



# Concept of Knowledge Sharing in Multinational Student Society



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# Topics

- Introduction
- Universal Networking Language
- Application of UNL
- Current & Future Work
- Conclusion



# Introduction

- Share benefits of economy
- Share knowledge

2015





# Introduction

ສັບສົດ  
ສະບາຍດີ  
ໂນໝໍ  
ບໍລິຫານ  
ຮ່ວມເວົາ  
*Xin chào*

你好  
*hello*  
HAI  
**kumusta**  
**hola!**  
**halo**

## 12 languages

## 10 countries





- Universal Networking Language
- A computer (artificial) language
- Expresses information or knowledge
- UNL expression are unambiguous
- Universal Words (UWs), Relations, Attributes



# Universal Words (UWs)

- UWs is the vocabulary of UNL
- To represent concept.
- It's an English word followed by a list of constraints.
- For example:
  - state(icl>express)
  - state(icl>country)
  - state(icl>abstract thing)
  - state(icl>government)

state | stāt |

noun

- 1 the particular condition that someone or something is in at a specific time: *the state of the company's finances* | *we're worried about her state of mind* .
  - a physical condition as regards internal or molecular form or structure: *water in a liquid state* .
  - [ in sing. ] (a **state**) informal an agitated or anxious condition: *don't get into a state* .
  - [ in sing. ] informal a dirty or untidy condition: *look at the state of you—what a mess!* .
  - Physics short for **QUANTUM STATE**.
- 2 a nation or territory considered as an organized political community under one government: *Germany, Italy, and other European states* .
  - an organized political community or area forming part of a federal republic: *the German state of Bavaria* .
  - ( the **States** ) informal term for **UNITED STATES**.
- 3 the civil government of a country: *services provided by the state* | [ in combination ] : *state-owned companies* | *King Fahd appointed a council to advise him on affairs of state* .
  - ( the **States** ) the legislative body in Jersey, Guernsey, and Alderney.
- 4 pomp and ceremony associated with monarchy or high levels of government: *he was buried in state* .
- 5 [ usu. with modifier ] an impression taken from an etched or engraved plate at a particular stage.
  - a particular printed version of the first edition of a book, distinguished from others by prepublication changes.



# Relations

- String of 3 characters or less, e.g. `icl`, `agt`
- Link between UWs (binary form)
- There are 46 relations in UNL
- For example:
  - `agt( do , thing ) / agt( UW1 , UW2 )`
  - defining a thing which initiates an action
  - ‘Car runs’ -->  
`agt( run(icl>move) , car( icl>thing) )`



