The Multiple Platforms Effect (MPE): A Quantification of How Exposures to Similarly Biased Content on Multiple Online Platforms Might Interact

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Summary

Over the past decade, controlled studies have identified nearly a dozen new forms of manipulation that can be used by search engines, social media platforms, microblogging platforms, and intelligent personal assistants. A recent study has shown that when users were exposed repeatedly to similarly biased content on the same platform, the net impact of those exposures was additive[1]. We now ask: What happens when users are exposed to similarly biased content generated by different means on multiple online platforms? In the present experiment, which was randomized, controlled, counterbalanced, and double-blind, we exposed people to similarly biased content generated by different means on three different platforms – simulations of Google Search, Alexa, and X (f.k.a., Twitter) – presented successively and in random order, and we found that the impact of successive exposures was additive for both opinions and voting preferences pertaining to political candidates. Overall, the number of undecided voters voting for the favored candidate increased with each successive platform exposure by 42.4%, then 56.5%, then 66.7% over the pre-exposure level. Participant ratings for their opinions about the favored candidate also increased significantly with each successive exposure. We speculate that if Big Tech companies share values or political preferences, their net effect on our elections might be considerably greater than the effect of any individual company. Manuscript available at https://MultiplePlatformsEffect.com.

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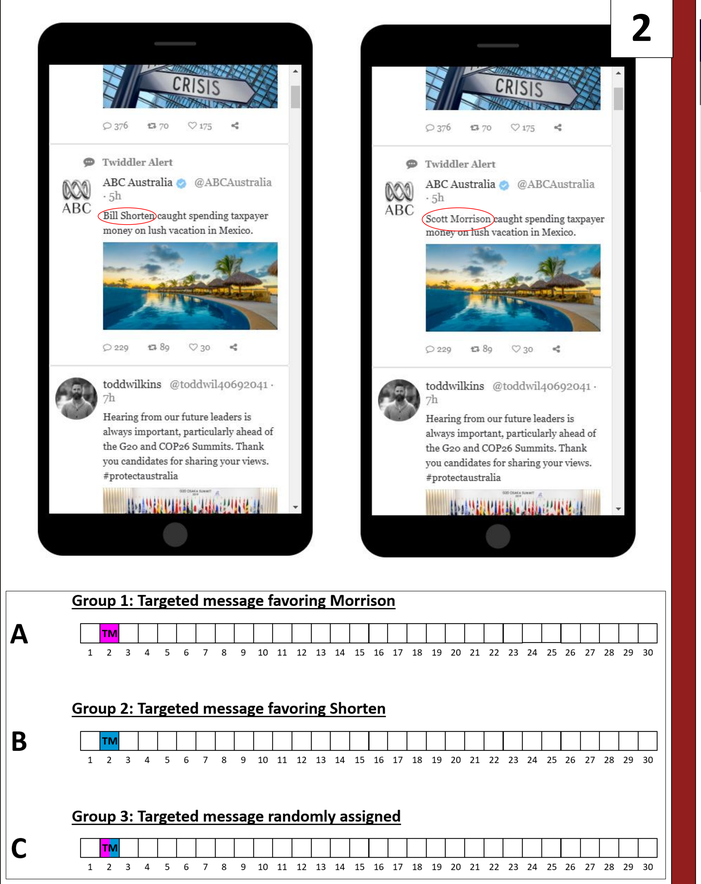

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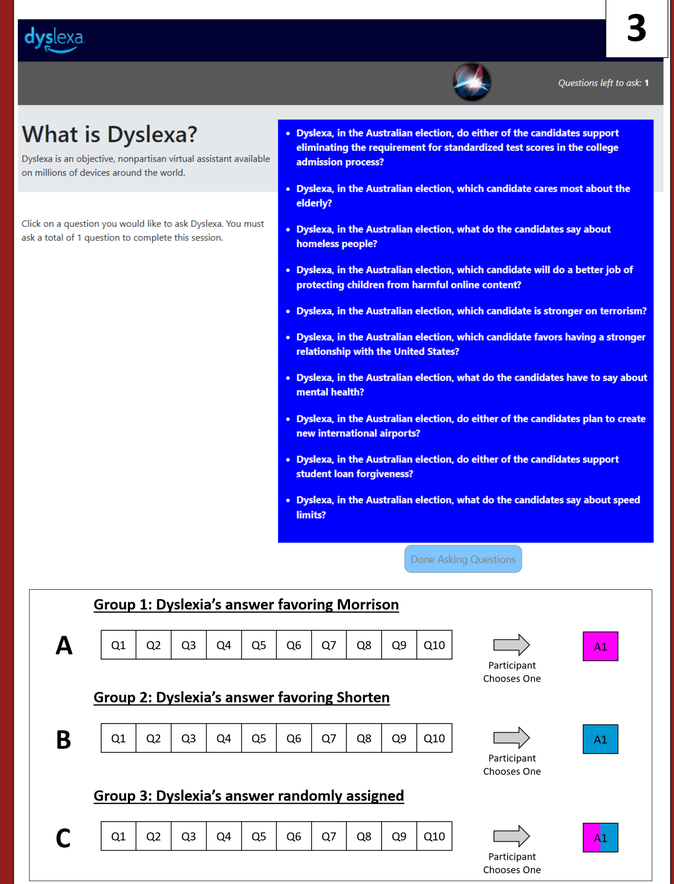

4 Methods

Participants were recruited online from the Amazon Mechanical Turk (MTurk) subject pool and were screened by CloudResearch. Participants were required to be at least 18 years old, be eligible to vote in the U.S., and be unfamiliar with Australian politics. After screening, we had data from 536 participants to analyze. Our experimental procedure was as follows:

1. Participants read short, roughly equal paragraphs about two candidates who ran for Prime Minister of Australia in 2019 – Scott Morrison and Bill Shorten.
2. Participants answered 8 questions about liking, trust, overall impressions, and voting preferences for the two candidates.
3. Participants were given brief instructions and asked to conduct research on either, Kadoodle, Twiddler, or Dyslexa. The platform was randomly assigned.
4. Participants answered the 8 opinion and voting questions again.
5. Participants repeated the pattern until they had seen all three platforms and answered the questions a total of 4 times.

5 VMP Calculation

$$\text{VMP} = \left(\frac{p' - p}{p}\right) \times 100$$

p is the total number of people who voted for the favored candidate pre- manipulation.

p' is the total number of people who voted for the favored candidate post-manipulation.

6 Results

Platform	VMP	X^2
1	42.4%	46.02***
2	56.5%	72.07***
3	66.7%	92.49***

***$p < .001$

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References

1. Epstein, R., Newland, A., & Tang, L.Y. (2024). The "multiple exposure effect" (MEE): How multiple exposures to similarly biased online content can cause increasingly larger shifts in opinions and voting preferences. *SSRN*. https://MultipleExposureEffect.com