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August 13, 2018

Mr. Mitchell Zeller
Director, Center for Tobacco Products
U.S. Food and Drug Administration
10903 New Hampshire Avenue
Silver Spring, MD 20993

Re: Social Media Marketing of iQOS in the United States by PMI

Dear Mr. Zeller:

By this letter, we seek to bring to the attention of the Food and Drug Administration (FDA) information about how Philip Morris International (PMI) is marketing its iQOS heated tobacco product on unrestricted social media platforms to U.S. consumers. This letter follows our previous letter of March 23, 2018 outlining how PMI has been marketing iQOS in foreign countries in ways that are entirely inconsistent with PMI's representations to FDA as to how it intends to market iQOS in the U.S.

This material bears directly on two PMI applications currently pending at FDA: (1) PMI's application for a marketing order (PMTA order) for iQOS under Section 910 of the Food, Drug and Cosmetic Act, as amended by the Family Smoking Prevention and Tobacco Control Act (Tobacco Control Act); and (2) PMI's application under Section 911 of the Tobacco Control Act to allow iQOS to be marketed as a modified risk tobacco product (MRTP). We ask that the material presented with this letter be considered by FDA in its evaluation of the PMI PMTA; we also have filed this letter and the supporting material in Docket No. FDA-2017-3001 concerning PMI's MRTP application for iQOS.

As explained below, PMI's marketing of iQOS on social media, seemingly targeted at the U.S. market, shows that PMI is using social media to market iQOS in the U.S. prior to its obtaining the required PMTA. Moreover, the evidence we have uncovered raises significant questions about the credibility of various public claims made by PMI and its affiliates to FDA in support of the iQOS applications.

Both Philip Morris, USA (the intended exclusive U.S. distributor of iQOS) and PMI have claimed that they intend to limit the domestic marketing of iQOS to adult smokers and to limit its reach to unintended audiences such as nonsmokers and youth.¹ We have documented that PMI, in direct contradiction of the claims made to FDA, is already engaged in a massive global marketing campaign for iQOS using foreign-based social influencers – *individuals with large followings who promote specific brands or products on social media platforms* – who have a huge number of U.S. followers and whose posts about iQOS are reaching millions of U.S. consumers on social media platforms such as Instagram, Facebook and Twitter. In fact, the top 10 influencers posting content about iQOS on Instagram alone reached 1.06 million Americans with each post between January 1, 2016 and March 1, 2018.²

The recent experience in the United States with Juul demonstrates the powerful impact this type of social media marketing can have in reaching youth and adolescents. Juul used images that are very similar to these images on social media platforms, many of which were documented in a recent article by Huang J, et al titled, “Vaping versus JUULing: how the extraordinary growth and marketing of JUUL transformed the US retail e-cigarette market”.³

In light of the evidence presented below, FDA should approve neither pending PMI application without a full investigation of PMI’s social media marketing activities to determine whether PMI is illegally engaged in marketing iQOS in the U.S. without a PMTA and whether the company’s social media marketing contradicts the company’s representations to FDA concerning its planned marketing of iQOS.

What is “influencer marketing”?

Advertisers may use “influencer marketing” as part of their broader social media and online marketing mix to promote brands. Influencers are individuals who have thousands or hundreds of thousands of social media followers who are paid or incentivized by advertisers to promote specific brands or products on Instagram, Facebook, Twitter or other social media platforms. A high profile influencer can be paid as little as \$250 per post on social media (0-50,000 followers) up to \$15,000+ per post (500,000-1,000,000 followers).⁴

The Federal Trade Commission (FTC) regulates influencer marketing practices to ensure that consumers are not deceived into believing that a paid social media post by an individual is organic content.⁵ Accordingly, relevant FTC Enforcement Guides require influencer marketing posts to disclose whether there is a substantial (“material”) or financial connection between an influencer and advertiser by including words like #Ad, #Sponsored, or # Promotion.⁶

The following examples show and describe various types of (non-tobacco product) influencers’ marketing posts from Instagram. These sample posts show content that highly-followed influencers have posted to promote brands like Kentucky Fried Chicken (KFC), VO5

Hairspray and Montblanc watches. Based on the presence of the hashtag #AD, the number of followers each influencer has and the composition of the photos, it can be determined that the following influencers were incentivized or paid to post the following content. **All of the influencers featured below have also posted content on their social media pages featuring iQOS.**



Figure 1. Instagram post from @benny_hancock, a UK social influencer with 31 percent of his audience based in the U.S. The photo shows a paid promotion for KFC products and features #AD to indicate the post was sponsored by KFC. This influencer has also posted images featuring #IQOS and #AD.



Figure 2. Instagram post from @benny_hancock featuring a paid post for VO5 hair products.



Figure 3. Instagram post from @marianodivaio, a Italian social influencer with 12 percent of his followers based in the U.S. The photo shows a paid promotion for Montblanc watches and features #AD to indicate the content was sponsored by Montblanc. This influencer has also posted content for #IQOS.



Figure 4. Instagram post from @marianodivaio featuring a paid post for @kronoshop – an Italian watch retailer.



Figure 5. Instagram post from @christina_ich, a Romanian social influencer with nine percent of her followers based in the U.S. The photo shows a paid promotion with mobile company @huaweimobiler. This influencer also posts content featuring #IQOS and #ad.

