



# A Chinese Writing Correction System for Learning Chinese as a Foreign Language

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# Background

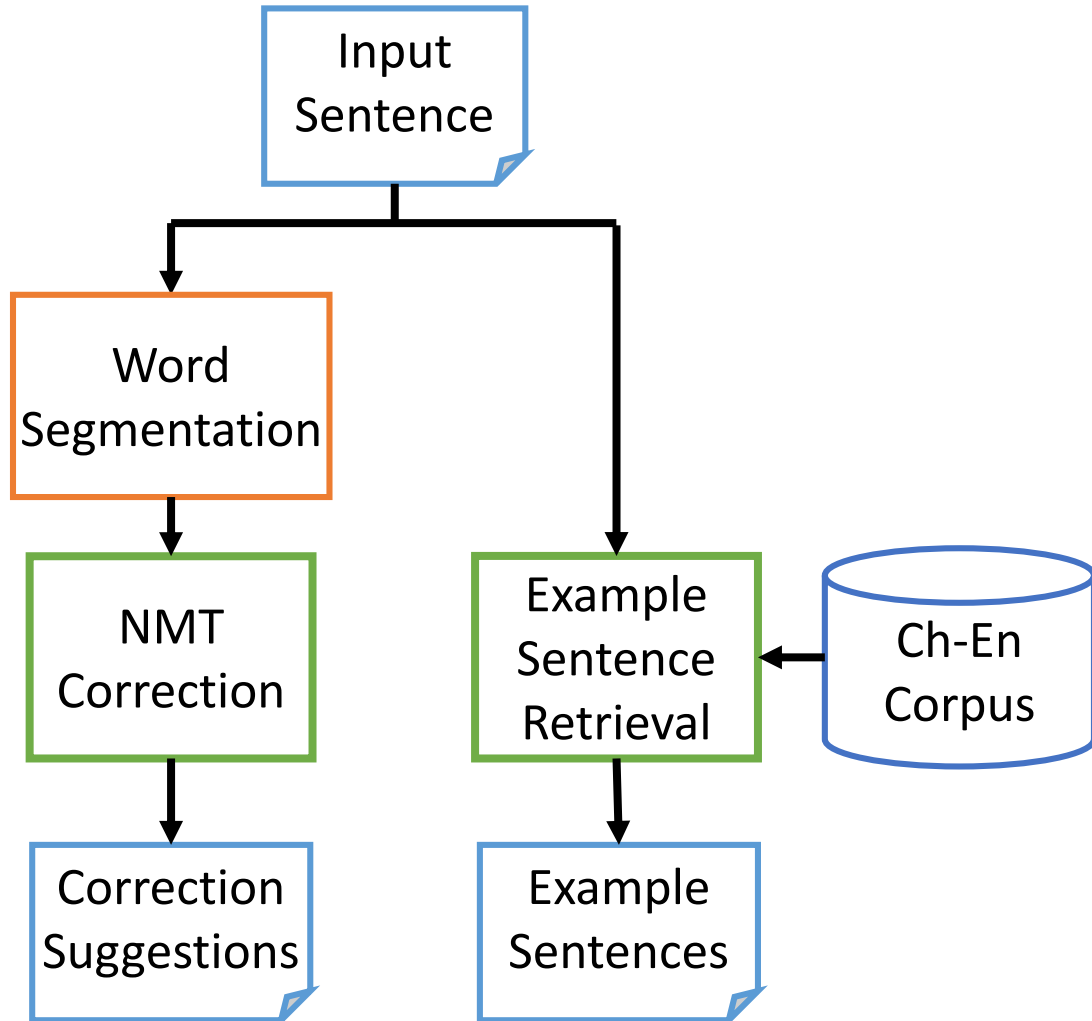
## Translation approach to grammatical error correction

- Does not require exact recognition of error types
- Many-to-many mappings handled → deal with multiple errors of various types with a single translation model
- Neural machine translation (NMT)
  - Distributional word vectors → generalize to unseen corrections

## Existing studies on Chinese writing errors

- Detection only
  - Shared Task for Chinese Grammatical Error Diagnosis (CGED)
- Correction of specific error types
  - Word ordering
  - Preposition
- **This work: a general model that handles all types of Chinese writing errors**

# System Architecture & User Interface



## Chinese Writing Correction System for CFL Learners

Input sentence Sample #1 (Redundant) Sample #2 (Missing) Sample #3 (Selection) Sample #4 (Word ordering)

我們在夜市找做別的活動吧

Both simplified and traditional Chinese are supported.

# correction suggestions

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Submit

- Suggestion # 1  
我們在夜市找做別的活動吧
- Suggestion # 2  
我們在夜市找做別的活動吧
- Suggestion # 3  
我們在夜市找做別的活動吧
- Suggestion # 4  
我們在夜市找做別的活動吧
- Suggestion # 5  
我們在夜市找做別的活動吧

- Example Sentences
- 我們在林邊搭帳篷。  
We'll set up our tents over there by the edge of the woods.
  - 我們在到處找你呢。  
We've been chasing up hill and down dale trying to find you.
  - 我們在臉上搽雪花膏。  
We smeared cream on our faces / smeared our faces with cream.
  - 他回信說他太忙不能參加我們的活動。  
He wrote back that he was too busy to join us.
  - 我們在今日之前未獲通知。  
We received no notification prior to today's date, ie before today.
  - 他開始計劃星期天的活動。  
He began to plan what he would do with his Sundays.
  - 我們在菲尼克斯的朋友安排他們的活動以符合我們的需求。  
Our friends in Phoenix schedule their activities to coincide with our requirements.
  - 好了，讓我們幹手頭的活吧。  
Now then, let us get down to the business at hand.
  - 我們在努力為我們的促銷活動搞出一些創意。  
I was trying to get some ideas for our sales promotion.