

TACTICAL TERRORIST ANALYSIS: A Comparison of Statistical Learning Techniques to Predict Culpability for Terrorist Bombings in Two Regional Low-Intensity Conflicts

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May 2006

OVERVIEW

A variety of statistical classification techniques were applied to terrorism in two theaters – Iraq, Israel-Palestine

METHODOLOGY

Nine techniques (logistic regression, boosted logistic regression, CART decision trees, J48 decision tree, J48 with Adaboost, J48 with MultiBoostAB, J48 with Bagging, AdaBoosted J48 with Bagging and Multiboosted J48 with Bagging) were applied to the ISVG database for Iraq (2001-2005) and Israel-Palestine (2000-2005) in ten different scenarios.

FINDINGS

Prediction of al-Qaeda culpability in Iraq ranged from 70% to 80% accuracy with the meta-classifiers (boosting and bagging) most effective. No techniques were dramatically accurate in predicting Hamas attacks in the other theater.

FUTURE RESEARCH

Future work should focus on exploring alternative classification and learning techniques as well as other theaters to discover more about which techniques work best in different environments



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