Social media and youth exposure to tobacco advertising

PMI’s social media marketing exposes young people to social media content promoting iQOS on platforms like Facebook, Instagram and Twitter. According to the Pew Internet Project, 92% of teens (ages 13-17 years) use the internet daily, and more than half (56%) go online several times a day. Smartphone access by 73% of teens helps to enable this frequent internet access. In addition, over three-quarters (76%) of teens report use of at least one social media platform.⁷ An additional study measuring social media platform usage among American youth found that 76 percent of teens and young adults (age 12-24) use Facebook and 73 percent (age 13-24) use Instagram.⁸

PMI’s decision to promote iQOS through social media is an extension of established tobacco industry marketing strategies that have promoted tobacco products to adolescents. A study based on data from the National Youth Tobacco Survey found that in 2012, 43 percent of middle and high school students were exposed to tobacco advertising on the internet, almost doubling the exposure level since 2000 (22.3%).⁹ Exposure to tobacco advertisements via the internet among high school students susceptible to smoking cigarettes increased 73 percent from 2000 to 2011, reaching 44.7% teens.¹⁰

Among youth aged 11-18 years, those who had been exposed to tobacco promotion on social media had more favorable attitudes towards tobacco, including a greater intention to initiate tobacco use among those who had not yet tried tobacco products.¹¹ In other words,

unsurprisingly, advertising tobacco products on social media works and it works particularly well with teens. A 2015 study assessing the role of social media in influencing tobacco-related behavior in young people found that exposure to tobacco content on social media predicts smoking tendency more accurately than does of exposure on television and movies.¹² Finally, a 2018 study evaluating brand-sponsored Facebook pages concluded that widespread tobacco promotion and sales were found despite Facebook’s tobacco-specific policies.¹³

Methodology of commissioned investigation of iQOS social media listening by the firm Grassriots.

The Campaign for Tobacco-Free Kids commissioned a social listening analysis to identify the social media promotion of iQOS around the world, and to assess the potential reach of this promotion in the U.S. market. The work was conducted by Toronto-based firm, Grassriots, an award-winning agency specializing in social change movements. Grassriots has expertise in various social media analytics and the tools used to collect this data.

To conduct this investigation, Grassriots used advanced social media analytics and intelligence platforms functionalities to perform hashtag and user handle searches. These platforms included Crimson Hexagon,¹⁴ Klear,¹⁵ and Lefty.¹⁶

Following the analysis of the content presented on these platforms, Grassriots was able to identify the “top influencers” engaged in the iQOS conversation on social media during a specific two-year time period. For this study, a “top influencer” was defined as having over 50,000 followers, having at minimum a 0.5% engagement rate (calculated as number of average post engagements divided by number of followers), and having mentioned iQOS or used one of the iQOS branded hashtags¹⁷ at least once in their Instagram posting history. The following sections describe the posts of these influencers.

PMI’s influencer marketing promoting iQOS on Instagram and Twitter¹⁸

As recognized by PMI in a 2016 internal social media guide to promote iQOS, the importance of the use of hashtags (#) to reach consumers in an influencer marketing campaign is key to its success, “*Hashtags are gateways to being part of online conversations.*”¹⁹

Accordingly, top influencers posting hashtags on Instagram related to iQOS were identified and their social media reach – including the total audience in the United States - was determined.

Top hashtags associated with iQOS

The table below identifies the most popular hashtags associated with iQOS on social media between January 1st, 2016 and March 1st, 2018 that were then used to identify the top influencers posting about this content.

Overview of iQOS conversation on Instagram and Twitter

Hashtag	Number in a 10,000 Post Sample
#iqos	9337
#thischangeseverything	817
#iqosteam	799
#heets	749
#philipmorris	738
#marlboro	725
#love	699
#iqosfriends	664
#instagood	650
#iqosfamily	558
#iqoslovers	541
#fashion	531
#photooftheday	522
#vape	485
#heatnotburn	483
#followme	463
#picoftheday	461
#iqosclub	426
#friends	412

According to the Grassriots report commissioned by Campaign for Tobacco-Free Kids, the iQOS conversation on social media is large, highly engaged and growing rapidly. There was an 11 percent increase in post volume during the first three months of 2018 alone.

- Between January 1st, 2016 and March 1st, 2018, there were 18,360 posts uploaded to Instagram referencing iQOS or using iQOS branded hashtags.
- Between January 1st, 2016 and March 1st, 2018, the iQOS conversation had over 1.3 billion potential views (impressions) on Twitter.

Top ten influencers (50,000 or more followers) posting content on iQOS

From the most popular hashtags identified above, top 10 influencers posting content on iQOS were identified in the chart below. **Each of the 10 influencers have a significant online following in the United States, ranging from 8-32% of followers based in the United States.**

Influencer	Reach	Average Likes/Post	Posts Mentioning of IQOS	Percentage of the Audience in the US	Potential Reach in the US
@marianodivaio	6,300,000	136,900	1	12%	756,000
@christina_ich	382,000	15,400	1	9%	34,380
@alisaueno	295,000	5,050	1	18%	53,100
@raluca.badulescu	257,000	4,490	3	10%	25,700
@hugotaylorlondon	233,000	3,200	1	10%	23,300
@doinitaoancea	189,000	2,080	1	11%	20,790
@derfaber	186,000	2,540	2	32%	59,520
@benny_hancock	184,000	7,510	1	31%	57,040
@dasha.german	155,000	7,790	1	23%	35,650
@martamumany	141,000	7,790	2	8%	11,280
AGGREGATE	8,322,000	192,750	14	13%	1,076,760

While social media posts do not originate in the United States, iQOS influencers reach large numbers of users in the US, with the top 10 influencers reaching a potential 1.06 million Americans alone per post.



