

# **Rapid Growth of JUUL Hashtags After the Company Ceased Social Media Promotion**

Stanford Research into the Impact of Tobacco Advertising  
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**ABSTRACT:**

**Background:** The e-cigarette brand JUUL halted its promotional social media postings on November 13, 2018 as part of its “commitment to youth prevention.”

**Objective:** To examine the popularity of hashtags containing the JUUL trademark (eg. #juul) before and after the company ended its social media marketing.

**Methods:** Post counts of Instagram hashtags containing the JUUL brand name were sampled periodically before and after JUUL ended its social media promotions. A sample of 1000 social media posts were analyzed to determine the fraction depicting either JUUL products or its competitors. Keyhole® was used to determine the engagement of #juul posts across social media networks.

**Results:** Over the 3 years and 5 months between the introduction of #juul simultaneous to JUUL’s launch party (June 4, 2015) and the company’s ceasing of

social media marketing (November 13, 2018) over a quarter of a million posts appeared. In the 8 months since the company halted its promotional postings, the rate of community posting accelerated markedly resulting in the number of posts doubling to over half a million. Social media engagement (via Keyhole®) was 94x greater than the post count with passive viewership likely much higher. Among #juul posts, 15.4% showed JUUL products, 28.1% JUUL competitors, and 3.7% products from both JUUL and its competitors. Reflecting the popularity of #juul as a gathering place for its largely youthful audience, non-vaping related posts made up the remaining 52.8%

**Policy Implications:** As social media has been a potent accelerant of youth interest in JUUL, shutting down heavily trafficked loci is a priority. There are two potential pathways to end hashtag-based promotion of JUUL. An action could be initiated by Instagram based upon mitigating community harm or by JUUL based upon infringement of its trademark.

## INTRODUCTION

During 2018, the marketing practices of JUUL came under increasing scrutiny with an outpouring of adverse media attention, pressure from parent groups, investigation by regulators and legislators, and a spate of class action lawsuits. In response, on June 14, 2018 JUUL deleted a sizable volume of its social media postings announcing: *“JUUL Labs has a dedicated internal team focused on reporting inappropriate content to social media companies and has partnered with several of these companies to proactively remove posts, pages, and unauthorized offers to sell product targeted at underage users.”*<sup>1</sup> On November 13, 2018, one month after the FDA seized documents at JUUL’s San Francisco headquarters, CEO Ken Burns announced a cessation of all social media marketing by the company: *“... we understand that many young people get their information from social media. To remove ourselves entirely from participation in the social conversation, we have decided to shut down our U.S.-based social media accounts on Facebook and Instagram.”*<sup>2</sup> The announcement from JUUL’s CEO encompassed not only the company’s own marketing, but also posts by community members: *“User-generated social media posts involving JUUL products or our brand are proliferating across platforms and must be swiftly addressed. There is no question that this user-generated social media content is linked to the appeal of vaping to underage users. This is why we have worked directly with social media platforms to remove tens of thousands of inappropriate posts.”*<sup>2</sup> Seven months later, in a public relations announcement titled *“Our commitment to youth prevention”* JUUL proclaimed its ongoing effort: *“We exited our U.S.-based Facebook and Instagram accounts, and we are continuously working to remove inappropriate third-party social media content in partnership with major social media companies.”*<sup>3</sup>

JUUL’s success in the marketplace has been driven by viral peer-to-peer promotion of its product among youth, primarily via social media platforms.<sup>4</sup> While JUUL has halted its own posting, community postings to Instagram hashtags containing the JUUL brand name continue to appear. Hashtags are popular

among marketers as they are an effective means to reach target audiences and have been used extensively by tobacco marketers.<sup>5-8</sup> The purpose of this study is to examine the popularity of #juul and other hashtags containing the JUUL trademark before and after the company’s cessation of promotion via social media.

## METHODS

Our research group (SRITA) has been collecting JUUL promotional material since its introduction to the market in June 2015. The date of initial appearance of #juul was determined from the SRITA collection of JUUL Labs tweets. We have been tracking the growth in post counts for #juul and other hashtags containing the JUUL trademark for the past year. Post count is a conservative metric of social media exposures that significantly underestimates total interactions. Many in the Instagram social network only view the content of hashtags without posting to them. Keyhole® social media monitoring platform was used to determine the engagement of #juul posts across social media networks.<sup>9</sup> Keyhole® measures engagement across social media platforms by compiling users likes, dislikes, comments, and shares. To determine the frequency of post types, 1000 consecutive posts were collected over July 8-9, 2019.

