Optimizing "Wordle" by Information Entropy

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In this poster, we demonstrate the application of information entropy to optimize strategies for solving "Wordle"-like puzzles. We start from the same basic rule as the "Wordle" game on the New York Times, where players have several chances to guess a 5-letter word. However, our puzzle has a significantly larger word pool, consisting of 15,921 possible 5-letter words, generated from the github repository "english-words"[1]. The goal is to maximize the information gained with each guess, which we measure using information entropy. We explore different strategies based on different order of Renyi entropy and discuss their difference in performance. The strategies, game simulators and data will be open sourced on the github repository "EntroWordler" (https://github.com/TianhaoLiu13/EntroWordler).

INTRODUCTION

Introdution.

REFERENCES

[1] dwyl, English words (github repository), https://github.com/dwyl/english-words (2025), accessed: 2025-02-24.