Figure 8. Instagram post from @christina_ich (429k followers, nine percent in the US) that uses the hashtags #iqos and #ad.



Figure 9. Instagram post from @alisueno (314k followers, 18 percent in the U.S.) that uses #PR and #iqos.

Media coverage in the United Kingdom on the potential illegal advertising of iQOS specifically mentioned social media posts by UK influencer Benny Hancock (@benny_hancock). According to the news story, Benny Hancock posted several images featuring #iqos and #ad,

which accounts for his appearance in the top 10 influencer chart above compiled by Grassriots. Following the news coverage on this issue in the UK, the photos noted were deleted and Benny Hancock has denied that they were paid advertisements.²¹

Additional influencers (40,000 or more followers) posting content on iQOS disclosing financial relationships to PMI

Grassriots also identified top influencers having over 40,000 followers and mentioning or using an iQOS branded hashtags in combination with a hashtag indicating a business partnership with PMI or IQOS.²² Similar to the top ten influencers, these influencers are reaching thousands of Americans, allowing PMI to effectively penetrating the US market with paid advertising before its application has been approved.

Images below the chart include examples of this content from Instagram. Although some of the influencers have included hashtags or content indicating that iQOS is only for adult smokers (e.g., #foradultsmokers), this is clearly not an adequate disclosure for several reasons. First, audiences viewing this content are not limited to adult smokers, thus PMI’s advertising is very likely to reach social media users as young as 13 years and young people who are non-smokers. Second, not all posts identified in this research contain this type of disclosure, Further, hashtags like “not risk free” are not adequate to warn viewers of the health risks associated with a product and fall far short even of the warnings PMI and Altria themselves propose in their applications.

Influencer	Followers	Average Likes/Post	Hashtags Claiming Business Relationship	Percentage of the Audience in the US	Potential Reach in the US
@oliviafaeh	62,100	3,645	#iqosambassador #sponsoredbyiqos #ad	13%	8,073
@adrianpov	140,000	14,966	#ad #iqosrevolution #iqos	6%	8,400
@nefeligeorgala	111,499	95,889	#iqosambassador #iqos	11%	12,264
@eusuntoanaradu	49,700	546	#iqoslover #ad #iqosruby #trustiniqos	8%	3,976
@miguelcarrizo	41,900	854	iqos #rompebarreras #foradultsmokers #ad	11%	4,609
@mirelabucovic	45,600	487	#iqos #ad	9%	4,104
@teresa_bass	162,000	6,139	#ad #rompebarreras #foradultsmokers	5%	8,100



Figure 10. Instagram post from @oliviafaeh (62k followers, 13 percent in the U.S.) featuring several hashtags indicated the post was sponsored content for Iqos.



Figure 11. Instagram post from @adrianpov (140k followers, six percent in the U.S.) that includes #iqos and #ad



Figure 14. Instagram post from @nefeligeorgala (112K followers, 11 percent in the U.S.) using #iqos and indicating that she is an ambassador for IQOS.

Additional connections with social media advertising and PMI

Furthermore, in several instances, social media users are tagging content to several Instagram accounts that appear to be run by PMI. This includes @qreator_by_Iqos in Romania and @iqos_friends in Italy. @qreator_by_iqos leads to a website that is run by PMI. @iqos_friends Italy appears to be an Italian social media account run by individuals associated with PMI.

