

Garrett Smith, Sarah Carson, Rhea G Vengurlekar, Stephanie Morales, Yun-Chieh Tsai, Rachel George, Josh Bedwell, Trevor Jones, Mainack Mondal, Brian Smith, Norman Makoto Su, Bart Knijnenburg, and Xinru Page. 2024. "I Know I'm Being Observed:" Video Interventions to Educate Users about Targeted Advertising on Facebook. In Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24). Association for Computing Machinery, New York, NY, USA, Article 112, 1–27.
<https://doi.org/10.1145/3613904.3642885>

<https://dl.acm.org/doi/10.1145/3613904.3642885>

Recent work explores how to educate and encourage users to protect their online privacy. We tested the efficacy of short videos for educating users about targeted advertising on Facebook. We designed a video that utilized an emotional appeal to explain risks associated with targeted advertising (fear appeal), and which demonstrated how to use the associated ad privacy settings (digital literacy). We also designed a version of this video which additionally showed the viewer their personal Facebook ad profile, facilitating personal reflection on how they are currently being profiled (reflective learning). We conducted an experiment ($n = 127$) in which participants watched a randomly assigned video and measured the impact over the following 10 weeks. We found that these videos significantly increased user engagement with Facebook advertising preferences, especially for those who viewed the reflective learning content. However, those who only watched the fear appeal content were more likely to disengage with Facebook as a whole.

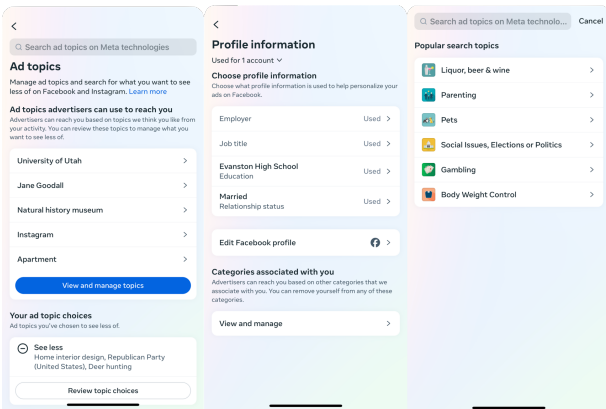
"I Know I'm Being Observed": Using Video Interventions to Educate Users About Targeted Advertising on Facebook

G. Smith, S. Carson, R. Vengurlekar, S. Morales, Y. Tsai, R. George, J. Bedwell, T. Jones, M. Mondal, B. Smith, N. Su, B. Knijnenburg, X. Page



Motivation

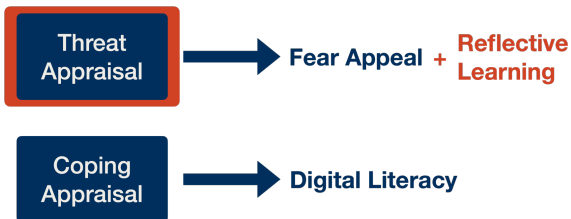
The targeted advertising platform on Facebook enables advertisers to hyper-curate advertisements to users based on their demographics and inferred interests. This has led to examples of age, gender, and racial discrimination. Facebook provides users with advertising preferences to enable users to control how advertisers can target them. However, many users either can not find these settings or do not know how to use them.



Design

We applied Protection Motivation Theory in the design of educational persuasive videos to educate and motivate users to care about targeted advertising on Facebook. These videos included a realistic – hypothetical scenario regarding potential discrimination through targeted advertising and an explanation of Facebook's advertising preferences, where users can find them, and how to use them.

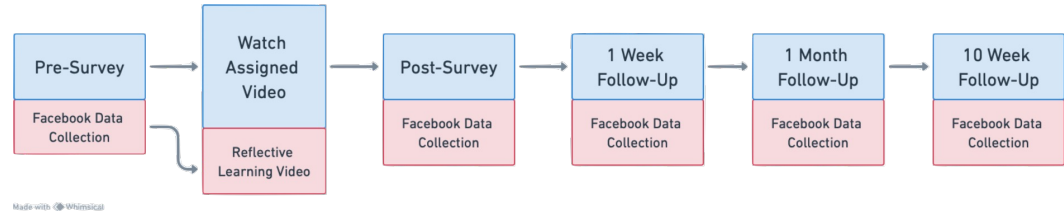
We created a second video with an additional reflective learning content to further increase users perceived susceptibility to discrimination.



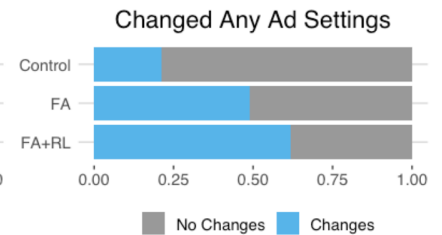
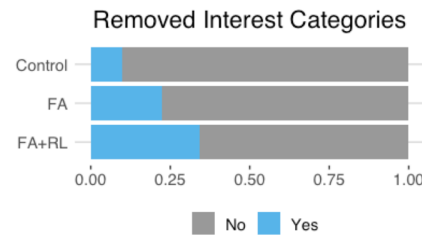
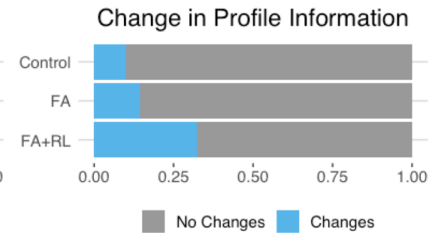
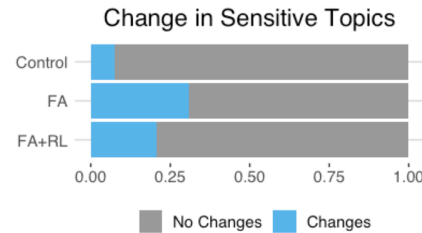
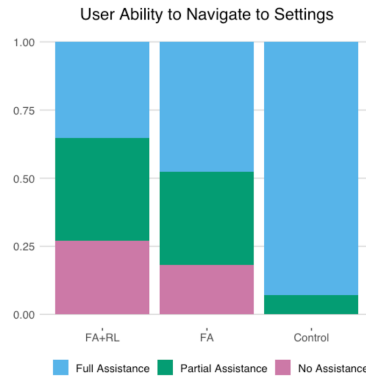
Methodology

Recruited (n=138) university students and employees

- Randomly assigned to watch one of:
1. Fear Appeal
 2. Fear Appeal with Reflective Learning
 3. Control Video



Results



Takeaways

Fear appeal with reflective learning leads to most robust change

Fear appeal without reflective learning may lead to withdrawal altogether

This persuasive pattern could potentially be used in other fields such as public health, the environment, or digital security and safety.

Full Paper

Garrett Smith, Sarah Carson, Rhea G Vengurlekar, Stephanie Morales, Yun-Chieh Tsai, Rachel George, Josh Bedwell, Trevor Jones, Mainack Mondal, Brian Smith, Norman Makoto Su, Bart Knijnenburg, and Xinru Page. 2024. "I Know I'm Being Observed:" Video Interventions to Educate Users about Targeted Advertising on Facebook. In Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24). Association for Computing Machinery, New York, NY, USA, Article 112, 1–27.

