[Research Paper Here](#)

**General Idea:**

 convert arabic text to 3D animation

**Dataset:**

They have built a small database including 15 useful phrases taken from deafcallcenter1 in the Arabic sign language, in GIF format

**Methods and Algorithms:**

they have used to approaches:

1- Example-based translation:

if the written sentence already exists in DB so display it directly

2- Rule based Interlingua translation:

for the sentence that does not exist in the database;

needs to apply automatic natural language processing (ANLP) technologies with the Arabic language

four steps must be followed for this approach

Morpho-syntactic analysis, Syntactic re-ordering, Arabic sign sentence generation, Animation.

In the last step animation, a database of 200 words in gif format taken from a Moroccan dictionary2 If a sentence contains a proper noun, it is animated letter-by-letter using 3D Hand and we do the same thing if a word does not exist in the database.
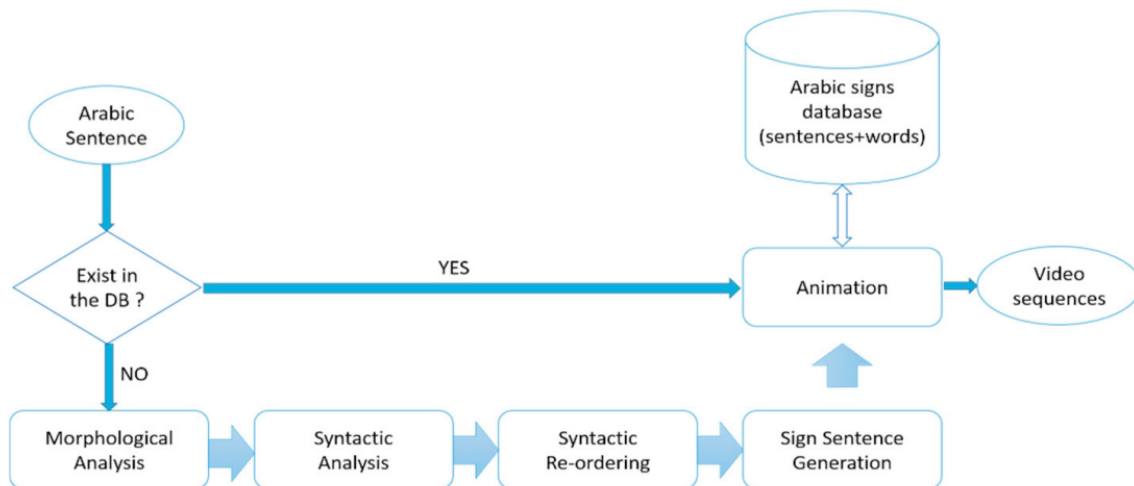


Fig. 2. The main steps of our machine translation system

-Luluwah Alsenani