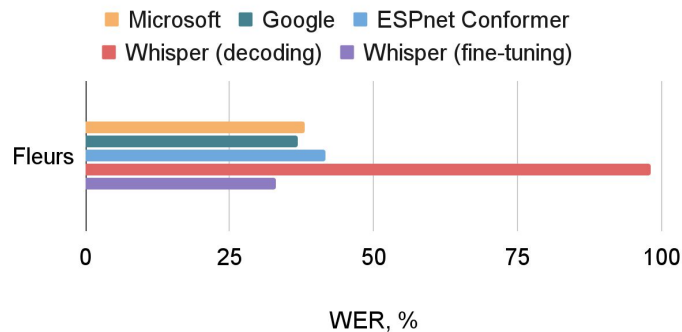
Kannada




Tamil




Telugu




Open Source

 [vasista22/whisper-hindi-small](#)


 • Updated about 5 hours ago

 [vasista22/whisper-tamil-medium](#)


 • Updated 7 days ago • ↓ 12

 [vasista22/whisper-telugu-large-v2](#)

 • Updated 7 days ago • ↓ 3

 [vasista22/whisper-gujarati-small](#)

 • Updated 7 days ago • ↓ 65

 [vasista22/whisper-telugu-base](#)


 • Updated 10 days ago • ↓ 5

 [vasista22/whisper-telugu-small](#)


 • Updated 10 days ago • ↓ 62

 [vasista22/whisper-kannada-small](#)


 • Updated 10 days ago • ↓ 54

 [vasista22/whisper-kannada-tiny](#)


 • Updated 10 days ago • ↓ 15

 [vasista22/whisper-tamil-large-v2](#)


 • Updated 7 days ago • ↓ 7

 [vasista22/whisper-gujarati-medium](#)


 • Updated 7 days ago • ↓ 12

 [vasista22/whisper-tamil-small](#)


 • Updated 7 days ago • ↓ 50

 [vasista22/whisper-gujarati-base](#)


 • Updated 7 days ago • ↓ 20

 [vasista22/whisper-telugu-tiny](#)


 • Updated 10 days ago • ↓ 5

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 • Updated 10 days ago • ↓ 14

 [vasista22/whisper-kannada-medium](#)

 • Updated 10 days ago • ↓ 12

 [vasista22/whisper-kannada-base](#)

 • Updated 10 days ago • ↓ 5

Challenges

Agglutination Issues

Sentence 1 : ఆసుపత్రిలో నిద్రపోతూ ఉండగా

Sentence 2 : ఆస్పత్రిలో నిద్రపోతుండగా

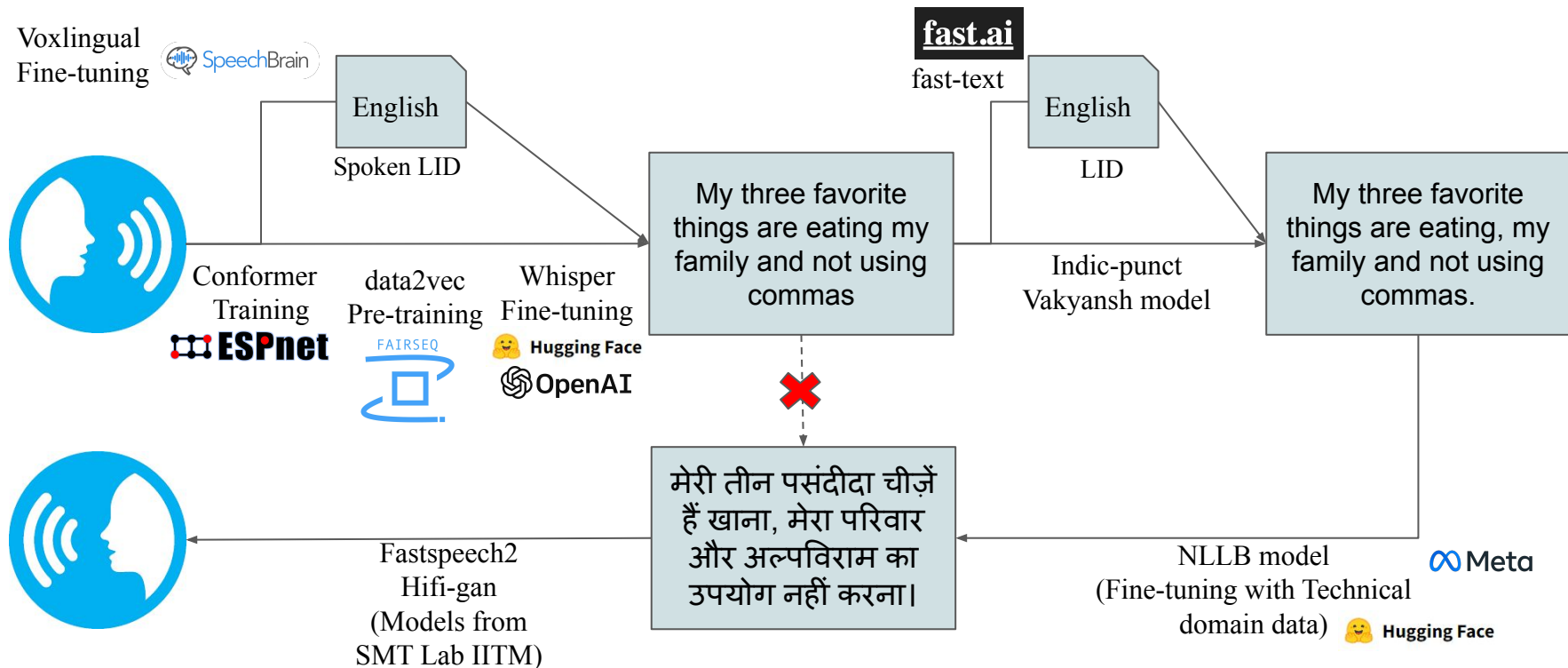
English translation: While resting in the hospital

Punctuation Errors

Ref : Thank you. Your donation helped someone get a job.

Hyp: Thank you. Your donation helped someone. Get a job.

Future Work



Acknowledgement

Resources for this work were funded by “**Bhashini: National Language translation Mission**” project of the **Ministry of Electronics and Information Technology (MeitY), Government of India**.

Demo Link (Video-to-Video)

<https://asr.iitm.ac.in/test5>



Demo Link (Speech-to-Speech)

<https://asr.iitm.ac.in/test2>



Demo Link (ASR-MT)

<https://asr.iitm.ac.in/test1>

