CYSE 201S

Article Review #2: MINDSET Adjustment

Student Name: Fallon Sullivan

School of Cybersecurity, Old Dominion University

CYSE 201S: Cybersecurity and the Social Sciences

Instructor Name: **Diwakar Yalpi**

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INTRODUCTION

The article and research proposes that updating the public on advancements in AI voice synthesis capabilities has more impact on positive identification of AI voices than simply urging people to be alert. The phenomenon the article calls the "MINDSET" an acronym for Minority, Indigenous, Non-standard, and Dialect-Shaped Expectations of Technology, is stated to be more dangerous for some communities with heavier accents, because there is a disproportionate amount of people who aren't yet aware that AI can replicate these sorts of accents.

Relation/Connection to Social Science Principles

This article primarily relies on the principle of relativism - that all social phenomena are related to their context. In this context, the phenomenon is the disadvantage communities with heavier accents and more regional dialects have to identify AI synthesized voices.

Research Question/Hypothesis/Independent Variable/Dependant Variable

The primary research question would be: "Is the bias toward classifying AI voices as human intensified when introduced to underrepresented or non-standard accents due to the MINDSET phenomenon?

The hypothesis is that this MINDSET is indeed the cause and that updating individuals on the capabilities of AI voice synthesis will be more beneficial than simply telling them to be vigilant.

The independent variables in the studies conducted would be whether the researchers informed the participants about the capabilities of AI to reproduce, in this case, a Scottish accent or not. This also included a negative condition where some were told that the AI could not reproduce these specific Scottish accents.

The dependent variables are those participants who were given no updated information on the capabilities of AI voice synthesis.

Types of Research Methods Used

The research method used in both experiments involved tasks where the participants listened to recordings of speakers with Scottish dialects, and then were asked to identify whether the recording was AI or human. The second experiment involved further warning against the dangers of mistaking AI for human in regards to scam calls and identify fraud attempts.

Types of Data Analysis Used

A meta-analysis was formed from both experiments which positively coincided with the hypothesis' projection that being more informed is the ultimate defense against deception.

Connections to other Course Concepts

There is a large argument to be made that the conclusion of this research backs up what we learned about the human firewall in this course. The evidence reveals itself quite easily - the more informed one is on the capabilities, methods, and tactics employed by bad actors, the more prepared one is for combatting them and thwarting their efforts.

Connections to the Concerns or Contributions of Marginalized Groups

There is a large case to be made here about how this research could positively impact the lives of marginalized groups. Much of the time, communities with non-standard dialects, or with less access to the internet openly, have much less information about the capabilities of what these technologies can achieve. In this case, one could argue that five years ago an American-accented robotic voice auto-calling into a Taiwanese telephone to ask for personal information would be easily dismissed as a scam. Now imagine that same call, but with an AI voice that has a more convincing local accent or even speaks your language. It would be easy to mistake it as a genuine human.

Overall Societal Contributions of the Study/Conclusion

This study has some serious implications for the future defense against what the article calls “The dark arts” or the misuse of AI technology. It has identified a

problem in our current methods of warning against, and training in defense against AI-replicated voices. By identifying weaknesses in our current methods, the study provides better alternatives and encourages us to update our understanding of AI speech.

REFERENCE

Neil W Kirk, Vigilance towards AI voices can be nudged through a change in 'MINDSET', *Journal of Cybersecurity*, Volume 12, Issue 1, 2026, tyag001, https://doi.org/10.1093/cybsec/tyag001