

Scope & Limitations of speech Recognition:

- human-to-human interaction
- human-to-machine interaction

1. Speech is slow in presenting information.
2. Transient, so difficult to review or edit.
3. Interferes with other cognitive tasks of human

one part of brain



less requirement of cognition =

other
part of
brain

- walk ✓
- play ✓
- move body part ✓
- typing ✓
- mouse movement ✓

Speech: store & forward

Open source:
Software
"Audacity"

ASR → blind

→ motor impaired

→ physical disability

→ where hands are busy,
eyes are busy, mobility
is necessary

Good things of speech communication:

- rich emotional content
- speech is also conveyed as:

1 - prosody: rhythmic structure
(pitch, stress, rate, ...)

2 - pacing (speed at which story is told)

3 - intonation (rise & fall of sound)

Human brain has multi-tasking capability, but any combination of activities cannot be done together (synchronously)

ASR
TTS



Text to speech

ways = bility of speech sounds:

"Six sheep", may be understood
as "Sick sheep".

due to phonetic indistinctness

"Flight to Delhi", - - - - -
"Fly to Delhi"
due to co-articulation.

Others:

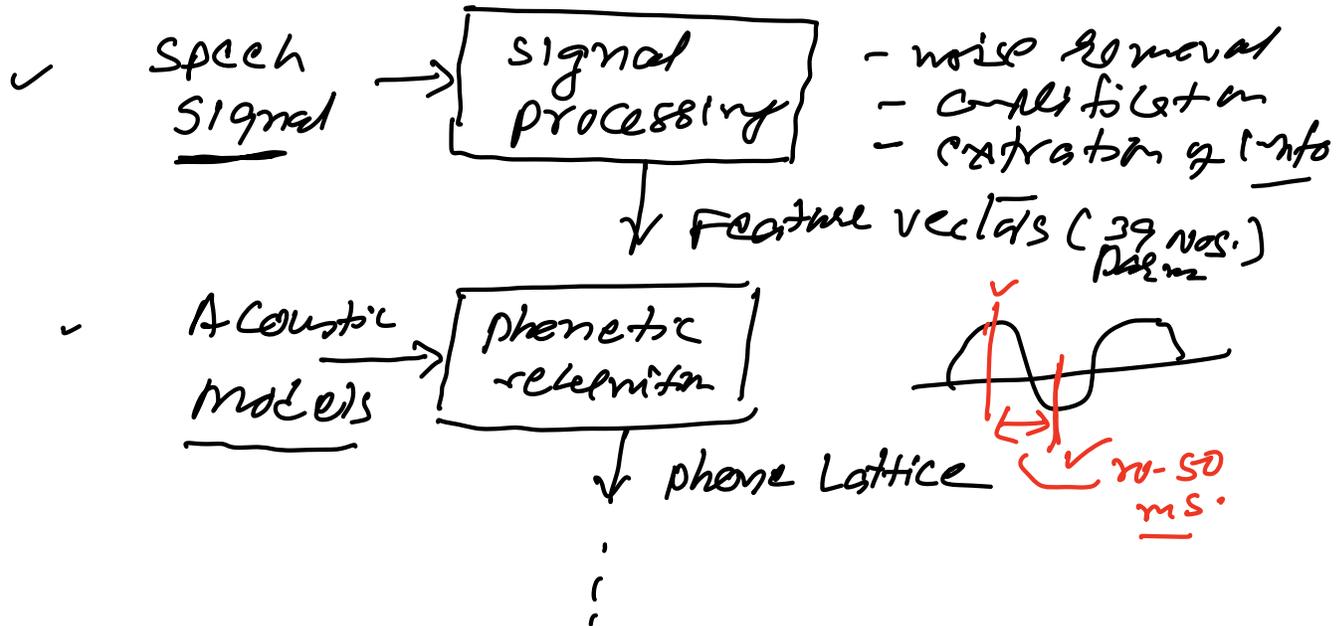
1. Physiological: child vs. male/female
vs. elderly people
2. Behavioral: background of
study & culture

3. Transducer: (mic.)

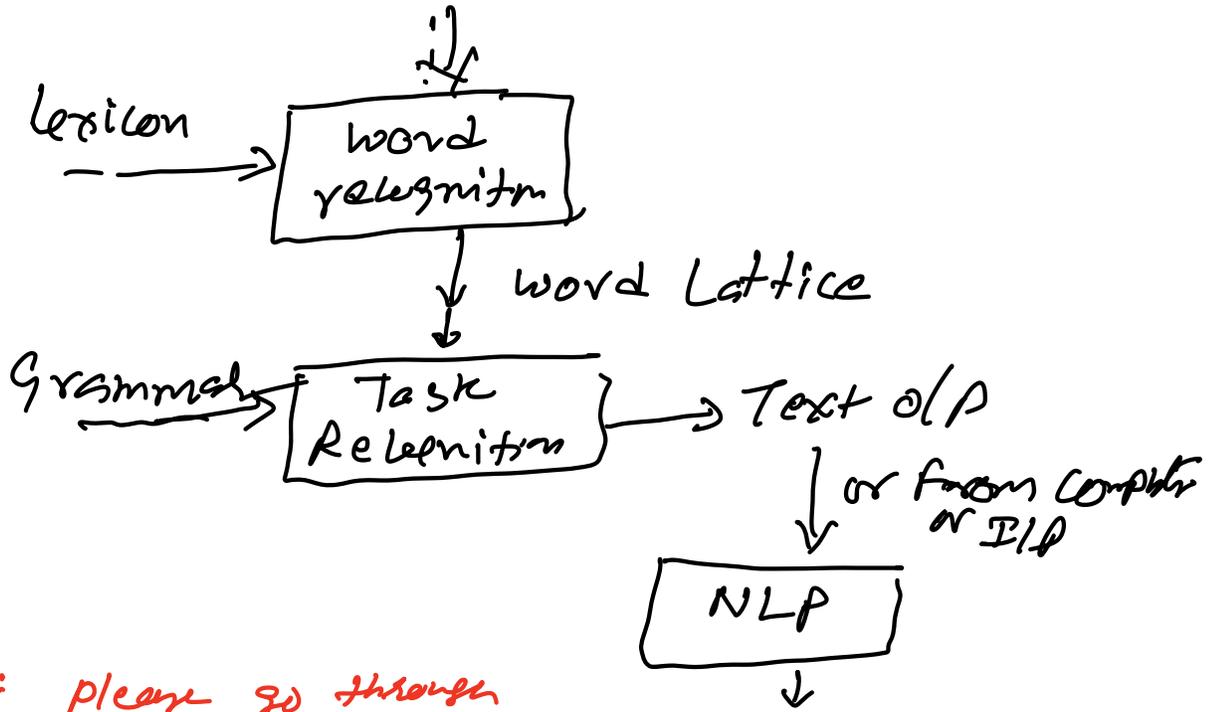
4. Environment: (background noise)

5. phonetic context

Phases of speech Recognition:



SIX
V/S
SICK



Note: please go through this content, which was part of the lecture, reason about the things, ask questions to yourself & try to answer, do not just try to memorize the things !!

