## More ChatGPT: learning about how to learn about er, learning.

Or how I am spending too much time on ChatGPT. ChatGPT is now being incorporated into the Bing Search engine BTW.

And forget about the hand wringing about teachers being underpaid to read computer generated text or the oft-repeated end of the humanities, most dangerously, this will make it easier for people to write malware.

In terms of data literacy, literacy is literacy, right? So I asked ChatGPT to give me a simplified overview of what it does when a user types text into its interface. As an aside, I have been testing it with gibberish much akin to the Turkish thriller <a href="Hot Skull">Hot Skull</a> (see another <a href="post">post</a>): communication (ergo civilization) depends on iterative translation of understandable context and content – the Chomskean reference in the first episode of the show, I assume.

As you can see below from ChatGPT's response it is straight forward semantic analysis but this semiology is, to me, not the same as that for humans: machine semiotics ≠ human semiotics. But *how* is it different is what I am most interested by. Can machine dynamic semantics be trained solely using iterative utterance pairs? What can I learn about human learning from learning about machine learning trying to mimic human learning. Am I caught in a cyclical redundancy error?

When I receive a user's input, here is a more detailed explanation of the process I go through:

For example, I know that verbs are often used to describe actions or states of being, while nouns are used to name people, places, or things. Adjectives are used to describe nouns, and adverbs are used to describe verbs, adjectives, and other adverbs.

- 1. Tokenization: The first step is to split the input into individual words and punctuation marks, a process called tokenization. This allows me to analyze the input at the word level.
- 2. Part-of-speech tagging: Next, I assign a part of speech (such as noun, verb, adjective, etc.) to each word in the input, based on its definition and its role in the sentence.

- 3. Dependency parsing: I then analyze the relationships between the words in the input, taking into account their grammatical roles and the structure of the sentence. This allows me to understand the meaning of the sentence as a whole.
- 4. Sense disambiguation: If a word has multiple meanings, I use the context of the sentence and the rest of the input to determine which meaning is most appropriate.
- 5. Entity recognition: I also try to identify any named entities (proper nouns) in the input, such as people, places, and organizations.
- 6. Response generation: With all of this information, I can then use my knowledge and understanding of language to generate an appropriate response. This might involve looking up information, using my pre-defined responses to similar inputs, or using my understanding of the user's intentions to formulate a response.

In order to determine the role that a word is playing in a sentence (also known as its part of speech), I use my understanding of grammar and the relationships between words.

By analyzing the relationships between words in a sentence and their definitions, I can determine the part of speech of each word and understand the overall meaning of the sentence.

I followed up with a question about what item 4 was, which seems a key step in its assignation. How does it connect content with context?

Sense disambiguation is the process of identifying the correct meaning of a word in a given context. Words can often have multiple meanings, and it's important to choose the right one in order to understand the intended meaning of a sentence.

For example, the word "bass" can be a noun referring to a type of fish, or it can be a noun referring to a low-frequency sound or a range of notes in music. In order to disambiguate the sense of the word, it's necessary to consider the context in which it is used. If the word appears in a sentence about music, it is more likely to refer to a range of notes, while if it appears in a sentence about fishing, it is more likely to refer to a type of fish.

There are a number of techniques that I can use to disambiguate the sense of a word, including analyzing the surrounding words and phrases, considering the overall topic of the conversation, and using my general knowledge about the world. By using these techniques, I can choose the most appropriate meaning for a word and better

understand the intended meaning of the sentence.

 $\textbf{Source: } \underline{\textbf{https://www.idonthaveacoolname.com/more-chatgpt-learning-about-how-to-learn-about-er-learning/}\\$