

THE FUTURE OF MACHINE LEARNING

PROJECT TEAM:

Dr. Randy A. Harris, English Language and Literature (Faculty); Dr. Olga Vechtomova, Management Sciences and Engineering (Faculty)

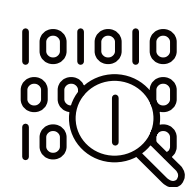
PROJECT TYPE:

Interdisciplinary Project

FUNDED BY:



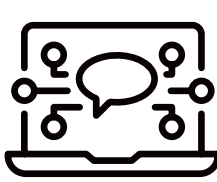
KEYWORDS



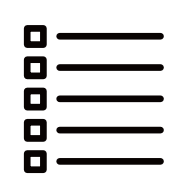
Machine Learning



Rhetoric



Natural Language Processing



Database

FREE-RANGE GAME SOURCING A RHETORICAL FIGURE DATABASE

Without an understanding of rhetoric and rhetorical figures (e.g. metaphors, figures of speech, and hyperbole), artificial intelligence (AI) will never be able to communicate and argue as effectively as humans.

Harris, a rhetorician turned computational linguist, aims to understand and improve how AI can be trained to better understand human speech and rhetoric. Accomplishing this level of AI language training requires large amounts of data and the expertise of linguists, rhetoricians, and computer scientists.

This interdisciplinary, international collaboration combines machine learning, natural language processing and the study of rhetorical figures to train AI to better understand different types of human communication. This multi-year project adapts a prototype of an existing citizen science game created by Harris and graduate students (GoFigure) to revolutionize methods of harvesting annotated data for training machine learning algorithms.

The team is working towards a large-scale free online release of the game in development to collect more players and – through their gameplay – more reliable data for training of AI language systems.

INTERESTING FACT:

In the next stage of the project the researchers plan to add Indigenous and other non-European languages to expand the data reach of the project.