## RESULTS

The first use of #juul was posted by JUUL Vapor on June 4, 2015 in a series of 13 tweets depicting attendees at the product’s launch party carrying titles such as *“dance like everybody’s watching”* and *“vape game is strong.”*<sup>10</sup> (Figure 1) Over the 3 years and 5 months between the introduction of #juul (June 4, 2015) and the company’s ceasing social media marketing (November 13, 2018) over a quarter of a million posts using the hashtag appeared on Instagram. In the 8 months since the company ceased its own promotional postings, the rate of community posting accelerated markedly resulting in the number of posts doubling to over half

a million. (Table 1, Figure 2) The activity of #juul before JUUL ceased social media promotion averaged 315 posts per day whereas after it tripled to 1084 posts per day.

Review of 1000 #juul posts showed that brand name JUUL products appeared in 154, its competitors vaping/smoking products appeared in 281, and both JUUL and a competitor's products in 37. Slightly over half of posts (528) were unrelated to vaping. Numerous examples of youth oriented posts and those of JUUL competitors were identified. (Figures 3-9).

Using a social media real time tracker (Keyhole®) over a 7 day period in mid-July 2019, a set of 7442 posts to #juul yielded an engagement of 706,267 (eg. likes and comments). Keyhole engagement metrics spanned Instagram, Facebook, and Twitter. Memes were the most common posts to receive interaction. The volume of engagement for #juul posts indicates that this active participation amplified exposure by a factor of 95:1. The number of passive viewers on #juul were likely much greater than those who chose to be actively engaged.

## DISCUSSION

In 2019, Instagram is the favorite social network for 35% of US teens, exceeded in popularity only by Snapchat at 41%.<sup>11</sup> A 2018 survey found that 72% of American teens use Instagram while only 32% used Twitter.<sup>12</sup> The content of Instagram hashtags bearing JUUL's brand name skew strongly towards youth. In a study of 14,838 JUUL posts by 5,201 unique users for JUUL's Instagram account in the first half of 2018, 55% were found to have youth-oriented content.<sup>13</sup> Other studies have found a similarly strong presence of youth-oriented content on #juul.<sup>4</sup> It is noteworthy that JUUL's primary marketing theme since fall 2018 has been "Switch to JUUL" which the company professes is designed to promote adult smoker transition to its product. However, its hashtag (#switchtojuul) receives minimal social media attention (1,393 posts) only a minuscule fraction of #juul. A study of JUUL's twitter account, a platform skewed more toward adult users, found that 45% of

followers were teens ages 13 to 17 and that a majority of followers were likely below the legal age of purchase.<sup>14</sup> Given the demographics of Instagram users, and the predominance of youth oriented content of JUUL-themed hashtags, it seems probable that underage exposure via this social media outlet may be even greater.

While Instagram and Facebook have long prohibited paid tobacco promotion, unpaid organic advertising flourishes.<sup>15</sup> As seen in this study of JUUL, even when a brand shuts down its own social media account, hashtags bearing its brand name may persist. In the 3.3 years before JUUL halted its promotional social media posting, #juul had accumulated about a quarter of a million posts. In the 7 months since the cessation, the average number of daily posts tripled with the result that posts grew rapidly to over half a million.

As many viewers of #juul do not actively post, and its postings are often exported across multiple social media channels, the number of exposures is much greater than the number of posts. Analysis of #juul via Keyhole® indicates that posts were amplified via engagement to interact 95x more exposures than the post count alone would indicate. The number of passive viewers, which we unable to document, is no doubt much higher. In mid-July 2019 a weeks post count to #juul were 7442 and active engagement 706,267. Passive viewership is no doubt much higher possibly touching several million viewers. Keep in mind, these data reflect` a single week.

JUUL's public relations announcements have repeatedly expressed the company's concern about underage youth use of its products and its commitment to work to curtail underage use. The acceleration of activity on JUUL Instagram hashtags following the closure of JUUL's own social media accounts is of obvious concern. The hashtags promote JUUL to a youthful audience and glorify vaping culture. Instagram is popular globally and it readily disseminates American youth culture. This phenomenon especially relevant as JUUL is rapidly expanding its market outside throughout Europe and Asia.