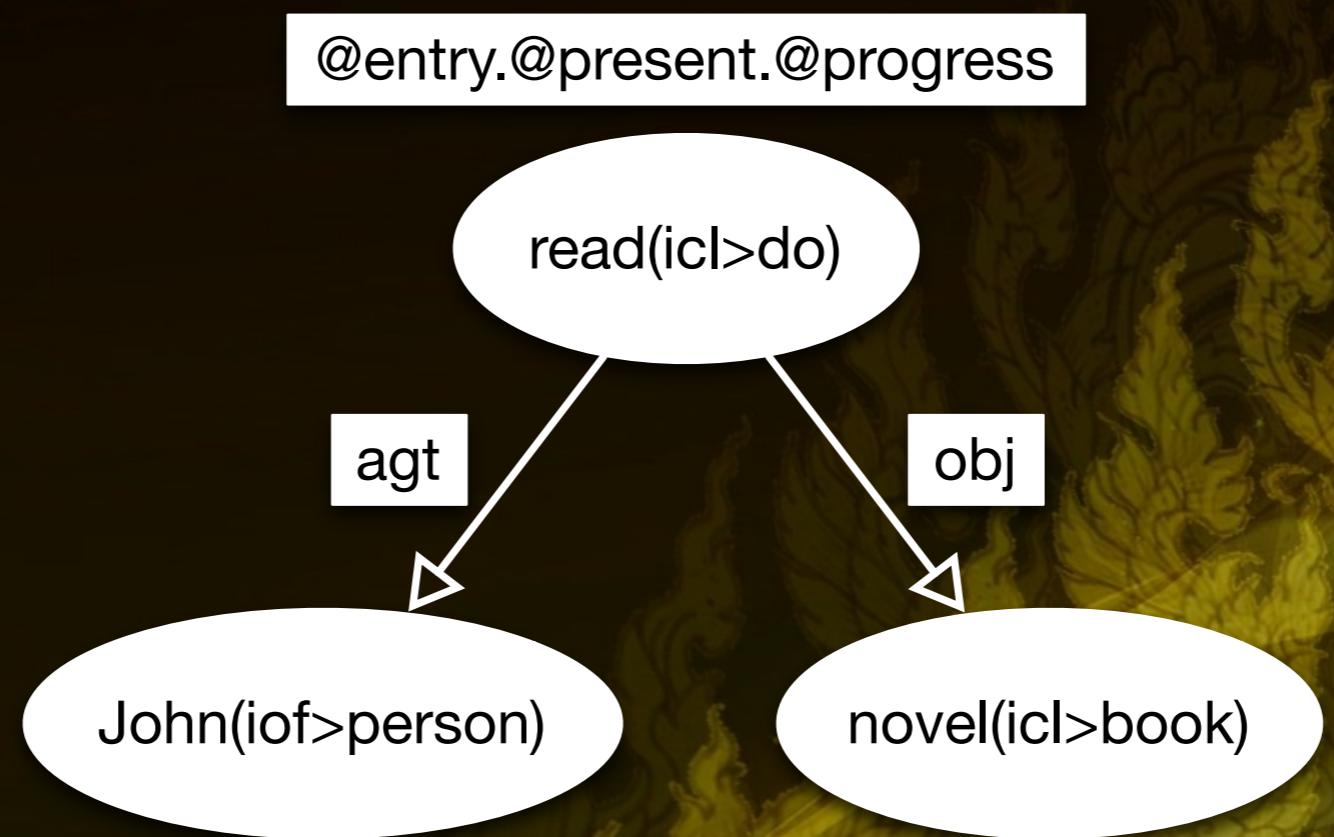
# Attributes

- Express additional information in a sentence
- For example:
  - @past --> happened in the past
  - @present --> happening at present
  - @future --> will happen in future
  - @pl --> plural
- agt( run(icl>move).@present , car( icl>thing) )



# UNL expression

- John is reading a novel



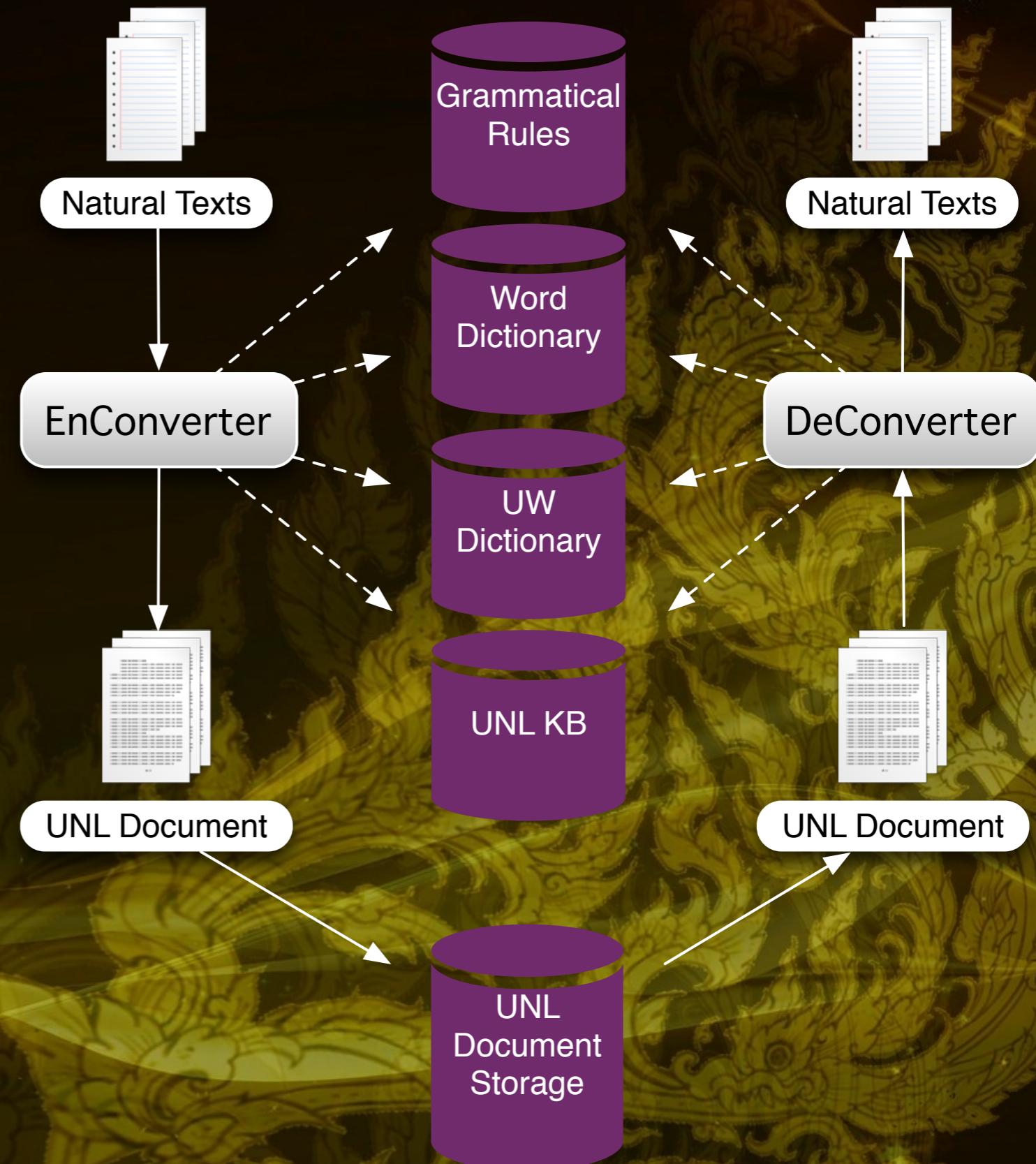
[UNL]

