

ALIAS SNARE Report



ALIAS: Automated Linguistic Identification and Assessment System *_SNARE Module 2008*

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CaseQD

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Statistical Model Decision CONTROL TEXT

ALIAS SNARE runs one test which compares the Case Questioned Document to a database of real suicide notes against a database of control documents which have similar characteristics to suicide notes. The control document database includes apology letters, love letters, trauma narratives, essays about anger, angry letters, complaint letters, simulated and real threats to known targets, business letters related to insurance and a small number of simulated and hoax suicide notes. The current databases include hundreds of real suicide notes and hundreds of control documents, for a total of a little more than one thousand documents. A statistical model for classifying suicide notes is built on these databases.

ALIAS SNARE assesses the Case Questioned Document based on the classification obtained from applying the current statistical model to the Case Questioned Document. Important linguistic features in this statistical assessment are: afterlife, blaming, hope, features of business correspondence, emotional states, conditionality, verb temporality and pronoun ratios.

The statistical model developed from these databases using Linear Discriminant Function Analysis. ALIAS SNARE is able to distinguish real suicide notes from the control documents at 88.6% accuracy.

Only 7% of the control documents are misclassified as real suicide notes, while almost 19% of the real suicide notes are misclassified as control documents, for an total error rate of 12%.

The Suicide Note Assessment Rating Chart depicts the current statistical model with the assessment for the Case Questioned Document written as "Suicide Note" or "Control Text." In the chart below, the statistical model's error zones are depicted by the lighter gray shades, while the model's correct rate for real suicide notes is depicted by the dark gray shade, and the model's correct rate for control documents is depicted by the blue shade.

In addition to ALIAS SNARE's classification of this Case Questioned Document, investigators should take into consideration the error zones and the important linguistic features as they occur or do not occur in the Case Questioned Document. Investigators should conduct their own assessment based on reading the text for the important linguistic features and other features from their own experience in suicide note assessment.

Suicide Note Assessment Rating