## PATHWAYS TO ELIMINATE JUUL THEMED HASHTAGS:

### Instagram blocking of hashtags

There are two possible pathways to halting hashtag-based promotions of JUUL: an action initiated by Instagram based upon community harm and a JUUL-initiated request based upon trademark infringement. Instagram frequently removes hashtags. As of late 2018, online reports cited that there were over 114,000 banned Instagram hashtags, a figure the authors were unable to independently verify.<sup>16,17</sup> While many banned hashtags involve sexual references, ethnic or gay slurs, fat shaming, or suggestions of self-injury a surprising number are common words or phrases.<sup>18</sup> Banned hashtags include well-known brand names such as #skype and #xanax as well as holidays (#easter, #valentinesday, #new years), places (#asia, #kansas, and #qatar), and numerous common words such as #woman, #teen, #petite, #popular, #thought, #like. Instagram may have blacklisted ordinary words when they became overrun with spam or potentially harmful content.

### Trademark Infringement

Instagram describes the three elements required for a trademark infringement: *"1. A person uses a trademark owner's trademark (or similar trademark) without permission, 2. That person's use is in commerce, meaning that it's done in connection with the sale or promotion of goods or services and 3. That use is likely to confuse consumers about the source, endorsement or affiliation of the person's goods or services."*<sup>19</sup> Instagram emphasizes the context of trademark use in considering whether or not infringement exists. *"While there may be cases where this type of use can be reported for trademark infringement based on the context of its use, please note that not every use of your trademark in a username is necessarily a trademark infringement. The same word used in a different context may not violate your trademark."*<sup>20</sup> This specification implies that "Juul" may be permissible in a hashtag in contexts

unrelated to vaping, such as when the word refers to the Dutch last name of the same spelling.

Given JUUL's high profile commitment to ending social media promotion of its products, it seems unlikely that JUUL would want to be seen as giving its permission to hashtags to use its trademarked brand name. Although the company no longer directly promotes its products via social media, including via JUUL hashtags, its devices and pods are offered for sale by online vaping stores and vape shops. Importantly, JUUL's competitors are heavily using JUUL branded hashtags to market its devices, pods, and e-liquids. It is reasonable to assume that consumers visiting a JUUL hashtag and encountering vaping product advertisements may be confused regarding affiliation with the JUUL brand. JUUL could reasonably argue that it is unfair for its trademarked hashtags to be used as a marketing channel by its competitors when the company itself has halted its own promotion via these channels.

Should JUUL assert trademark infringement over use of its brand name in hashtags, Instagram could simply honor the request or deny it.<sup>21</sup> Because a bevy of JUUL's competitors have been using the channel with such regularity, Instagram could justify shutting down JUUL containing hashtags much as it has done for hashtags overtaken by spam. Alternatively, Instagram could interpret JUUL's objection more narrowly and ban, for example, only those posts from JUUL's competitors. Ironically, this exclusion would mean that the only vaping related posts remaining on these hashtags would display JUUL's own product line.

### Instagram Community Guidelines Incompatibility

Instagram maintains a Community Guidelines policy with the stated purpose of: *"... to be an authentic and safe place for inspiration and expression."*<sup>22</sup> The Guidelines also express a commitment to the wellbeing of its community of users: *"We created the Community Guidelines so you*

*can help us foster and protect this amazing community.” Incorporating terms such as “safe” and “protect” imply a commitment by Instagram to mitigate community harm on its platform. Symbolic of their assumption of responsibility to avoid harm to their community, both Instagram and its parent company Facebook prohibit all forms of paid tobacco promotion on its platforms, including e-cigarette products. Nevertheless, studies have shown that unpaid organic tobacco marketing via social media posting flourishes.<sup>15</sup>*

The rapidly rising popularity of JUUL e-cigarette among American youth has been described as an “epidemic” by public health leaders including former US Food and Drug Administration (FDA) Commissioner Scott Gottlieb and Surgeon General Jerome Adams.<sup>23, 24</sup> The upswing in nicotine addiction among adolescents threatens to reverse years of progress in reducing tobacco use. Even the company has admitted that social media has been a central factor in establishing JUUL as a fad among teens.<sup>4</sup> In its Trademark Use Guide JUUL makes a clear statement: “Do not display the Marks or depict our products in connection with any materials that are directed to minors . . . ”<sup>25</sup>

