

Election Polling

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Background

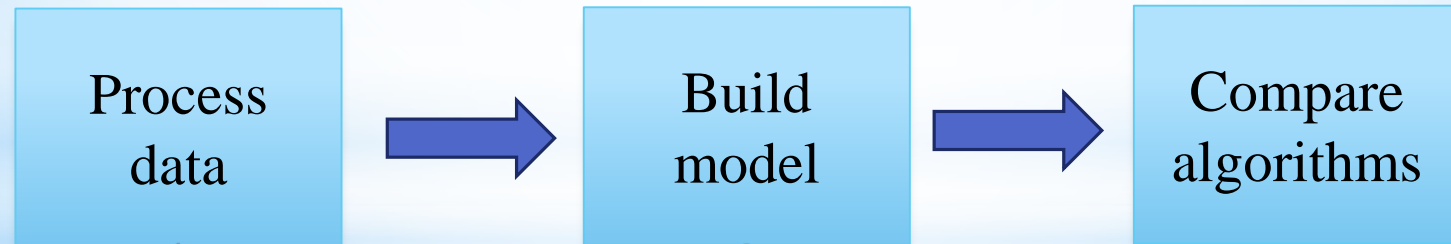
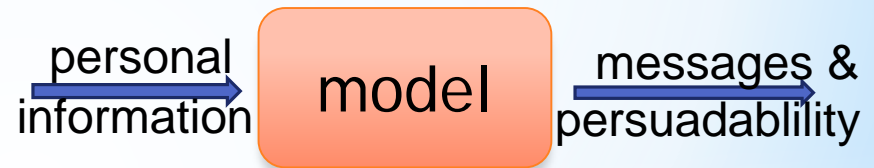
Ohio Marijuana Legalization,
issue 3, 2015

Data

Message testing data from
polling surveys provided by
Public Opinion Strategy:
demographic info + opinions on
the issue + views upon messages

Goal

Develop microtargeting strategy
for the opposition campaign of
future, possibly nationwide
marijuana legalization issue



Missing data
imputation

Low-effort
respondents

Decision Tree
Random Forest

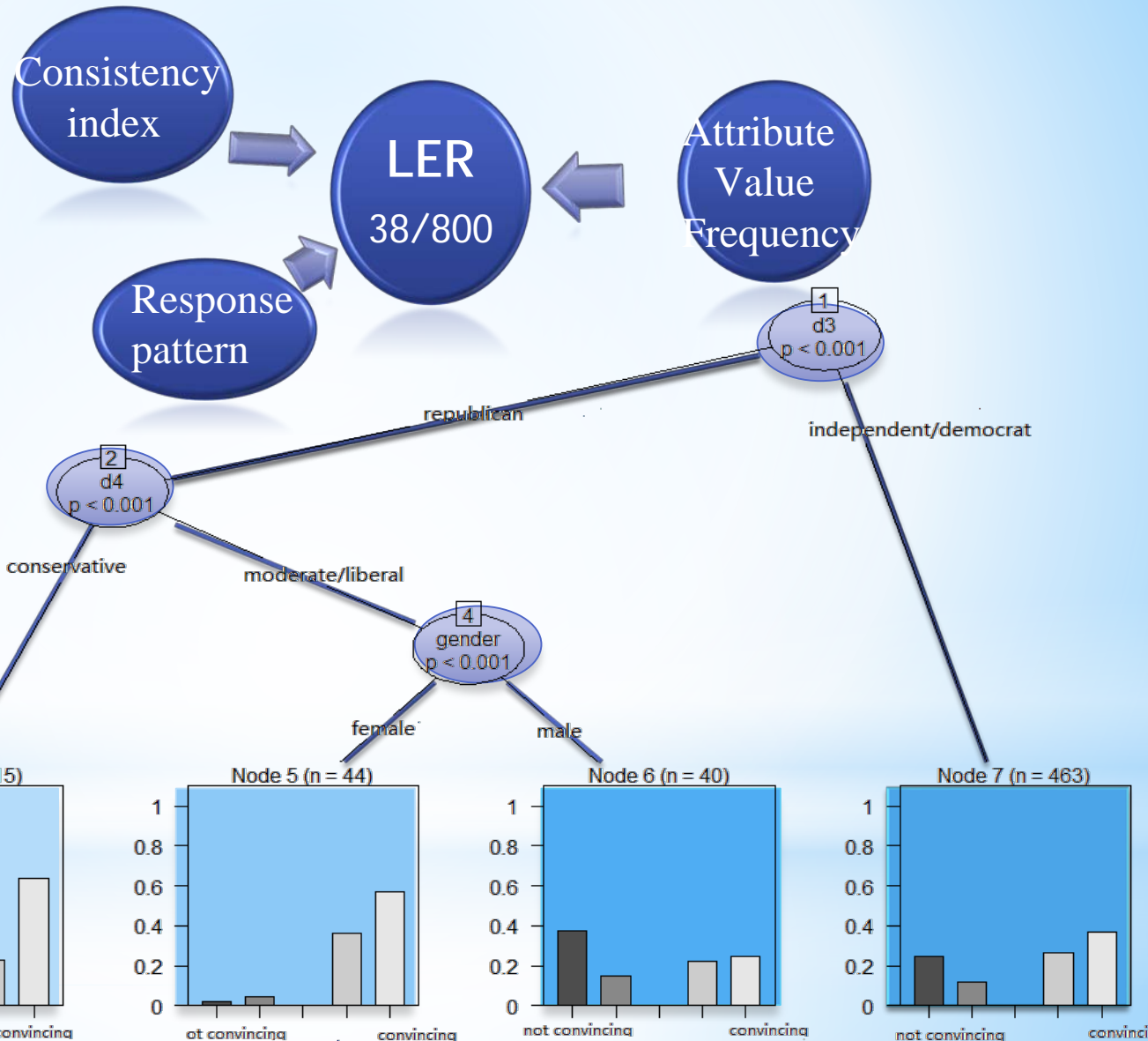
Machine learning
classification

Results

Low-Effort Respondents:
38/800

Decision Tree Models:
example

Further used:
Random Forest
(multitude of
decision trees)



Discussion

We implemented different kinds of classification algorithms attempting to find a classifier with better prediction accuracy than Decision Tree or Random Forest for our data.

Yet due to the limited information and size of our dataset, with all kinds of classifiers the best accuracies we can get for our models are slightly above 70%. However, our models can still provide insights for the opposition campaign to some extent. we advise our client to collect more data and on more information such as religion in the future if possible.

