CS 486 Introduction to Artificial Intelligence

Fall 2016

Assignment 4: A Natural Language Generation “Hackathon” – Part (d)

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# Samples of the Texts Generated

Sample 1

Individual Selected: Harry Potter

Configuration: Default with graph distance set to 2. It covers first graph distance of Harry Potter, Hermione Granger, Ginny Weasley, Hedwig, Hogwarts, Gryffindor House and James Potter. Texts are generated until all facts are assimilated.

Generated Text: “Harry Potter is a good wizard and a student. A good wizard is a kind of wizard. Harry Potter's classmate is Hermione Granger and Ronald Weasley. Hermione Granger is a good wizard and a student. Hers classmate is Harry Potter and Ronald Weasley. She is a student of Hogwarts. She is a house member of Gryffindor House. She is the wife of Ronald Weasley. She is 19 years old. She is interested in the history of the wizarding world. Harry Potter is married to Ginny Weasley. Ginny Weasley is a good wizard and a student. She is a daughter of Arthur Weasley and Molly Weasley. She is a student of Hogwarts. She is a house member of Gryffindor House. She is the wife of Harry Potter. She is 17 years old. Harry Potter owns Hedwig and the Cloak of Invisibility. Hedwig is an owl. She is owned by Harry Potter. Harry Potter is a student of Hogwarts. Hogwarts is a school of magic. It teaches course such as Care Of Magical Creature 101, Charms 101 and Potions 101. Harry Potter is a house member of Gryffindor House. Gryffindor House is a house. Ginny Weasley, Harry Potter, Hermione Granger, and Ronald Weasley belongs to it. It is a house of Hogwarts. Harry Potter is a son of James Potter and Lily Potter. James Potter is a shapeshifter and a good wizard. He is the father of Harry Potter. Harry Potter is 18 years old.”

# Informal Evaluation of the Texts

Before we begin, we start by defining the definition of fluency and interestingness. **Fluency** is the ability to read a text accurately, quickly, and with expression. **Interestingness** is the ability to attract or hold one’s attention.

Sample 1

* Fluency
* In terms of ability to read a text accurately and quickly, most of the sentences are grammatically correct and readers are able to understand the contexts and meaning properly. There is one exception “Hers classmate is Harry Potter and Ronald Weasley.” The sentence plan ClassMateOf, connected to isClassMateOf, generates this result, but it seems to be unavoidable in current version of NaturalOWL. If we set the Expression to demonstrative, instead of auto, it will generate “This Hermione Granger’s classmate is Harry Potter and Ronald Weasley,” which also seems as an awkward sentence.
* In terms of expressiveness, it uses wide range of vocabulary and sentence structures such as “is a student of”, “one’s classmate is”, “is married to”, “is the wife of”, “is interested in”, “is 19 years old”, “is daughter of”, “is house member of”, “owns”, “is owned by”, “teaches course such as”, “is the father of”, etc.
* Interestingness
* The contents of the text is interesting with a wide range of vocabulary and thus the text is able to attract or hold reader’s attention. As the text gets long generating different topics due to the level-2 graph distance, it may be a good idea to make sections or order to organize the text.