## CONCLUSIONS:

Given the rapid upswing in the popularity of #juul since the company halted its social media posting, the company leaders who implement Instagram’s Community Guidelines could decide to shut down JUUL hashtags based upon their commitment to mitigate community harm. Instagram has understandably been disinclined to position itself as the arbiter which judges which topics advocates seek to have banned. Those managing Instagram’s community guidelines have already taken actions to limit posts relating to self-harm and eating disorders, among others. As tobacco use is the number one cause of preventable death in the developed world, and Instagram’s social network has catalyzed a major upswing in youth use, a persuasive argument can be made that it logically deserves to be included on this list. The fact that virtually all nicotine addiction commences during adolescence, a time when youth are a vulnerable population especially susceptible to both skillfully targeted tobacco marketing and peer influence, justifies action based upon the objective of mitigating community harm. That teens are the age group most enthusiastically engaged with Instagram’s network, as is well illustrated by JUUL branded hashtags, emphasizes the importance of Instagram intervening on behalf of the wellbeing of its youthful users.

## REFERENCES:

1. JUUL Youth prevention. JUUL Labs implements new social media policy for Instagram, Facebook, and Twitter. <https://newsroom.juul.com/2018/06/14/juul-labs-implements-new-social-media-policy/> (accessed July 10, 2019)
2. Burns K. JUUL Labs action plan. Shutting down social media and ramping up our fight against third party accounts. Published November 13, 2018. <https://newsroom.juul.com/2018/11/13/juul-labs-action-plan/> (accessed July 10, 2019)
3. JUUL Labs. Our commitment to youth prevention. Published June 20, 2019. <https://newsroom.juul.com/2019/06/20/our-commitment-to-youth-prevention/> (accessed July 10, 2019)
4. Jackler RK, Chau C, Getachew BD, Whitcomb MM, Lee-Heidenreich J, Bhatt AM et al. JUUL advertising over its first three years on the market. Stanford Research into the Impact of Tobacco Advertising White Paper 2019. [http://tobacco.stanford.edu/tobacco\\_main/publications/JUUL\\_Marketing\\_Stanford.pdf](http://tobacco.stanford.edu/tobacco_main/publications/JUUL_Marketing_Stanford.pdf) (accessed July 10, 2019)
5. Allem JP, Escobedo P, Chu KH, Boley Cruz T, Unger JB. Images of little cigars and cigarillos on Instagram identified by the hashtag #swisher: Thematic Analysis. *J Med Internet Res* 2017; 19:e255.
6. Allem JP, Chu KH, Cruz TB, Unger JB. Waterpipe promotion and use on Instagram: #hookah. *Nicotine Tob Res* 2017;19:1248-1252.
7. Ben Taleb Z, Laestadius LI, Asfar T, Primack BA, Maziak W. #Hookahlife: The rise of waterpipe promotion on Instagram. *Health Educ Behav* 2019;46:106-113.
8. Laestadius LI, Wahl MM, Cho YI. #Vapelife: An exploratory study of electronic cigarette use and promotion on Instagram. *Subst Use Misuse* 2016;51:1669-1673.
9. Keyhole. Hashtag and keyword tracking for #juul. <https://keyhole.co> (accessed July 10, 2019)
10. Stanford Research into the Impact of Tobacco Advertising. #juul posts. [tobacco.stanford.edu/pods/juul/twitter](http://tobacco.stanford.edu/pods/juul/twitter) (accessed July 10, 2019)
11. Jaffray P. Most popular social networks of teenagers in the United States from fall 2012 to spring 2019. In Statista. Published April 8, 2019. <https://www.statista.com/statistics/250172/social-network-usage-of-us-teens-and-young-adults/> (accessed July 10, 2019)
12. Anderson M, Jiang J. Teens, social media & technology 2018. Pew Research Center. Published May 31, 2018. <https://www.pewinternet.org/2018/05/31/teens-social-media-technology-2018/> (accessed July 10, 2019)
13. Czaplicki L, Kostygina G, Kim Y, et al. Characterising JUUL-related posts on Instagram. *TobControl* 2019. doi: 10.1136/tobaccocontrol-2018-054824. [Epub ahead of print]
14. Kim AE, Chew R, Wenger M, Cress M, Bukowski T, Farrelly M, Hair E. Estimated ages of JUUL Twitter followers. *JAMA Pediatr* 2019;173:690-692.
15. Jackler RK, Li VY, Cardiff RAL, Ramamurthi D. Promotion of tobacco products of Facebook: policy versus practice. *Tob Control* 2019;28:67-73.
16. Jan A. List of banned hashtags. Preview. Published Jan 15, 2018. <https://thepreviewapp.com/list-of-banned-instagram-hashtags-2018/> (accessed July 10, 2019)
17. Berrios R. Instagram has blacklisted over 100k hashtags, how can I find the full list of these hashtags? Quora. <https://www.quora.com/Instagram-has-blacklisted-over-100k-hashtags-how-can-I-find-the-full-list-of-these-hashtags> (accessed July 10, 2019)
18. Instagram banned hashtags. Instavast. Published Jun 3, 2019. <https://instavast.com/instagram-banned-hashtags/> (accessed July 10, 2019)
19. Instagram: What is trademark infringement? [https://help.instagram.com/1904208239817294?helpref=faq\\_content](https://help.instagram.com/1904208239817294?helpref=faq_content) (accessed July 10, 2019)
20. Instagram: Can I report a username for infringing my trademark? <https://help.instagram.com/2039132876317734?helpref=search&sr=4&query=%23trademark> (accessed July 10, 2019)
21. Instagram Trademark Report Form: Use this form to report content that you believe infringes your trademark rights. [https://help.instagram.com/contact/230197320740525?helpref=faq\\_content](https://help.instagram.com/contact/230197320740525?helpref=faq_content) (accessed July 10, 2019)
22. Instagram Community Guidelines. <https://help.instagram.com/477434105621119> (accessed July 10, 2019)
23. U.S. Food and Drug Administration. Statement from FDA commissioner Scott Gottlieb, M.D., on new steps to address epidemic of youth e-cigarette use. Published Sep 12, 2018. <https://www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-new-steps-address-epidemic-youth-e-cigarette-use> (accessed July 10, 2019)
24. U.S. Department of Health and Human Services. Surgeon General releases advisory on E-cigarette epidemic among youth. Published Dec 18, 2018. <https://www.hhs.gov/about/news/2018/12/18/surgeon-general-releases-advisory-e-cigarette-epidemic-among-youth.html> (accessed July 10, 2019)
25. JUUL Labs, Inc. Brand usage and trademark use guide. <https://www.juul.com/tm-guide> (accessed July 10, 2019)