agt(read(icl>do) @entry.@present.@progress, John(iof>person))  
obj(read(icl>do) @entry.@present.@progress, novel(icl>book))

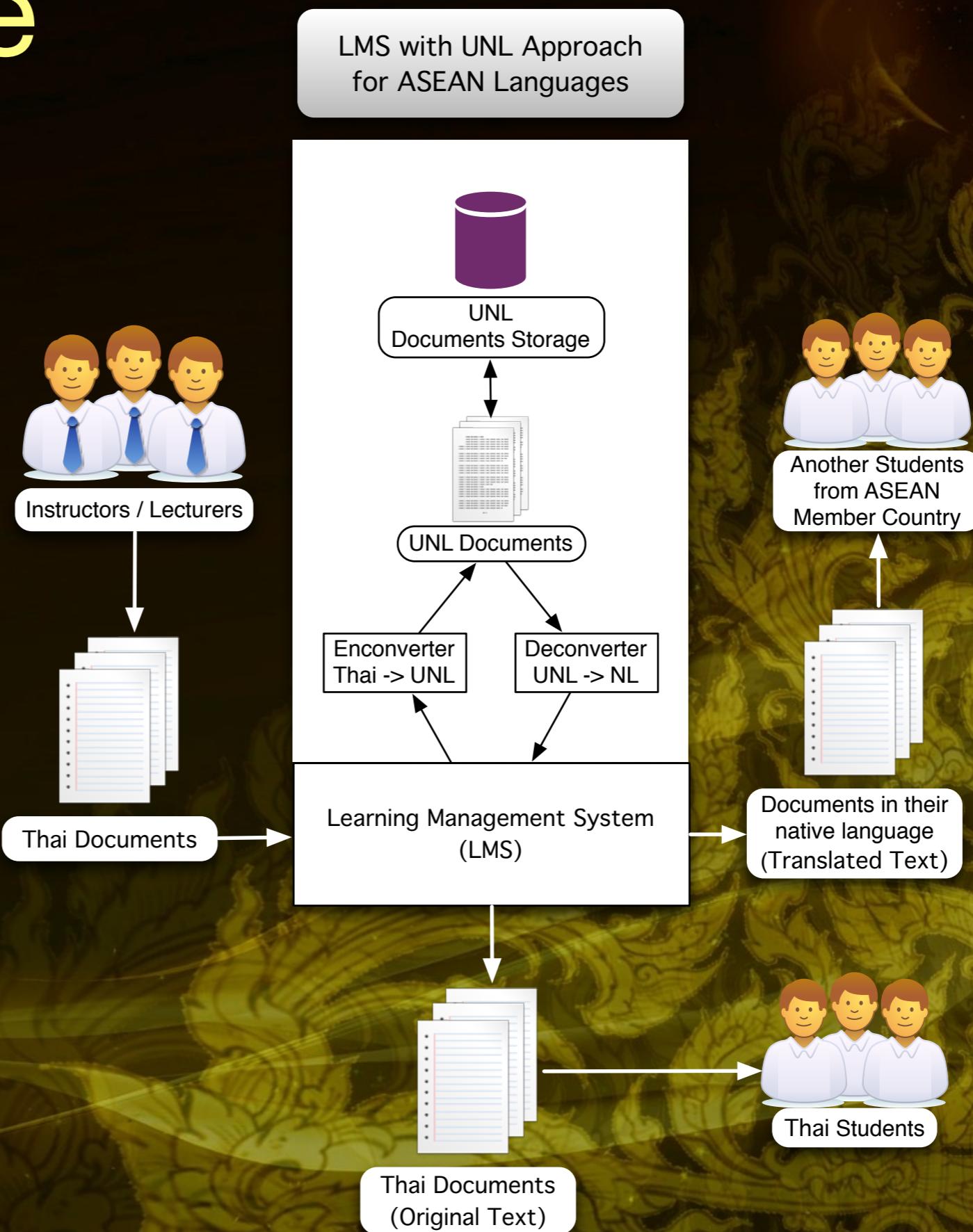
[/UNL]