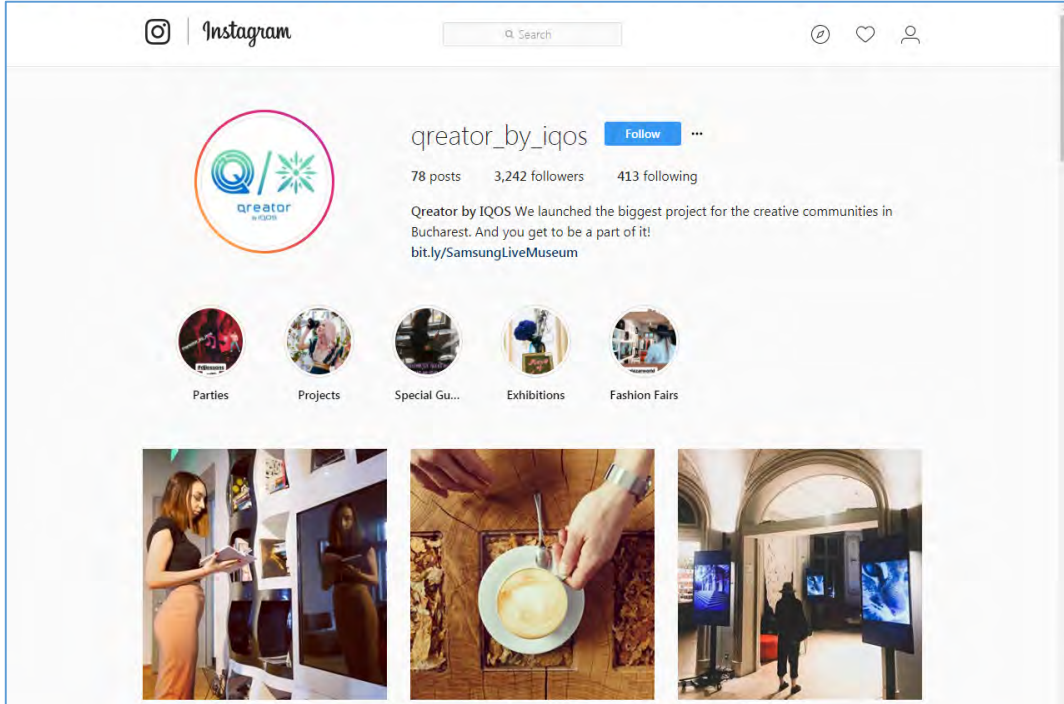


Figure 15. Screenshot of the instagram account Qreators by Iqos, which links to a website run by PMI in Romania.

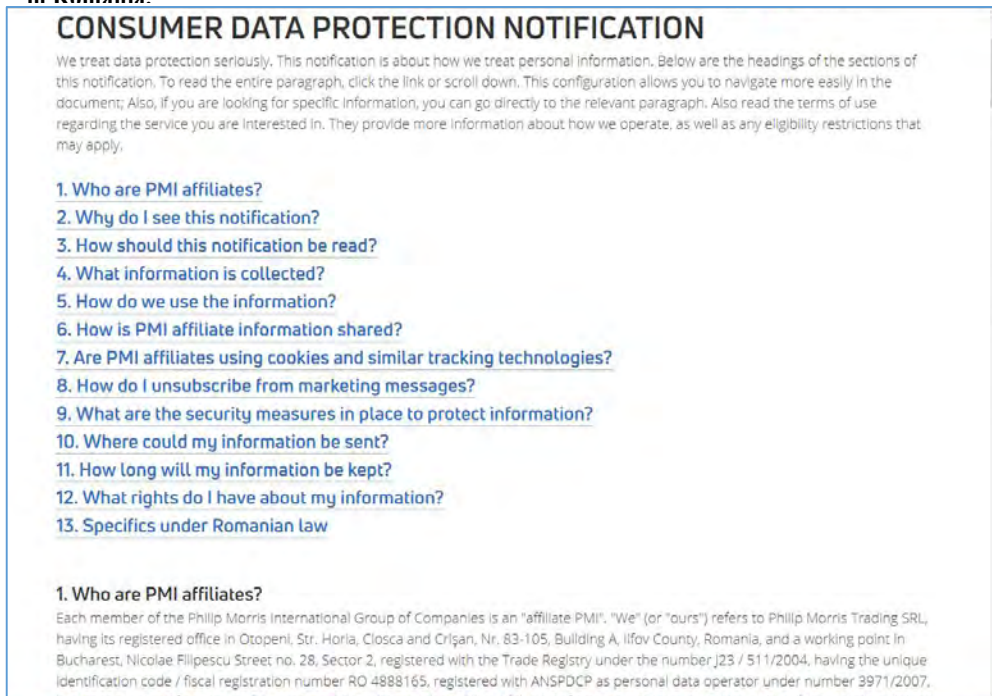


Figure 16. Screenshot of qreators.ro, the website featured in @qreator_by_iqos instagram bio. The notice above outlines that the website content belongs to PMI.

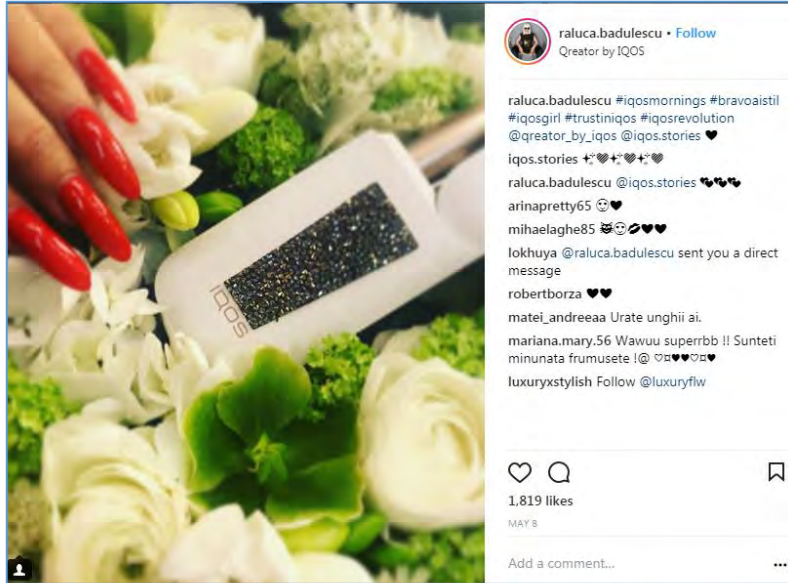


Figure 17. Instagram post from @raluca.badulescu (272k followers 10 percent in the US) using the hashtag #iqos and tagging Qreator_by_iqos, an account run by PMI.