**Table #1.** Rising number of community posts to #juul after JUUL halt its social media marketing. Over the 3 years and 5 months between the introduction of #juul (June 4, 2015) and the company ceasing social media marketing (November 13, 2018) over a quarter of a million posts appeared. In the 7 months since the company ceased its own promotional postings, the rate of community posting accelerated markedly resulting in the number of posts doubling to over half a million.

**#juul Post Count tracked by SRITA**

October 17, 2018      260,866

November 12, 2018    269,051

JUUL announced shut down of Instagram postings on Nov 13, 2018

December 10, 2018    289,479

January 21, 2019      336,308

March 5, 2019        391,930

June 29, 2019        518,287

July 7, 2019          526,052

July 18, 2019        538,173



**Table #2:** Leading JUUL hashtags before and after JUUL halted its use of social media for marketing purposes. Both #juul and #juulvapor were initiated by the company. JUUL heavily promoted “switch” campaign aimed at adult smokers has comparably very few posts, indicative of the youthful skew of JUUL hashtags. Posts are a conservative metric of social media activity as viewership and other forms of engagement are many times higher.

	Number of New Posts		Increase in Posts
	July 7, 2019	October 17, 2018 <sup>*#</sup>	(Δ 8 months)
#juul	526,052	260,866	265,186 (102%)
#juulpods	60,122	28,741	31,381 (109%)
#juulnation	50,428	23,273	27,155 (117%)
#juulvapor	47,186	33,945	13,241 (39%)
#juullife	15,111	10,299	4,812 (47%)
#juulgang	44,222		
#juulmemes	34,825		
#juuling	19,790		
#juultricks	15,189		
#juulcentral	11,810		
#juuls	11,596		
#doit4juul	11,235		
#doitforjuul	9,558		
#juulgod	3,241		
#switchtojuul	1,393		

\*After November 13, 2018 JUUL stopped posting to its hashtags.

# Data (reference # 4 SRITA White Paper)

**Figure 1.** Initial use of #juul appeared on a series of JUUL Vapor company tweets depicting attendees at JUUL's New York City launch party on June 4, 2015.



