Kemotions: Keys to Emotional Cues

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Traditional analysis of text has been limited to an analysis of the content to extract meaning and intent. New technologies now allow us to also measure the process of creating the content and provide an additional source of data for analysis and interpretation. This project studied how a subject's commitment was reflected in the typing patterns in creating the content. More specifically, the timestamp of each keystroke was measured and saved along with the specific key that was pressed. This allowed for several new measures to be created including the keystrokes per second, final character count, deleted character count, etc. It was hypothesized that the subject's typing pattern for a topic that they were in agreement with would be characteristically different than one that they were not in agreement with. This hypothesis predicts that if a person is writing a truthful account of a situation, they would have a different typing pattern than if they were lying about the situation. The study results supported the hypothesis and it was found that subjects typed faster and made less changes when writing about a situation they agreed with than one where they did not agree with it. Statistically significant differences in typing patterns were used to build a predictive model of a subject's level of conviction in typed content. The applicability of this finding is widespread, ranging from creating the equivalent of a "lie detector" test to authenticating the veracity of threats posted online.

Awards Won:
Third Award of $1,000
American Psychological Association: Third Award of $500