

Applying Mediated Statement Analysis to Detect Digital Deception and Misinformation Online



DECEPTION

RESEARCH NEED & SIGNIFICANCE

- ❖ Misinformation has become “the major moral crisis of our times” (Berg, 2017). Deception and misinformation are ubiquitous online (Drounin, 2016).
- ❖ Deception/misinformation is knowingly transmitting messages to a receiver with the intent to promote an untruthful belief or conclusion. (Al-Rodhan, 2017). “... Misinform, mislead... deceive ... distort...falsify...misrepresent...hedge, spin, lie (Walters, 2000).
- ❖ The assault on truth including misinformation, fake news, and alternative facts have created a “moral panic and a threat to democratic life” (Berg, 2017).
- ❖ Online users agree that deception/misinformation are prevalent on the Internet and are easily perpetrated without being caught (Caspi & Gorsky, 2006).
- ❖ When a person creates an untruthful story or statement, it often results in a different pattern of language use (Newman, et al., 2003).
- ❖ This has been a UNF DHI-Affiliated Project since 2021.

DETECTION

DEVELOPING MEDIATED STATEMENT ANALYSIS

- ❖ There is a lack of standard methodology to identify misinformation and suspicious, deceptive content online (Tsikerdekis, & Zeadally, 2014).
- ❖ Our research introduces Mediated Statement Analysis, or MSA, as a methodology to potentially identify deceptive interactions and digital misinformation when exchanging messages via mediated communication channels, including social media, mobile apps, and similar platforms.

ONLINE

DEVELOPING MEDIATED STATEMENT ANALYSIS

- ❖ Our project’s purpose is to explore mediated deception online by applying our methodology called Mediated Statement Analysis, or MSA.
- ❖ Nine (9) Mediated Statement Analysis (MSA) coding categories are developed (1) Word count, (2) detail & description, (3) exaggerated claims, (4) emotional & affective language, (5) excessive punctuation, (6) +/- paradigm, (7) direct numerical references, (8) qualifiers, hedges, & absolutes, and (9) combination of categories.

WHAT'S NEXT

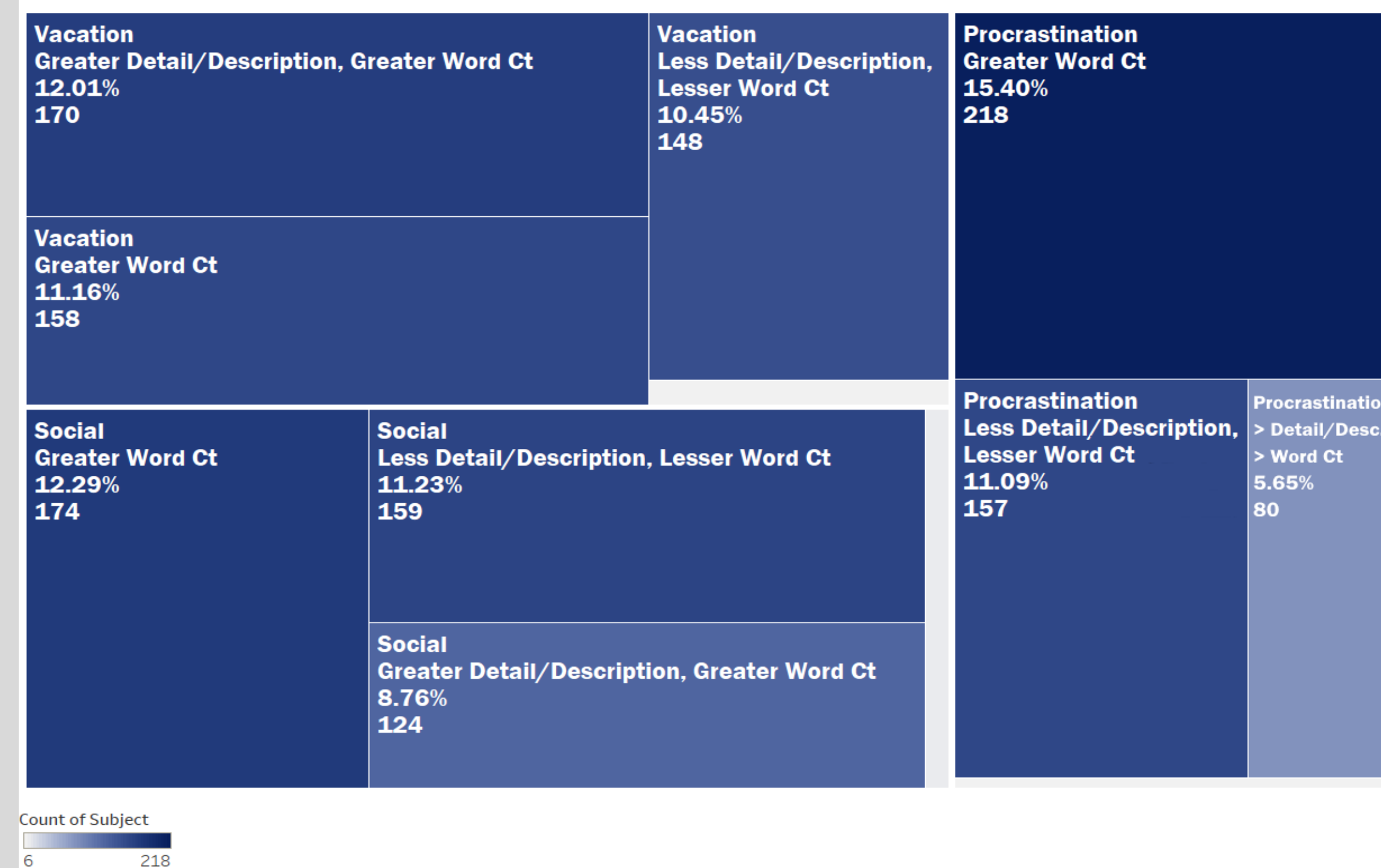
CURRENT PROJECT STATUS

- ❖ We have completed a pilot study analyzing 1,476 truthful and untruthful social media posts from 246 participants.
- ❖ Our Phase 2 data set is gathered and comprises of roughly 3,480+ truthful and untruthful social media posts from 580+ participants for further analysis to test and validate our MSA methodology for deception/misinformation detection online.

NEXT STEPS & IMPLICATIONS

- ❖ Using a combination of human coding and innovative artificial intelligence (AI) and machine learning techniques (e.g., classification models, decision-tree models and BERTopic models), these large sets of truthful-untruthful social media posts will be analyzed.
- ❖ Individuals, organizations, and communities – online & offline - have an increasing need to flag deception/misinformation online.
- ❖ Our project explores a potential identifier through MSA application.

Combination of Cues: Detail & Length



PROJECT CONTACTS:

Christa L. Arnold, Ph.D.
Associate Professor, Communication Studies
School of Communication
Christa.Arnold@unf.edu

Margaret C. Stewart, Ph.D.
Associate Professor, Communication Studies
School of Communication
m.c.stewart@unf.edu

F. Dan Richard, Ph.D.
Associate Professor, Psychology
Department of Psychology
drichard@unf.edu