**Figure 2.** After JUUL halted its Instagram posting in November 2018 the rate of new posts by the community tripled leading to a doubling of post from 269,051 to 537,278 over 8 months.

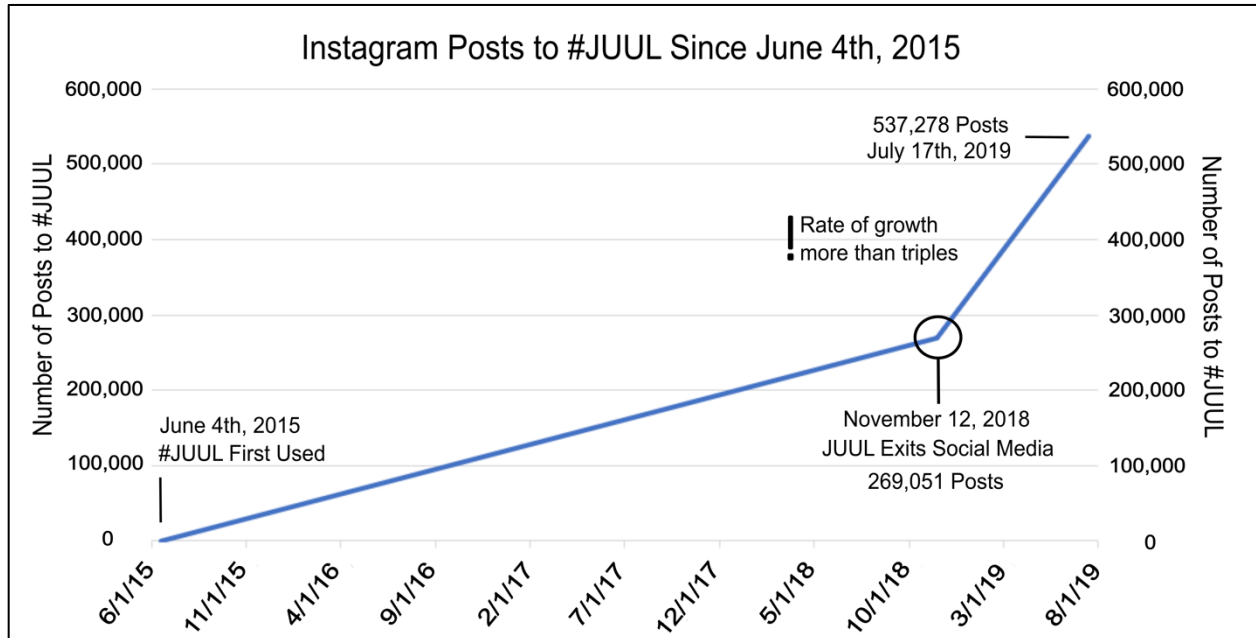


Figure 3. Youth oriented post to #juul in July 2019.