# UNL Translation Mechanism

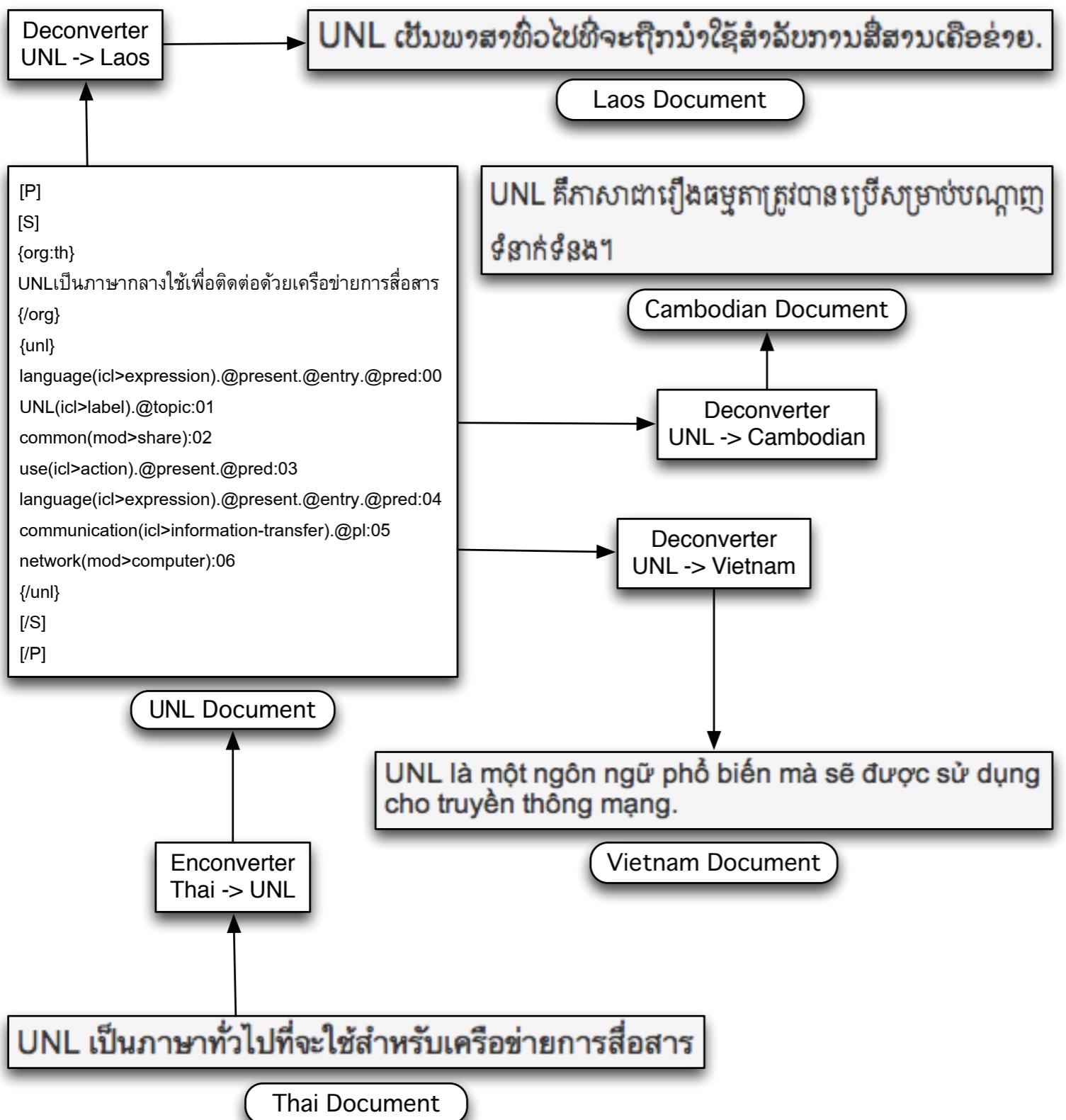


# Knowledge Sharing Concept





# Example ...





# Current Work

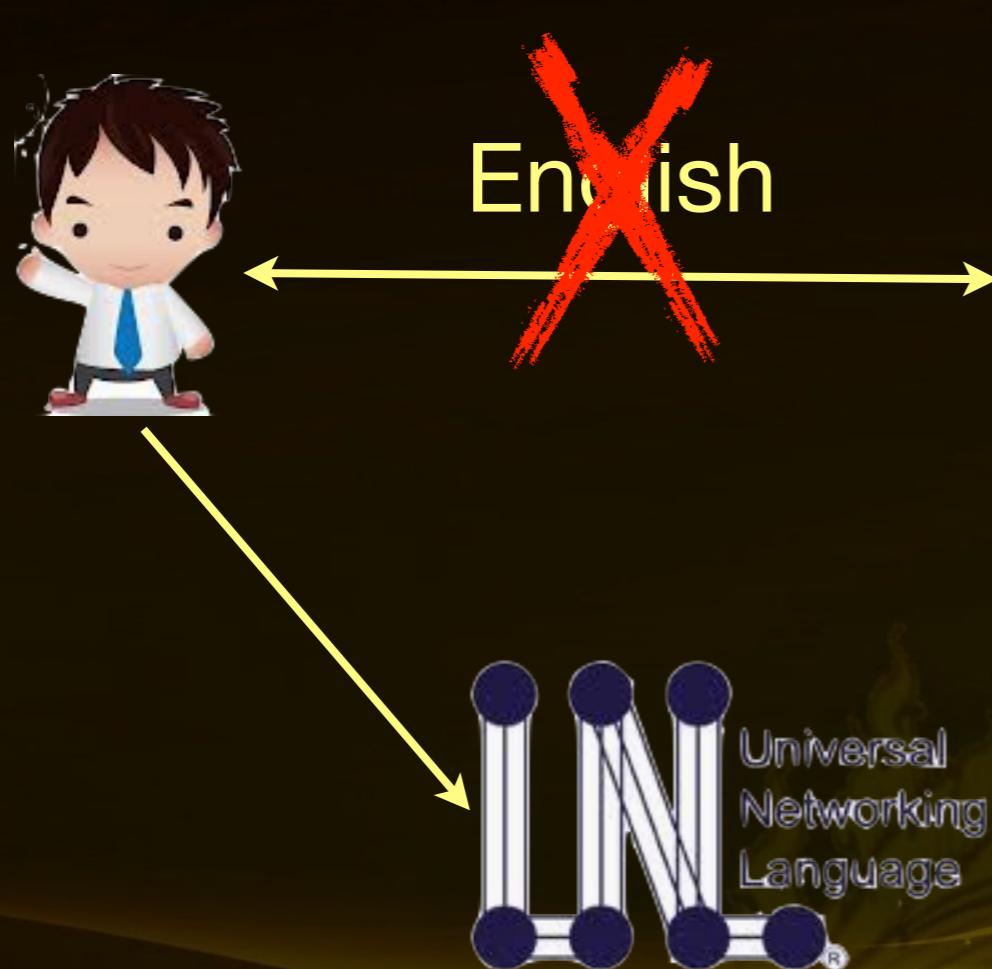
- Surveying of language resources for ASEAN languages
- Building UW-editor for Thai language

# Future Work

- Reconfigure UNL-Thai deconverter

# Conclusion

AEC 2015



sustainable for knowledge sharing



# Thank...





A collage of 'Thank You' in various languages, including Eskerrik asko (Basque), Ju faleminderit (Burmese), Diolch (Welsh), Grazas (Catalan), di ou mèsi (Irish), Grazas (Sinhala), d'akujem (Czech), Dank (German), تشكري (Arabic), فاكاك (Arabic), bér (Hungarian), Dankie dat (Dutch), UTak (Norwegian), سکردار (Persian), спасибо (Russian), salamat (Uzbek), شکراللہ (Urdu), 謝謝 (Chinese), eşekkürler (Turkish), Merci (French), Go raibh maith agat (Irish), תודות (Hebrew), דציאקי (Belarusian), もうありがとうございました (Japanese), Tack (Swedish), Köszönöm (Hungarian), Vielen Dank (German), Va multumesc (Romanian), Gracias (Spanish), Σας ευχαριστούμε (Greek), Kiiitos (Finnish), Dziękuje (Polish), Terima Kasih (Indonesian), Grazie (Italian), grazias tu (Spanish), شکری (Persian), ادا کیا (Urdu), Asante (Swahili), 감사합니다 (Korean), and شكراً (Arabic).