POLICY BRIEF



Regulating Digitally Manipulated Advertising in the United States to Prevent Eating Disorders

WHAT IS THE PROBLEM?

In the social media age, it is standard practice for photographers and digital media production specialists to correct perceived "flaws" in the appearance of models. 1-5 Using software tools like Photoshop, models' skin tones are lightened, wrinkles and blemishes are removed to make them look younger, and their body size and shape are altered to reflect prevailing norms.

Exposure to these unrealistic and unattainable beauty norms has profound negative effects on public health: It is a key risk factor for eating disorders. Eating disorders are serious mental illnesses that will affect 30 million children, teenagers, and adults in the United States in their lifetimes, across all genders, racial and ethnic groups, and socioeconomic statuses. A recent meta-analysis of experimental psychology studies found that exposure to media that promotes a thin ideal body type results in measurably increased eating disorder symptoms, particularly in girls and young women.⁶ This is troubling given that 95% of US teens ages 13-17 years report having access to a smartphone, and young people globally report high rates of media consumption.⁷⁻⁹ High media consumption in turn is associated with indicators of poor mental health among young people.^{10,11}

It is clear that despite the humor of the occasional three-handed Oprah, unrealistic advertisements are no laughing matter. The issue has concerned the American Medical Association since at least 2011, when they released a position statement encouraging guidelines be developed for advertising to "discourage the altering of photographs in a manner that could promote unrealistic expectations of appropriate body image." 12 Yet very little has changed since then. We must urgently protect young people from the corrosive effects of an appearance-focused culture with narrow standards for "beauty." But how?

DEFINING AND DETECTING DIGITALLY ALTERED ADVERTISEMENTS

Understanding that most if not all images in advertising have been modified on a computer and therefore "digitally altered" in the strictest sense of the term, legal scholars use the term "digitally altered advertisements" or DAAs to describe commercial images where a human model's skin tone, skin texture including wrinkles or blemishes, body size, or body shape are changed, typically to conform to societal beauty norms. Under this definition, an advertisement that lightened an African-American model's skin tone would be considered a DAA, but an advertisement that digitally colored an actor's skin blue because she is playing an alien or supernatural creature would be acceptable. DAAs can be detected and quantified using machine learning techniques. Scientists Eric Kee and Hany Farid recently produced a computer algorithm that can compare a finished, retouched image to its original and quantify the degree of photo editing that has occurred. This algorithm or one like it could be used to implement or enforce any potential solution aimed at reducing DAAs in advertising.

One seemingly intuitive solution would be to add warning labels to DAAs to inform consumers that they are not realistic. However, mounting scientific evidence shows that in the case of DAAs, this approach is likely to fail and could even do more harm than good. In several studies, warning labels have had little to no effect on body dissatisfaction. In another study, retouching disclaimers led to worse self-esteem among US teens, which researchers called "the boomerang effect." In light of this clear research evidence, warning labels on DAAs are not recommended: They are not likely to be effective and run the risk of causing more harm to the very consumers we seek to protect.

State leaders could consider harm reduction initiatives, such as funding and implementing school curricula intended to prevent eating disorders. Media literacy training can buffer the negative impacts of media exposure overall, ¹⁸ and some nutrition curricula have demonstrated positive eating disorders prevention outcomes. ¹⁹ While potentially helpful, these interventions may not be able to fully protect their targets from the harmful effects of many years of ongoing exposure to DAAs. We need solutions that address the sources, rather than the targets, of digitally retouched images of models in the mass media.

RESTRICTING DAAS NATIONALLY THROUGH FEDERAL REGULATION

Advertising is legally considered commercial speech and given some protection under the First Amendment, so an outright ban on DAAs would not pass Constitutional muster. Advertisements that may mislead consumers, however, are regulated by the Federal Trade Commission (FTC). A bill introduced to the U.S. House of Representatives in 2016 by Rep. Ileana Ros-Lehtinen (R-FL) would have required the FTC to conduct research into consumer harm associated with DAAs. The resulting report would likely lay the groundwork to classify DAAs as deceptive advertisements, giving the FTC the power to regulate them. While this is a viable strategy, it would take many years to get passed into law and then to implement in a meaningful way. If we wait for this type of federal action to move forward, *millions of young people will continue to be exposed to the pernicious effects of DAAs year after year*. Policymakers and advocacy organizations must consider additional strategies to protect young people from the harms of DAAs.

SOLUTIONS THROUGH TAX LAW

The tax system may offer our strongest and most viable policy options to discourage the use of DAAs. The Supreme Court has given Congress virtually complete discretion to grant or refuse tax subsidies on the basis of content. Currently, the Internal Revenue Code broadly allows businesses to deduct advertising expenditures from their taxes. As it currently stands, businesses can deduct 100% of advertising and promotional costs that clearly relate to the business. Eliminating or reducing this tax subsidy for advertisers that continue to purchase and market DAAs is one potential way to combat the practice.

The current advertising deduction incentive exists only as part of the federal tax code. State lawmakers could discourage the use of DAAs by levying a selective tax against them, while leaving unaltered images untaxed. A tax paid by businesses that purchase DAAs or firms that sell them might decrease the use of DAAs within a particular state. However, implementation is likely to be



complicated by interstate commerce issues.¹³ Experts in specific state tax laws are needed to determine if states or cities can implement strategies similar to the federal advertising deduction incentives proposed above.

