

Abortion Data Privacy: Analysis of Third Party Tracking

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Background



Privacy is an increasing concern for individuals seeking or providing abortions after the ruling in *Dobbs v Jackson's Women's Health Organization*



3rd-party requests occur on 99% of hospital [1] and abortion-clinic websites [2]



Personalized ads use 3rd-party tracking across multiple sites and can reveal medical information

Research Question

Are there more personalized, abortion-related sensitive advertisements for abortion-seeking individuals than for generic Internet users?

Methods

Study Overview



Training Phase: User profiles built by visiting websites



Testing Phase: Ads collected and analyzed

Training Phase: Python automated script



User



Load webpage + scroll to bottom



Choose and visit 5 sublinks

Training Websites Visited:

Condition	Websites visited
Control A: Generic	110 Generic
Control B: Generic	110 Generic
Exp. A: Abortion Clinic	10 Abortion Pill + 100 Abortion Clinic
Exp. B: Abortion Clinic	10 Abortion Pill + 25 Generic + 85 Abortion Clinic
Exp. C: Crisis Pregnancy Center (CPC)	10 Abortion Pill + 100 CPC

Testing Phase: NodeJS automated script



Webpage loaded



Ads clicked + screenshotted



Ads manually classified

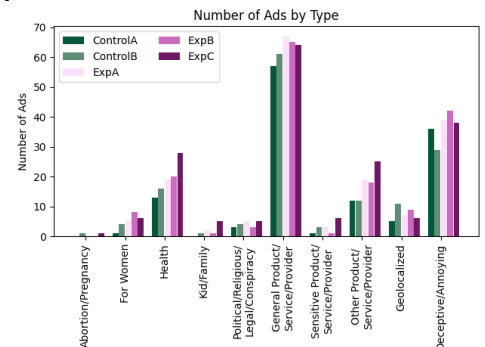
Testing Websites:

- 10 general news websites
- 10 health information/misinformation sites

Results

Ad Distribution

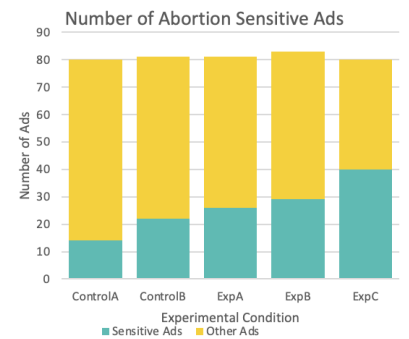
More health-related ads for experimental conditions than control



Ratio of Sensitive Advertisements

Sensitive Ads = ads related to info that could be used to imply a pregnancy/abortion, e.g., abortion products, babies, women's products

Ratio of sensitive ads is higher for abortion-seeking conditions than control



Conclusions

- **More health-related and sensitive ads shown for individuals visiting abortion-related webpages,** indicating 3rd-party tracking is occurring across these websites
- Understanding these risks is necessary for users to make informed choices about websites to visit and privacy-preserving behaviors to engage in

Future Directions

- **Minority, Gender, Income Status** : are individuals tracked differentially based on gender/race/socioeconomic status?
- **Privacy Policy analysis:** Do abortion websites contain privacy policies and is data sharing in line with policy?
- **Privacy Preserving behaviors:** are there extensions that reduce third party tracking?

[1] A. B. Friedman et al., "Widespread Third-Party Tracking On Hospital Websites Poses Privacy Risks For Patients And Legal Liability For Hospitals," *Health Aff. (Millwood)*, vol. 42, no. 4, pp. 508–515, Apr. 2023, doi: 10.1377/hlthaff.2022.01205.

[2] A. B. Friedman, L. Bauer, R. Gonzales, and M. S. McCoy, "Prevalence of Third-Party Tracking on Abortion Clinic Web Pages," *JAMA Intern. Med.*, Sep. 2022, doi: 10.1001/jamainternmed.2022.4208.