

Conducting public health surveillance research on consumer product websites

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Background and Objectives

Background

- Marketing of harmful and potentially harmful products has been associated with important public health issues, including increased product usage¹⁻⁵
- Product websites are an emerging area for public health surveillance
- Terms of Service (TOS) governing access to product websites restrict access and website usage and may impede surveillance efforts

Objectives

- Describe what activities companies are prohibiting or restricting in their TOS contracts
- Describe how companies are regulating website access
- Outline ethical and legal implications of conducting research on websites in light of TOS

Methods

SAMPLE

- A sample of 14 top brands in domains relevant to public health (2 tobacco, 4 alcohol, 2 psychiatric pharmaceutical, 3 fast food, and 3 firearms) were identified using Statista, a "statistics portal for market data, market research, and market studies"
- Only brands whose TOS were governed by laws in the United States were included

PROCEDURE AND MEASURES

- TOS from each of the 14 identified websites were coded using line-by-line open coding
- Two secondary coders conducted confirmatory coding

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Age restrictions
Other access restrictions
Registration requirements
Restrictions on sharing account information
Accuracy of user information
Required user acceptance of TOS
Changes to TOS
Consequences of violating TOS
Prohibited and allowable actions with website material
Location of law governing TOS
Required compliance with applicable local laws

ANALYSIS

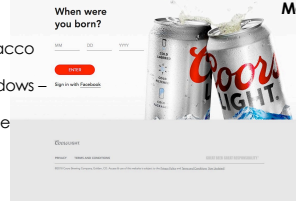
- The proportion of websites employing each code was calculated, and differences and themes by product type were assessed

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Results

- Both tobacco websites had registration windows – required registrants to be tobacco users
- All four alcohol websites had popup windows – for age/date of birth
- All product websites stated that use of the website constituted acceptance of TOS
- 11 TOS required users to comply with applicable local laws



Main Findings

- All specified a US state whose laws govern and interpret the TOS and serve as a location for any future litigation – 10 unique states were listed for the 14 website sample
- 12 websites stated that they could revoke user's access at any time

Highly restrictive

- 5 TOS (2 tobacco, 2 alcohol, and 1 fast food) allowed users to view website material but did not allow users to do anything else with website material without prior authorization from the company or unless otherwise indicated on individual webpages

Moderately restrictive

- 7 TOS (2 alcohol, 1 pharmaceutical, 2 fast food, 2 firearm) allowed downloading, copying, or displaying website material, but prohibiting sharing or distributing material in any way

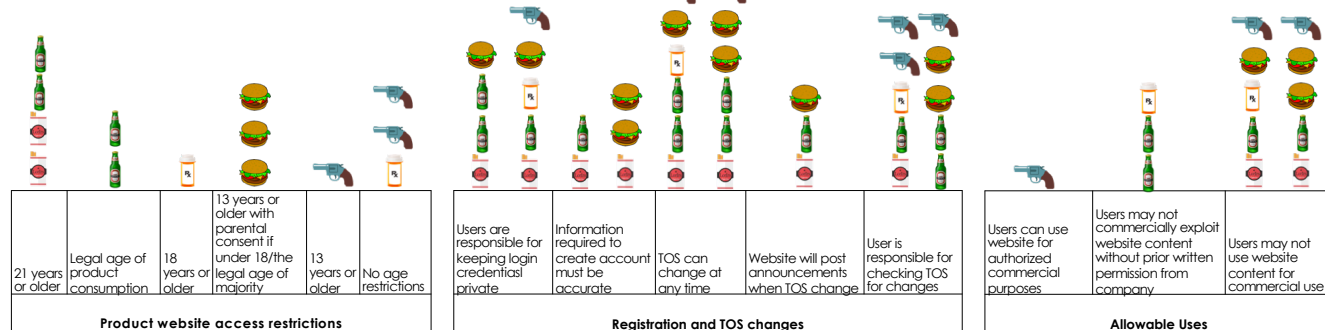
Minimally restrictive

- 2 TOS (1 pharmaceutical, 1 firearm) allowed copying and/or downloading as well as sharing or distributing (even in limited circumstances)

Consequences for breaking or violating the TOS

Having the user's IP address blocked so they could no longer access the website	Terminating login credentials	Deleting user content from the website
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Bringing legal action against the user resulting in civil or criminal penalties



Discussion

- TOS, written by corporate entities, restrict researcher access to tobacco websites and restrict activities necessary for research on other types of websites**
- Many researchers may not be aware that legally, they could be sued for breach of contract for violating TOS, and are vulnerable to such legal challenges
- Universities may not be willing to support researchers in these efforts because knowingly violating TOS is illegal
- Some websites are not accessible to researchers because of registration requirements. While it is a violation of TOS to provide false information to register, providing false information to corporations (which are not persons) should not be considered deception and is ethically justifiable
- Research on product websites is necessary to inform marketing regulation that ultimately protects the public's health, but TOS impose serious legal barriers. When faced with the decision to illegally violate TOS contracts or to not conduct important research, is it more unethical NOT to conduct such research?
- It is imperative that we identify and develop guidelines to protect researchers involved in surveillance of online commercial spaces

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References

1. Avery, R. (2012). The Impact of Direct-to-Consumer Television and Magazine Advertising on Antidepressant Use. *Journal of Health Economics*, 31(5), 705.
2. Cairns, G., Angus, K., Hastings, G., & Caraher, M. (2013). Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. A retrospective summary. *Appetite*, 62, 209–215.
3. de Bruijn, A., Tanghe, J., de Leeuw, R., Engels, R., Anderson, P., Beccaria, F., ... van Dalen, W. (2016). European longitudinal study on the relationship between adolescents' alcohol marketing exposure and alcohol use. *Addiction*, 111(10), 1774–1783.
4. Lovato, C., Watts, A., & Stead, L. F. (2011). Impact of tobacco advertising and promotion on increasing adolescent smoking behaviours. *Cochrane Database of Systematic Reviews*, (10).
5. Wintemute, G. J. (2002). Where the Guns Come from: The Gun Industry and Gun Commerce. Source: *The Future of Children*, 12(2), 54–71.