

Influential Factors Impacting Disinformation Uptake

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Introduction / Motivation

A significant increase in disinformation has been observed recently, enabled in part by the ease with which individuals can create and distribute content online.

Studies to date have focused on developing detection algorithms as well as evaluation of impact (e.g., through analysis of retweets and associated analyses of social networks) [1,2].

Organizations (and individuals affiliated with them) have been shown to be targets for disinformation [3]. Research has not fully addressed the influence of disinformation on these parties.

This study is part of a larger portfolio of work that aims to address this gap. In particular, this work focuses on understanding and identifying ways to increase resilience of individuals within an organization.

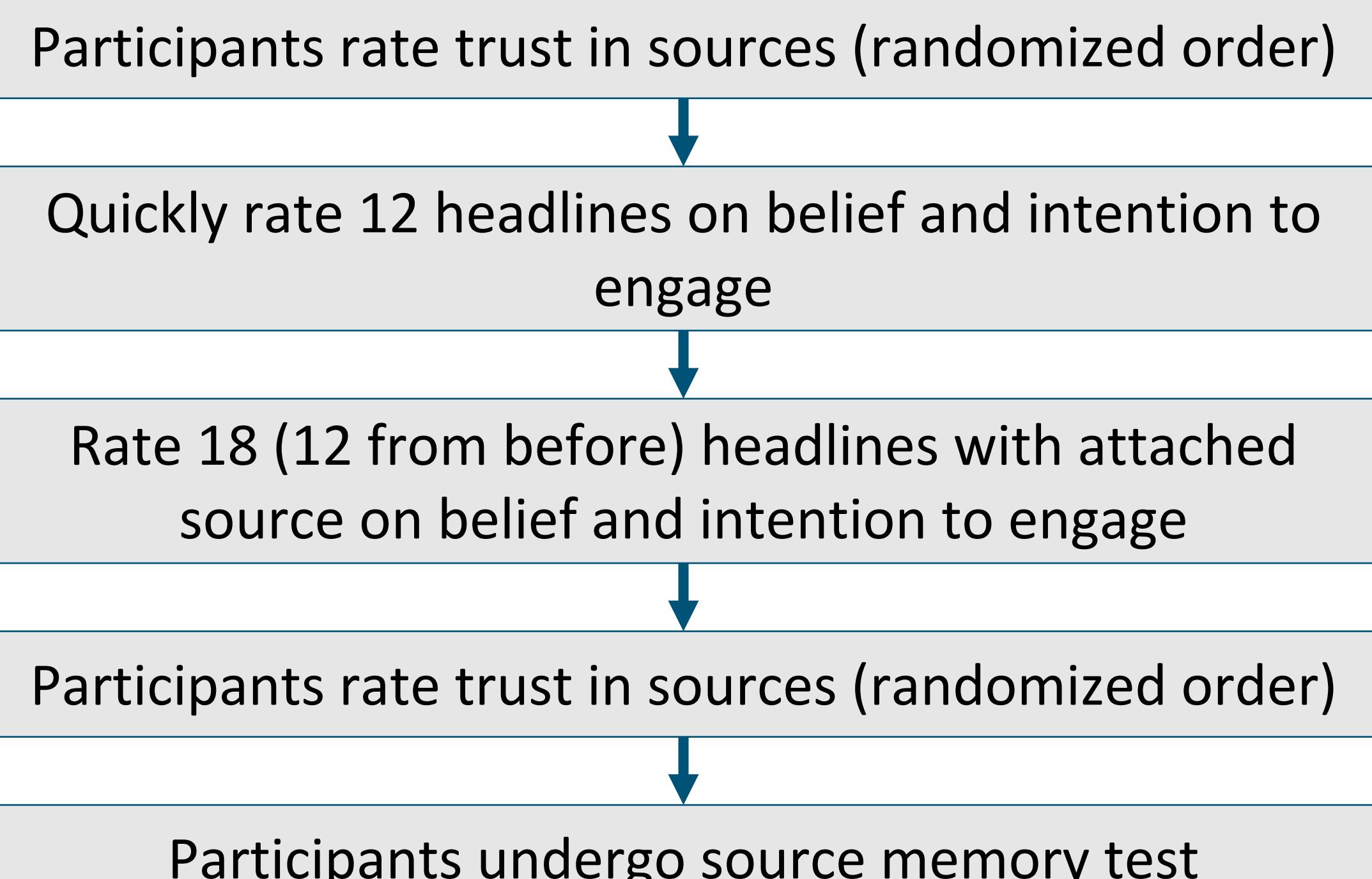
Approach

Human Subject Experiments (HSEs)

Disinformation research roots have recently been centered in cognitive and behavioral science. Utilizing these methods, we plan to better understand factors that could be used to protect and defend against disinformation.

1. Generate hypotheses - regarding factors that influence uptake of disinformation - that could be tested using experiments;
2. Obtain IRB approval for conducting online experiments with human subjects;
3. Design initial online experiment;
4. Pilot online experiment using human subjects from Mturk;
5. Update online experiment, as determined by learnings from pilot; and
6. Execute full online experiment.

Main study survey design



Current Status / Results

Collaboration began in late Fall 2021.

Research question has been determined and agreed upon.

Disinformation headlines have been developed to help generate a representative sample based on organizational interests.

Pilot Study was developed to assess sample of headlines in order to find a sample of balanced headlines (political lean and truth).

Pilot Study assessing headline validity has been executed.

Currently finalizing the main study, which will be run in April.

Example Headlines	
T	Navy fires U.S. nuclear submarine officers after underwater collision damage in South China Sea
T	NYC mayor-elect Eric Adams says he'll "take" his first three paychecks in crypto
F	Austin has fastest-growing tax increases of any major city in the nation
F	There are more oil rigs in operation in the United States than the rest of the world combined

Challenges

This study begins to answer questions related to susceptibility of individuals to disinformation as a function of information sources.

There are a few limitations in the initial study design that challenge our ability to:

- Extend findings to organizational contexts without a specific organization for testing,
- Effectively replicate findings due to the dynamic environments in which individuals are exposed to disinfo., &
- Evaluate whether results apply beyond datasets tested (format and content) and to other nationalities (cultural/regional specificity)

Next Steps / Future Work

In addition to analyzing the online experiment results, our next steps focus on beginning to address some of the mentioned challenges to:

- Better capture organizational nuances within HSEs (e.g., through recruitment of individuals from an organization and/or inclusion of an interactive decision-making exercise);
- Incorporate of HSE findings into a modeling and simulation framework to better capture the dynamic nature of decision-making; &
- Assess generalizability of findings by studying participants from different regions and/or using different case studies (e.g., climate vs. pandemic).