Figure 18. Instagram posts from @raluca.badulescu (272k followers 10 percent in the US) using the hashtag #iqos and tagging Qreator_by_iqos, an account run by PMI.

In addition to the social influencers identified by Grassriots detailed above, the Campaign for Tobacco-Free Kids has identified several more social influencers with significant U.S. followings who are posting content using iQOS hashtags on social media. Based on the use of the hashtag #ad, this content has also been identified as paid social media promotion by PMI.



Figure 19. Instagram post from @eusuntoanaradu (50k followers, nine percent in US) that uses the hashtags #iqos and #ad.



Figure 20. Instagram post from @eusuntoanaradu (50k followers, nine percent in US) that uses the hashtags #iqos and #ad.



Figure 21. Instagram post from @maurice_munteanu (156k followers, eight percent in US) that features the hashtags #iqos and #ad.

PMI's influencer marketing promoting iQOS on Facebook

While the same social listening data available for posts originating on Instagram and Twitter is not available for content posted to Facebook, research by Tobacco-Free Kids indicates that paid posts for iQOS are also present on Facebook and accessible in the United States. **The following images are a sample of posts collected from Washington, D.C. that feature content using #iqos and #ad or #iqosambassador.**

#iqos #ad

All **Posts** People Photos Videos Pages Places Groups Apps

Filter Results

TAGGED LOCATION

- Anywhere
- Washington, District of Columbia
- Westchester, New York
- Choose a Location...

DATE POSTED

- Anytime
- 2018
- 2017
- 2016
- Choose a Date...

Mihai Morar is at **Calea Victoriei**.
April 2 · Bucharest, Romania · 🌐 Like Page

Din inima Bucureștiului, cu dragoste ❤️ MM
#caleavictoriei #bucharest #iqosrevolution #ad #iqos #instaromania
[See Translation](#)



👍❤️👏 2.1K 31 Comments 10 Shares

Like Comment Share

#iqos #ad

All **Posts** People Photos Videos Pages Places Groups Apps

Like Comment Share


Filter Results

TAGGED LOCATION


- Anywhere
- Washington, District of Columbia
- Westchester, New York
- Choose a Location...




DATE POSTED




- Anytime
- 2018
- 2017
- 2016
- Choose a Date...

Mihai Morar  May 2 · 🌐 Like Page ⋮

Lasă graba, simte iarba.
#slowlife #iqosrevolution #ad #iqos
[See Translation](#)



   2.2K 10 Comments 16 Shares

 Like  Comment  Share

#iqos #ad

All **Posts** People Photos Videos Pages Places Groups Apps

Filter Results


TAGGED LOCATION

- Anywhere
- Washington, District of Columbia
- Westchester, New York
- Choose a Location...


DATE POSTED

- Anytime
- 2018
- 2017
- 2016
- Choose a Date...




Like Comment Share

Chef Florin Dumitrescu  April 27 · Instagram · 🌐 Like Page ...

Acum nici că le mai încurcăm! Poți să îți personalizezi și tu IQOS-ul la Qreator 😊
#FD #chefflorindumitrescu #iqosrevolution #ad #ilikemydevice #iqos #putyoursignature
See Translation



▶ 0:04 🔊 ⚙️ ↗️

   187 43 Comments 3 Shares 25K Views

Like Comment Share

#iqos #ad

All **Posts** People Photos Videos Pages Places Groups Apps


Filter Results


TAGGED LOCATION

- Anywhere
- Washington, District of Columbia
- Westchester, New York
- Choose a Location...

DATE POSTED


- Anytime
- 2018
- 2017
- 2016
- Choose a Date...




Speak  Like Page ...

May 2 · 

Cea mai frumoasa culoare! 😊 Qreator by IQOS #iqos #iqosrevolution #ad #ruby #limitededition #custommade

[See Translation](#)



   304

1 Comment 2 Shares

#iqos #ad

All **Posts** People Photos Videos Pages Places Groups Apps

Like Comment Share

Filter Results

TAGGED LOCATION

- Anywhere
- Washington, District of Columbia
- Westchester, New York
- Choose a Location...

DATE POSTED

- Anytime
- 2018
- 2017
- 2016
- Choose a Date...

Speak  **Like Page** 

May 23 at 3:46pm · Instagram · 

Adauga putina lumina si vei avea o viziune mult mai clara! #iqosrevolution #nighttime #iqos #nightshift #ad #emojitrend #custommade #iqosruby

See Translation



  47 1 Comment

Like Comment Share

#iqos #ad

All **Posts** People Photos Videos Pages Places Groups Apps

Filter Results

TAGGED LOCATION

- Anywhere
- Washington, District of Columbia
- Westchester, New York
- Choose a Location...

DATE POSTED

- Anytime
- 2018
- 2017
- 2016
- Choose a Date...

