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TL;DR – VotestratesML is...

A digital, collaborative learning tool

For exploring and creating ML models

For learning about and discussing the use of ML in Social Studies

Effective in scaffolding discussions through its grounding in Social Studies and through collaboration and competition
Why ML?

An emerging technology with major implications for our lives

Complex, and therefore difficult to understand ML itself – and also its implications
Why VotestratesML?

Current curriculum suggestions and learning tools focus on three aspects:

1. Concepts – what is ML?
2. Practices – how are ML systems made?
3. Perspectives – what are the implications of ML systems?

But – few tools focus on integrating the three aspects!
Machine Learning in a Social Studies context

Allows students to collaboratively create models for predicting voter behaviour using real world data.

Students compete in groups to create the best possible models.
The Three Components of VotestratesML

[Diagram showing three components: a1, a2, and a3, with a1 and a2 highlighted in red.]
Collaborative Component

- Data Processing
- Choose Features
- Choose a category to predict
- Set model parameters
- Train a model
- Share model to Competitive Component
Competitive Component

• See other groups’ models
• Compare parameters, etc.

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- Test models on personas of voters
- Test across all groups’ models
- Compare predictions and model configurations
Design and Evaluation

Two advanced Social Studies classes from the same high school in Aarhus, Denmark

Class A: 30 students
Class B: 31 students
Findings

• Utilising ML for achieving meaningful objectives and to advance their proficiency as social studies students.
• A starting point for discussing ML and its implications.
• Collaboration and competition supported discussions, and spurred curiosity.