CERTIFICATION PROGRAM TO INCENTIVIZE CORPORATE SOCIAL RESPONSIBILITY

The sources of DAAs in the US—advertisers—are overseen by an independent organization, the Advertising Self-Regulatory Council (ASRC), which imposes voluntary regulations on participant businesses. The ASRC has called to end digital manipulation of models in cosmetics advertisements—and some brands are listening. Several high-profile brands have initiated campaigns that comply with ASRC's guidance, including Aerie and Dove, and have been met with commercial success. Developing a voluntary certification program based on the ASRC's guidance, similar to the U.S. Green Building Council's LEED Certification system or the Asthma and Allergy Friendly Certification Program, as this could be developed and administered by the ASRC or a leading community-based advocacy organization ready to take full advantage of this opportunity to motivate large-scale change in the US advertising industry.

CONCLUSIONS AND RECOMMENDATIONS

Media consumers are increasingly bombarded by DAAs. These images set unattainable standards of beauty and damage the body image and well-being of many exposed to them, especially vulnerable youth, leading to the development of eating disorders and associated poor health outcomes. Warning labels on DAAs, while intuitive, are not an effective or recommended solution, as substantial research evidence shows they can worsen body image in vulnerable consumers.

FTC regulation would be the most comprehensive public health strategy for preventing exposure to DAAs and could be framed as holding companies accountable for their social effects more broadly and bundled with additional consumer protections to build public interest. It is also, however, the option that would take longest to implement, likely many years—during which time countless new eating disorders will develop, driven in part by DAA exposure.

To immediately reduce use of DAAs, two tactics are most promising: 1) The tax system, particularly awarding tax incentives or subsidies, could be a useful tool for lawmakers as they consider ways to reduce the use of DAAs while avoiding First Amendment issues; and 2) A voluntary certification program led by a national community-based advocacy organization could build interest and commitment in the business community, while also increasing the general public's awareness. This type of program could encourage advertisers to stop using DAAs because it will allow them to gain or maintain a competitive advantage.

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Strategic Training Initiative for the Prevention of Eating Disorders

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- 1. Erlanger S. Point, shoot, retouch and label. *The New York Times.* 2009.
- 2. Farid H. Seeing is not believing. *IEEE Spectrum.* 2009;46(8).
- Kee E, Farid H. A perceptual metric for photo retouching. *Proceedings of the National Academy of Sciences*. 2011;108(50):19907-19912.
- 4. Seigel J. The Lash Stand. 2012; https://www.adweek.com/digital/lash-stand-140785/.
- Becker CB, Plasencia M, Kilpela LS, Briggs M, Stewart T. Changing the course of comorbid eating disorders and depression: what is the role of public health interventions in targeting shared risk factors? *Journal of Eating Disorders*. 2014;2(1):15.
- Hausenblas HA, Campbell A, Menzel JE, Doughty J, Levine M, Thompson JK. Media effects of experimental presentation of the ideal physique on eating disorder symptoms: A meta-analysis of laboratory studies. *Clin. Psychol. Rev.* 2013;33(1):168-181.
- 7. Anderson M, Jiang J. *Teens, Social Media & Technology 2018* Pew Research Center; 2018.
- 8. Rideout VJ, Foehr UG, Roberts DF. GENERATION M2: Media in the Lives of 8- to 18-Year-Olds. The Henry J. Kaiser Family Foundation 2010.
- 9. Bucksch J, Sigmundova D, Hamrik Z, et al. International trends in adolescent screen-time behaviors from 2002 to 2010. *J. Adolesc. Health.* 2016;58(4):417-425.
- 10. Hoge E, Bickham D, Cantor J. Digital media, anxiety, and depression in children. *Pediatrics*. 2017;140(Supp 2):S76-S80.
- 11. Richards D, Caldwell PH, Go H. Impact of social media on the health of children and young people. *J. Paediatr. Child Health.* 2015;51(12):1152-1157.
- 12. American Medical Association. *Body Image and Advertising to Youth H-60.928.* American Medical Association: 2011.
- 13. McBride C, Costello N, Ambwani S, Wilhite B, Austin S. Digital manipulation of images of models' appearance in mass media: Strategies for action through law and corporate social responsibility incentives to protect public

- health. Am J Law Med. 2019;45(1):7-31.
- Bury B, Tiggemann M, Slater A. The effect of digital alteration disclaimer labels on social comparison and body image: Instructions and individual differences. *Body image*. 2016;17:136-142.
- 15. Frederick DA, Sandhu G, Scott T, Akbari Y. Reducing the negative effects of media exposure on body image: Testing the effectiveness of subvertising and disclaimer labels. *Body image*. 2016;17:171-174.
- Tiggemann M, Brown Z, Zaccardo M, Thomas N. "Warning: This image has been digitally altered": The effect of disclaimer labels added to fashion magazine shoots on women's body dissatisfaction. *Body image*. 2017;21:107-113.
- 17. Harrison K, Hefner V. Virtually perfect: Image retouching and adolescent body image. *Media Psychology*. 2014;17(2):134-153.
- 18. McLean SA, Paxton SJ, Wertheim EH. The role of media literacy in body dissatisfaction and disordered eating: A systematic review. *Body image.* 2016;19:9-23.
- Austin SB, Field AE, Wiecha J, Peterson KE, Gortmaker SL. The impact of a school-based obesity prevention trial on disordered weight control behaviors in early adolescent girls. *Arch. Pediatr. Adolesc. Med.* 2005;159:225-230.
- Suttle R. What Business Expenses Are Tax Deductible? 2018 http://smallbusiness.chron.com/business-expenses-tax-deductible-4175.html.
- 21. Zhang M. US Moves Toward Banning Photoshop in Cosmetic Ad Photographs. 2011; https://petapixel.com/2011/12/16/us-moves-toward-banning-photoshop-in-cosmetic-ad-photographs/.
- 22. U. S. Green Building Council. About USGBC. 2018 https://new.usgbc.org/about.
- 23. Asthma & Allergy Friendly. Asthma & Allergy Friendly Certification Program http://www.asthmaandallergyfriendly.com/.