Ana Morodan is with Laura Lazar.
September 8, 2017 · 🌐

Lampile de sare, cele mai eficiente device-uri pentru ionizarea aerului. And no radiatii at all. Desigur ca toti de la #TheMoffice ma fac ultima baba dar ghici ce? Dimineata, cand ajung la munca, le aprind si ei. 😊 Si apropo, my #IQOS changes with me. #iqos #thischangeeverything #ad

Laura Lazar dress / Smiling Shoes

Salt Lamps, the most efficient devices for air ionization. And no radiation at all. Of course everyone from #themoffice makes me last baba but guess what? In the morning, when I get to work, I light them too. 😊 and by the way, my #iqos changes with me. #iqos #thischangeeverything #ad

Laura Lazar dress / Smiling Shoes
⚙ Rate this translation



43

#iqos #ad

All **Posts** People Photos Videos Pages Places Groups Apps

Filter Results

TAGGED LOCATION

- Anywhere
- Washington, District of Columbia
- Westchester, New York
- Choose a Location...

DATE POSTED

- Anytime
- 2018
- 2017
- 2016
- Choose a Date...

Octavian Palade April 25 · 🌐

My #IQOS and I got matching CryBaby tattoos 😁 și dacă ești utilizator de IQOS, poți merge și tu la Qreator by IQOS să ți-I gravezi gratuit, cu orice imagine vrei tu.

#IQOSrevolution #ad

See Translation



46 1 Comment

Like Comment Share



Simona Krainová (official)

March 26 · 🌐

👍 Like Page



🏠 🌞 ❤️ #iqosambassador



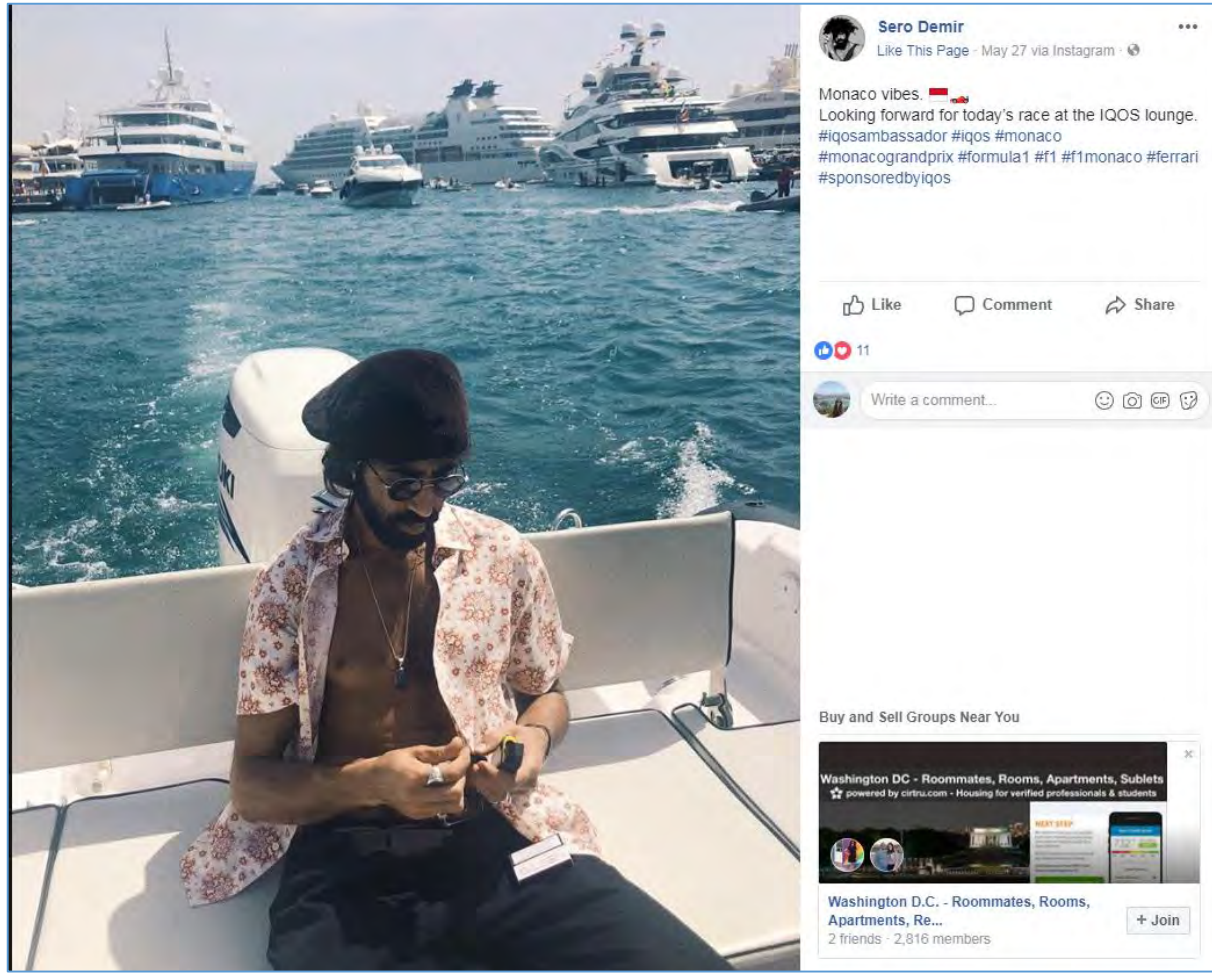
👍❤️😱 619

22 Comments 5 Shares

👍 Like

💬 Comment

➦ Share



PMI has failed to limit its reach of “unintended audiences and youth” in the U.S., despite having the ability to do so

The evidence set out in this letter demonstrates that PMI is intentionally using influencers to post paid iQOS content on social media platforms and without using the available mechanisms to restrict access to adults only. If PMI – as an extraordinarily sophisticated advertiser – did not intend to reach young U.S. consumers with its global online influencer marketing, it would have taken steps to limit penetration of its advertising into the U.S. market. Rather, it launched a campaign directed at teenagers in the United States.