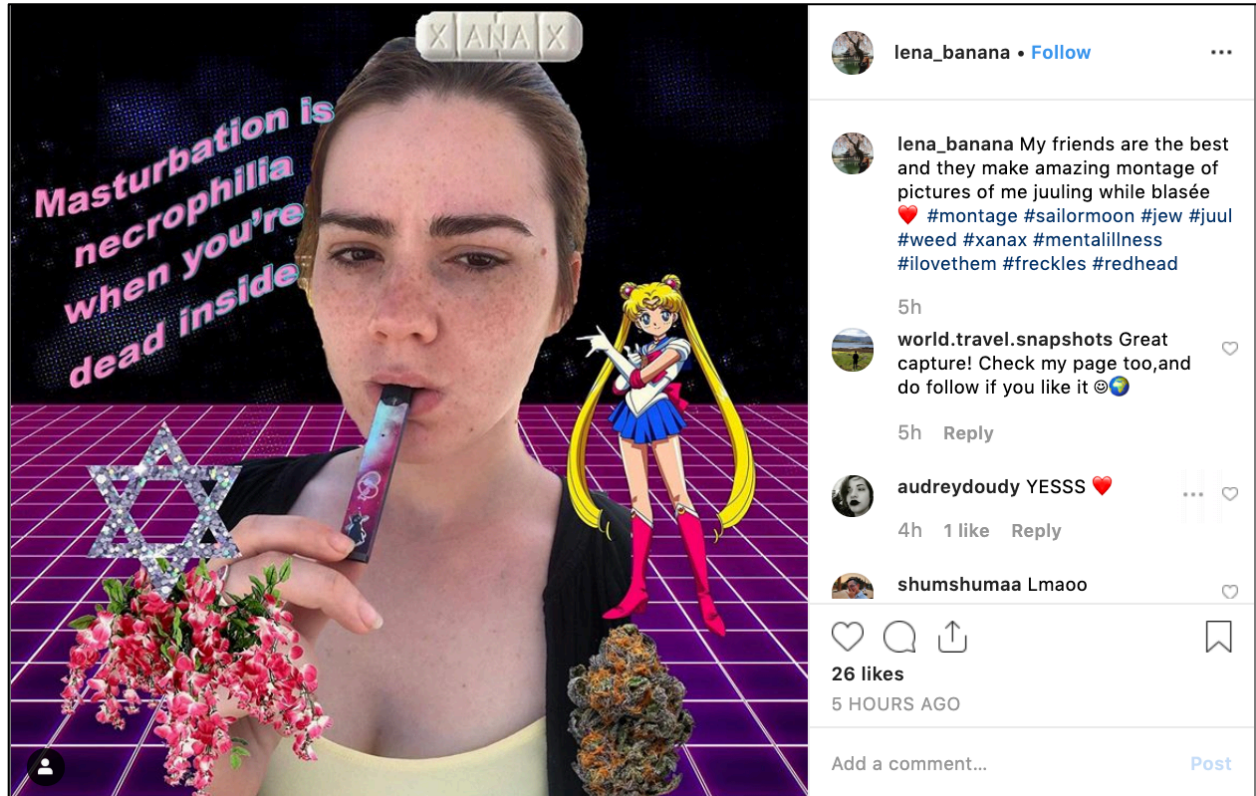
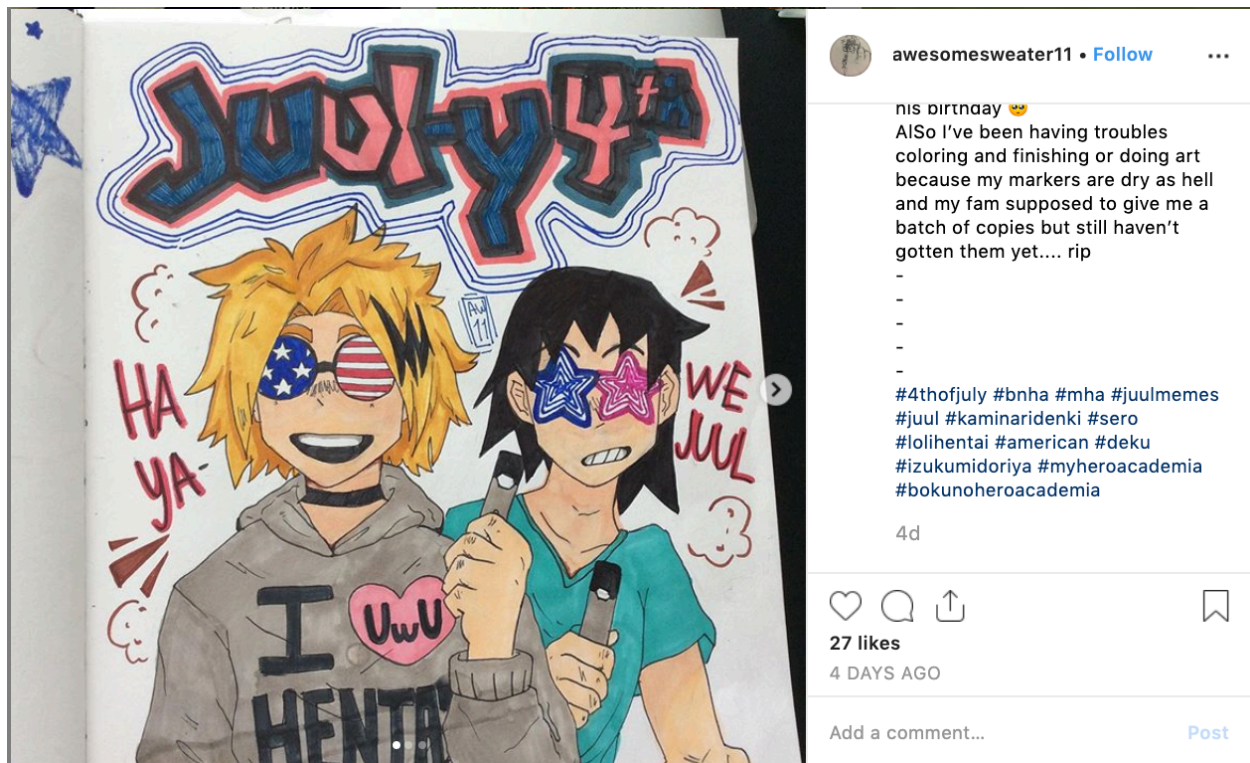


Figure 4. Youth oriented post to #juul in July 2019.



