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

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Motivation

- Targeted advertising customizes ad delivery based on user demographics and inferred interests.
- This can lead to age, gender, and racial discrimination.
- Facebook advertising preferences can be used to control ad targeting
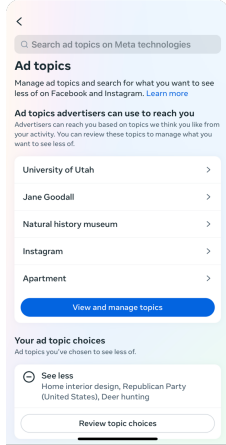- Users do not know how to use or find these settings.

Figure 1: Screenshot of Facebook's advertising topics settings page.

Design

- Using Protection Motivation Theory, two videos were designed to increase users threat perception and self efficacy by educating viewers about targeted advertising.

- These videos were intended to influence users threat coping appraisals by elevating their threat perception through a fear appeal scenario.

- A second video included additional reflective learning content to enhance users' perceived susceptibility to discrimination.

Threat Appraisal → Fear Appeal + Reflective Learning

Coping Appraisal → Digital Literacy
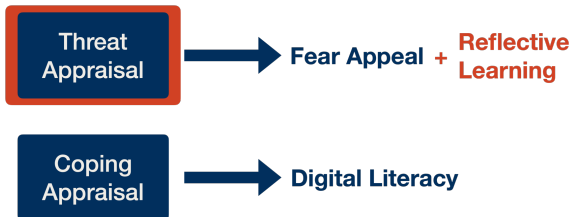
Methodology

Recruited (n=127) university students and employees

Randomly assigned to watch one of:
1. Fear Appeal (FA)
2. Fear Appeal with Reflective Learning (FA+RL)
3. Control Video (Control
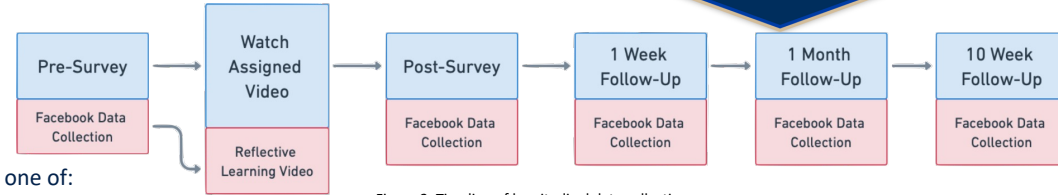
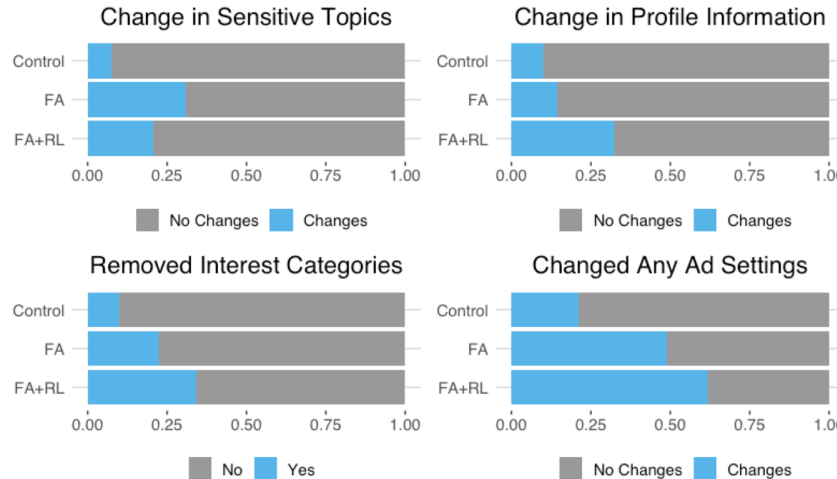Figure 2: Timeline of longitudinal data collection

Results

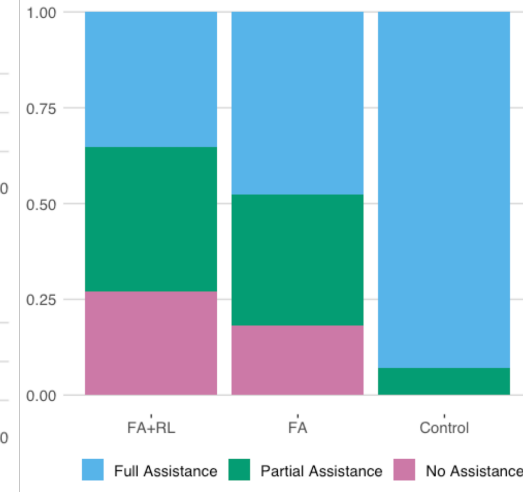Figure 3: Percentage of participants that made changes to their advertising settings.

Figure 4: Percentage of participants that needed assistance finding Facebook's advertising settings.

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.