First, PMI chose to use high profile social media influencers with a considerable U.S. reach to market iQOS on social media. PMI – like any advertiser – has the capability to readily study the social media analytics of each and every influencer prior to paying that influencer to post social media content, such as how many followers an influencer has and where those

followers are geographically located. Despite the fact that iQOS is not yet approved for legal sale in the United States, PMI chose influencers with a strong U.S. following.

Second, PMI also has the capability to use geographic restrictions and age restrictions available on Facebook to limit its iQOS influencer marketing content to specific locations via social media features designed to do just that. For example, PMI's verified iQOS account, based in Japan, is a private account that claims to only be open to smokers over the age of 20.

Third, PMI could monitor its global influencer marketing by using social listening tools, such as Crimson Hexagon and Klear (as we did) to ensure that its influencer marketing is not substantially reaching "unintended audiences" such as social media users in the U.S.

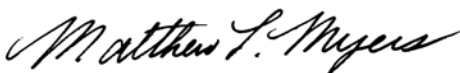
Instead of taking steps to ensure that content is only available to adult smokers PMI is paying for unrestricted content to be posted on social advertising mediums that allow children and teenagers aged 13 and older to have accounts, follow influencers and hashtags, etc.

Influencers, by their very nature, are effective messengers for the products they promote because of their online popularity and social influence over their peers and others who look up to them, thereby becoming attractive role models among their networks, followers and others exposed to their social media posts. Young adult influencers are more likely to be attractive to teenagers. According to a NIC Monograph regarding the role of media in promoting tobacco use, aspirational images and traits of young adults – such as attractiveness, maturity, affluence and popularity – are the most influential to youthful audiences.²³

Conclusion

The evidence disclosed in this letter shows that PMI has been using sophisticated social media marketing to reach U.S. consumers, including youthful consumers, prior to its receipt of a marketing order from FDA. Given the far-reaching public health implications of PMI's PMTA and MRTP applications and the representations made to FDA in support of those applications, neither application should be granted until FDA fully investigates this social media marketing to determine if PMI has violated federal law and whether it has actively misled FDA in its iQOS applications.

Respectfully submitted,



Matthew L. Myers
President

¹ At the January 24-25 meeting of FDA’s Tobacco Product Scientific Advisory Committee (TPSAC) to consider PMI’s MRTP application for IQOS, Ms. Knakmuhs of Philip Morris USA told TPSAC in describing the “challenge” of selling IQOS in the U.S.: “On one hand, we’re committed to maximizing our reach to adult smokers and supporting them so they can switch completely to IQOS. On the other hand, we want to limit our reach to unintended audiences such as nonsmokers and youth.” Ms. Knakmuhs then proceeded to explain Philip Morris’s plans to use print and digital advertisements “only in publications with predominantly adult readership” and to use direct mail and e-mail to reach only adult smokers “by identifying them from our adult tobacco consumer database, which we have built over many years.”

² Report prepared for the Campaign for Tobacco-Free Kids by Grassriots. IQOS Social Listening Report. March 2018.

³ Huang J, Duan Z, Kwok J, *et al.* Vaping versus JUULing: how the extraordinary growth and marketing of JUUL transformed the US retail e-cigarette market. *Tobacco Control*. Published Online First: 31 May 2018. doi: 10.1136/tobaccocontrol-2018-054382

⁴ Report prepared for the Campaign for Tobacco-Free Kids by Grassriots. IQOS Social Listening Report. March 2018 (citing Industry pricing chart for purchasing a product-post from an Instagram Influencer from The Influence Agency.)

⁵ Federal Trade Commission 16 C.F.R Part 255.5, Guides Concerning the Use of Endorsements and Testimonials in Advertising. Available at: <https://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-publishes-final-guides-governing-endorsements-testimonials/091005revisedendorsementguides.pdf>.

⁶ The FTC’s Endorsement Guides: What People are Asking. September 2017. Available at: <https://www.ftc.gov/tips-advice/business-center/guidance/ftcs-endorsement-guides-what-people-are-asking> (WHAT ARE AN ADVERTISER'S RESPONSIBILITIES FOR WHAT OTHERS SAY IN SOCIAL MEDIA?)

⁷ Lenhart, A, et al., Teens, Social Media & Technology Overview 2015: Smartphones facilitate shifts in communication landscape for teens, April 9, 2015, Available at: http://www.pewinternet.org/files/2015/04/PI_TeensandTech_Update2015_0409151.pdf.

⁸ Statistica. Feb 2017. Available at: <https://www.statista.com/statistics/199242/social-media-and-networking-sites-used-by-us-teenagers/>.

⁹ Agaku, Israel T., Brian A. King, and Shanta R. Dube. "Trends in exposure to pro-tobacco advertisements over the Internet, in newspapers/magazines, and at retail stores among US middle and high school students, 2000–2012." *Preventive Medicine* 58 (2014): 45-52.

¹⁰ Dube, Shanta R., et al. "Pro-tobacco influences and susceptibility to smoking cigarettes among middle and high school students—United States, 2011." *Journal of Adolescent Health* 52.5 (2013): S45-S51.