**Figure 5.** Youth oriented post to #juul in July 2019.

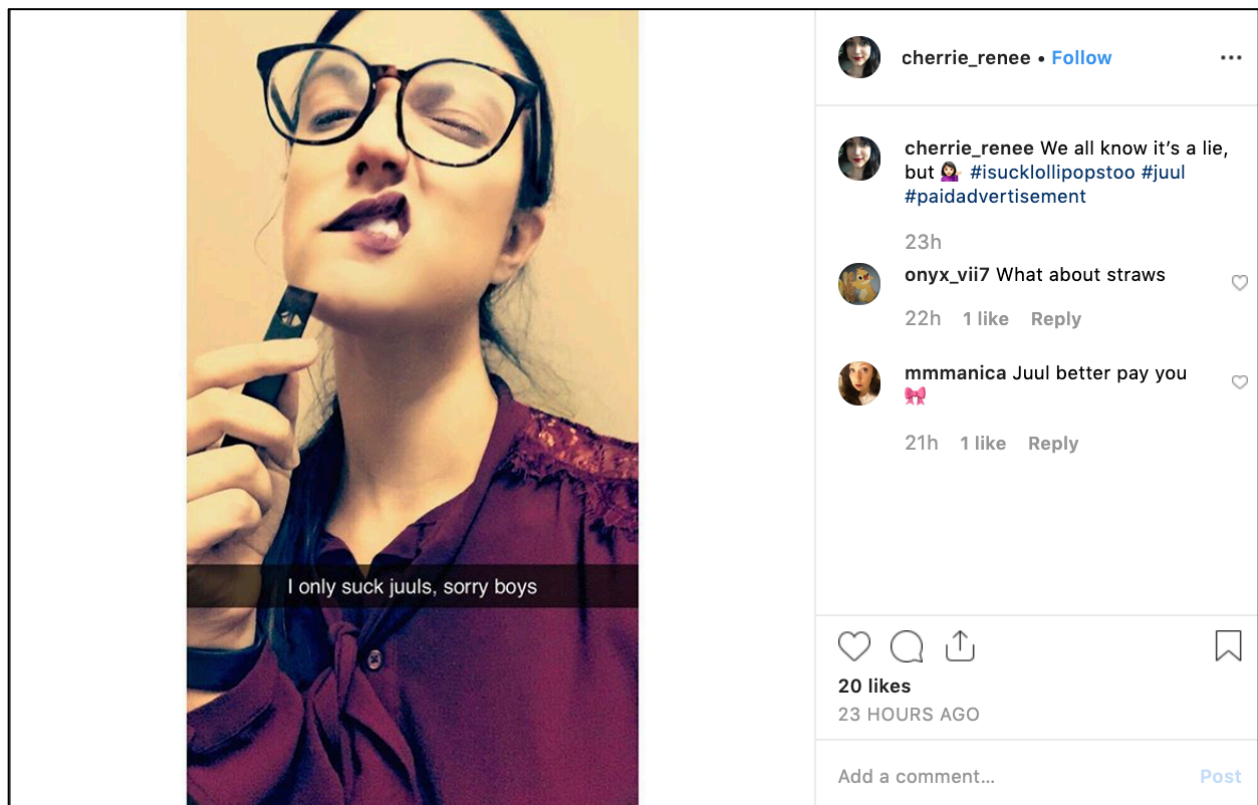




Figure 6. Youth oriented post to #juul in July 2019.



**Figure 7.** Youth oriented post to #juul in July 2019 with the JUUL device outfitted with wheels from a 'Tech Deck' skateboard, a popular toy among children in Middle School.





**Figure 8.** Disturbing video posted to #juul in July 2019. In the video the child takes the JUUL into his mouth and sucks on it.



**Figure 9.** One of many JUUL competitor post on #juul in July 2019.

