Human vs. AI Learning Model for Word Frequency and Choice

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Prospectus

For this project I will attempt to create a Learning Model using the anaconda python framework to determine whether texts have been written by a human or AI using the text’s word frequency and choice. The project was decided based on a couple key criteria, most importantly my interest in Artificial Intelligence and its growing relevancy, AI and protection against it is on the forefront of computer science currently and I believe it would be in my best interest to not only attempt to understand how they are made, but also how behave and communicate. This in composition with the data science and analytic possibilities of gathering not only how AI writes differently than humans, but also whether it writes in specific patterns that could be recognizable based on diction determined my senior project.

In order to complete the project to my current understanding, I will have to gather extraordinary amounts of human and AI written texts from nonspecific fields, this is so that the data is not swayed by word repetition appearing due to subject topic. Once I normalize the data, I would then create a learning model to learn which differences appear in AI and human texts by marking which texts are human, and which are AI then allow it to process this data and attempt to make a model with a relatively accurate rate of prediction. The coding process will all be done in the anaconda framework of python as I have determined this to be the best data science and machine learning framework available from my limited research phase. Once the data has been gathered, I plan to push the data into data analytic tools such as Microsoft Power BI or orange, (Still need to choose). Once data has been analyzed and made tangible, I will compile it into a report for the final presentation. The MVP of the project should include a working learning model that could somewhat accurately predict whether or not AI is discernable from human written texts, and if it is not then a written report and data analytic report will be created explaining why this might not be possible. The risks that I will face in this project are numerous, including the inability to create the model due to limited knowledge on learning models, bias in the data given by various texts that sway the model to think a specific word means AI or human. Other risks include the accidental assignment of human texts to AI or AI written texts to the human category due to not completely knowing the origin of the texts. Potential users of the product are currently thought to be faculty of universities, professors, chairs, review boards, employers, or corporations looking to sway the use of AI generated texts.