¹¹ Cavazos-Rehg PA, Krauss MJ, Spitznagel EL, et al. Hazards of new media: youth's exposure to tobacco Ads/promotions. *Nicotine Tob Res* 2014;16:437–44.

¹² Depue JB, Southwell BG, Betzner AE, et al. Encoded exposure to tobacco use in social media predicts subsequent smoking behavior. *Am J Health Promotion* 2015;29:259–61.

¹³ Jackler RK, Li VY, Cardiff RAL, et al. *Tob Control*. Epub ahead of print: April 5, 2018. doi:10.1136/tobaccocontrol-2017-054175.

¹⁴ Crimson Hexagon is a social media analytics platform with a data library of over one trillion posts, including documents and images from social networks such as Instagram, Twitter, and Facebook. It was initially developed in 2007 at Harvard University's Institute for Quantitative Social Science. To determine social media influencers, Grassriots used Boolean search logic to create a Crimson Hexagon 'monitor' of the iQOS conversation. Using a data library of over one trillion posts, including documents and images from social networks such as Instagram, Twitter, and Facebook, Grassriots pulled the top English-language influencers for each monitor. As Crimson Hexagon's influencer analysis is limited to Twitter, Grassriots then cross-referenced these handles within the Lefty Platform.

¹⁵ Klear is an influencer marketing software that analyses social media influencer profiles to determine their True Reach, Engagement Score, and Influence. The Klear platform uses machine learning to predict the amount of actual views and engagements an influencer gets per post, and scores them on an engagement-reach matrix to determine their influence. Once the final list of handles had been determined using Crimson Hexagon and Lefty, Grassriots used Klear to map out individual profiles.

¹⁶ Lefty is an influencer marketing software with a database of 5 million social media influencer profiles on multiple platforms, including Instagram, Facebook, Twitter, and others. Once we determined top influencers from each of the hashtags in Crimson Hexagon, Grassriots inputted these handles into Lefty to find their corresponding Instagram profile. If none was available, as was the case for several, Grassriots used Boolean search logic within Lefty to find top influencers with both a significant number of followers (50,000+), and a significant engagement (0.5% engagement rate per post).

¹⁷ ("iqos" OR "#iqos" OR "#iqoshungary" OR "#iqosmoscow" OR "#iqoslover" OR "#iqosteam" OR "#myiqos" OR "#heatnotburn" OR "#iqosempire" OR "#iqosdubai" OR "#iqos_dubai" OR "#iqosfamily" OR "#iqosembassy" OR "#iqosserbia" OR "#lovemyiqos" OR "#iqosstore" OR "#iqosexperience" OR "#iqos_italia" OR "#iqosfriends" OR "#iqosstyle" OR "#iqoslimitededition" OR "#iqoslif" OR "#iqosindonesia" OR "#iqosrussia" OR "#iqoslovers" OR "#iqossouthafrica" OR "#iqospaceodessa" OR "#iqosheatstick" OR "#iqosguys" OR "#iqosgirls" OR "#iqos24plus" OR "#iqosnews" OR "#iqospace" OR "#iqosman" OR "#upgradeyouriqos" OR "#iqosworld" OR "#iqosphere" OR "#iqosbluetooth" OR "#iqosguy" OR "#iqosgirl" OR "#iqosbulgaria" OR "#iqosphilippines" OR "#iqosrevolution" OR "#iqosmalaysia")

¹⁸ Given that Instagram is the main channel for influencer marketing, this investigation focused exclusively on influencers and trends on Instagram from January 1st, 2016 to March 1st, 2018.

¹⁹ Reuters. P Bansal, T Lasseter, D Wilson, T Wilson, A Miyazaki, A Kalra. December 21, 2017. The Philip Morris Files. How Philip Morris is selling regulators on its hot new smoking device. Available at: <https://www.reuters.com/investigates/special-report/tobacco-iqos-marketing/> (See Page 37, Iqos Brand Voice Guidelines. Available at: <https://www.documentcloud.org/documents/4331963-IQOS-Brand-Voice-Guidelines.html>.)

²⁰ Unless an influencer publicly discloses that she or he is being paid to promote a product with using #ad or similar in a social media post, there is no way to tell if any influencer identified has been hired by PMI or its agents. Their significant reach and engagement, however, indicates that they do engage in paid influencer marketing for brands. Indeed, evidence from the identified top ten influencer accounts shows that several influencers have disclosed that their posts have been sponsored by companies and brands such as KFC, Montblanc and iQOS.

²¹ <https://www.pressreader.com/uk/the-daily-telegraph/20180421/281809989495489>

²² These terms include: “ad” OR “#ad” OR “iqosambassador” OR “partner” OR “partners” OR “advertising” OR “sponsor” OR “sponsored” OR “sponsoredbyiqos” OR “ambassador” OR “advertising” OR “paidpartnershipwithiqos.

²³ National Cancer Institute. *The Role of the Media in Promoting and Reducing Tobacco Use*. Tobacco Control Monograph No. 19. Chapter 5. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute. NIH Pub. No. 07-6242, June 2008. Available at: https://cancercontrol.cancer.gov/brp/tcrb/monographs/19/m19_complete.pdf.