Automated Benevolent Text Evaluation

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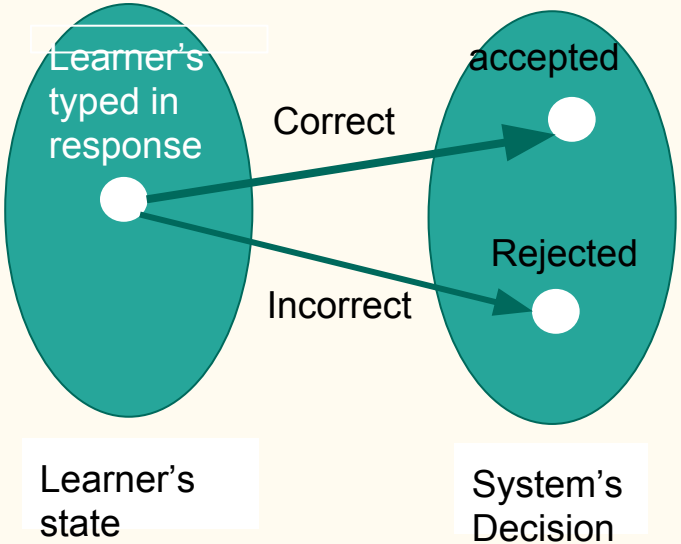
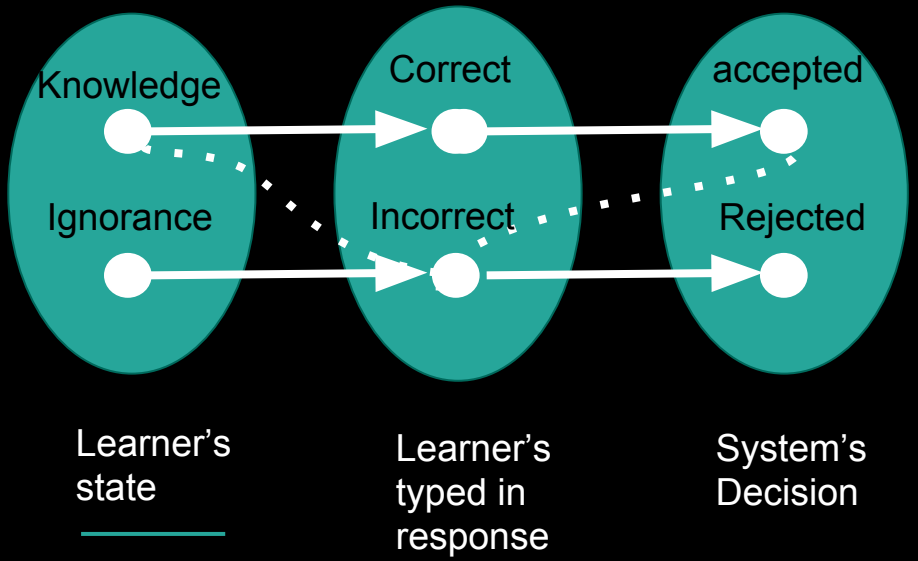
Introduction

- Why develop this system?
- Challenging the MCQ approach.

Binary logic



Fuzzy logic



Objective

- Phrases and short sentences.

Demo

Approach

- Term frequency
- Document Frequency
- Inverse document frequency
- Point calculation

tf-idf

$tf_{t,d}$ (term frequency)

Formula of tf :

$$tf_{t,d} = 1 + \log tf_{t,d}$$

Where **(t,d)** = terms in the learner's answer in each document

Document Frequency(df)

df = number of documents with term t in it.

This document frequency is used to calculate idf.

Idf (Inverse Document Frequency)

Formula of idf :

$$IDF(t) = log(N / Df).$$

Where N = Total number of documents.

df= Number of documents with term t in it.

tf - idf

Formula for both the combinations :

tf-idf =

$$(1 + \log tf_{t,d}) * (\log(N/df))$$

Point Calculation

$$points(q,d) = \sum_{t \varepsilon q} (tf*idf)$$

Where,

q = learners answer

d = document

Future Development

1. Implementing the approach on passages.
2. Integrating all the modules to work together.
3. Writing a paper under self revision.

Thank You