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Exposure of Children and Adolescents to Alcohol Marketing on Social Media Websites

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Abstract — Aims: In 2011, online marketing became the largest marketing channel in the UK, overtaking television for the first time. This study aimed to describe the exposure of children and young adults to alcohol marketing on social media websites in the UK. **Methods:** We used commercially available data on the three most used social media websites among young people in the UK, from December 2010 to May 2011. We analysed by age (6–14 years; 15–24 years) and gender the reach (proportion of internet users who used the site in each month) and impressions (number of individual pages viewed on the site in each month) for Facebook, YouTube and Twitter. We further analysed case studies of five alcohol brands to assess the marketer-generated brand content available on Facebook, YouTube and Twitter in February and March 2012. **Results:** Facebook was the social media site with the highest reach, with an average monthly reach of 89% of males and 91% of females aged 15–24. YouTube had a similar average monthly reach while Twitter had a considerably lower usage in the age groups studied. All five of the alcohol brands studied maintained a Facebook page, Twitter page and YouTube channel, with varying levels of user engagement. Facebook pages could not be accessed by an under-18 user, but in most cases YouTube content and Twitter content could be accessed by those of all ages. **Conclusion:** The rise in online marketing of alcohol and the high use of social media websites by young people suggests that this is an area requiring further monitoring and regulation.

INTRODUCTION

Alcohol is one of the three leading risk factors for global disease burden (Lim *et al*., 2012), and in adolescents in particular increases the likelihood of injury and risky behaviour such as unsafe sex (Bonomo *et al*., 2002). Exposure to alcohol marketing has been identified as one factor that may lead to underage alcohol consumption (Anderson *et al*., 2009).

The internet is an area where exposure of young people to alcohol marketing is potentially high. In Europe, up to 30% of internet users are under the age of 25 years and the time spent online tends to be highest in this group, at around 30 h per month (comScore, 2011). In the UK, alcohol marketing on the internet is regulated by the UK Code of Non-broadcast Advertising, Sales Promotion and Direct Marketing (The CAP code) (Committee of Advertising Practice, 2010). The regulation covers both the content and targeting of alcohol marketing in an attempt to protect young people from such marketing. Yet existing evidence suggests that the regulation may fall short of achieving this goal. For example, Gordon (2011) and The Centre on Alcohol Marketing and Youth (2004) have shown how websites maintained by alcohol brands host a variety of content, including content that may be particularly appealing to children and adolescents such as games, downloadable content, e.g. screensavers, and cartoons.

A more recent phenomenon is the emergence of alcohol marketing through social media websites. Studies have highlighted the large volume of alcohol-related content presented on such websites and the inadequacy of current mechanisms to protect adolescents from online marketing exposure (Mart *et al*., 2009; Moreno *et al*., 2010; Leyshon, 2011; Nicholls, 2012). Existing work has examined the way in which this content is designed to influence the audience (McCreanor *et al*., 2005; Chester *et al*., 2010) and pinpoint new tactics, such as the use of viral marketing to encourage users to endorse a product by word-of-mouth (Mart, 2011) and user engagement with the brand (Montgomery and Chester, 2009). There are concerns that such strategies may increase the effect of marketing on young people, and further social science research is needed to understand the mechanisms through which such marketing operates.

The impact of online marketing on young people is likely to depend both on the content and the quantity of such exposure among young people. A recent study suggested that the highest frequency of alcohol marketing seen by adolescents online is on social networking sites (SNS) (Hartigan and Coe, 2012). We extend this work, focusing on the exposure of young people to alcohol marketing on social media websites (including SNS). Specifically, we seek to explore the range of social media websites that are most used by young people online and the alcohol marketing content that is presented on these websites, to better understand the nature and scope of exposure of young people to online alcohol marketing. We further examine the restrictions that are in place on underage access to alcohol marketing online in order to assess the potential effectiveness of marketing self-regulation on exposure to marketing content online.

METHODS

Data

We obtained data on online audiences from Ebiquity, a media and marketing analytics company that draws on comScore, a widely used resource for digital reach and penetration data (comScore, 2012). We obtained data on the three most viewed social media websites among those aged under 25 for each month from December 2010 to May 2011 based on unique user figures, disaggregated by age (6–14 years; 15–24 years) and gender.

Data provided information on percentage reach, that is, the percentage of available internet users in a given age/gender

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group who used the site in question in each month, and impressions, which refers to the number of individual pages that the selected age/gender group viewed on that site in each month. We describe these figures for the overall three most viewed social media websites (Facebook, YouTube and Twitter), by age and gender, averaged across the period from December 2010 to May 2011.

Alcohol brand case studies

Given our finding that Facebook, YouTube and Twitter were the three most viewed social media websites across the months investigated, we selected these as case studies to better understand alcohol marketing and user engagement with this marketing.

For Facebook, YouTube and Twitter, we examined user engagement with five alcohol brands that we identified in a related analysis as those with the highest advert impacts (total number of views of an advert) in television advertising among the 4–15 year age group in the UK (Winpenny *et al*., 2012). These were: Foster's (beer), Tia Maria (liqueur), Stella Artois (beer), Carling (beer) and Magners (cider).

For each brand we identified the marketer-generated brand presence on Facebook, YouTube and Twitter. In this study we focused on alcohol content that derived from the alcohol marketers, rather than user-generated content, such as fan pages or interest groups. Marketer-generated brand content was identified either by following links from the alcohol brand website, by a statement 'this is the official page' on the social media page or by the presence of content originating from the alcohol brand, such as competitions and product giveaways. Where more than one marketer-generated page was available, typically associated with different countries, we chose the UK page.

For each of the five alcohol brands we further assessed the content of the designated Facebook page, YouTube channel and Twitter profile. Specifically, we assessed the type and quantity of marketer-generated content and the frequency of marketer updates. We also examined the links from each page to other online marketing sites for that brand, and the presence of responsible drinking or age control messages. We further explored age restrictions on marketer-generated social media content on Facebook, Twitter and YouTube, by means of fictional user profiles. We set up two profiles for each social media channel, one for a fictional user aged under 18 years (age 14) and one for a fictional user older than 18 years (age 24). We used these profiles to visit Facebook, YouTube and Twitter, to assess what content could be accessed. This allowed us to determine the use of age-restriction mechanisms for each of the five alcohol brands chosen.

Analyses as described in this paper were carried out from February to April 2012. Online content tends to change frequently within short periods of time; we therefore give precise dates for each of the observations made.

RESULTS

Online audience data showed that, in the UK, Facebook and YouTube were the top two most viewed social media websites used by those aged 6–14 and 15–24 years between December 2010 and May 2011. Twitter was the third most viewed social media website in all these months for the 15–24 age group, but this differed for the 6–14 age group with both Formspring and Wikia taking third place in certain months. Table 1 presents the summary metrics for Facebook, YouTube and Twitter, averaged across the 6 months studied.

Table 1. Reach and impressions of Facebook, YouTube and Twitter among males and females, age 6–14 and 15–24, monthly data, averaged across December 2010 – May 2011

	Males 6–14	Females 6–14	Males 15–24	Females 15–24
	Average reach (% of internet users)			
Facebook	39	48	89	91
YouTube	41	43	81	73
Twitter	5	10	19	19
	Average number of impressions (million)			
Facebook	697	934	2782	2717
YouTube	230	154	799	460
Twitter	5	82	22	52

Source: Ebiquity.
Note: Twitter data for those aged 6–14 is averaged across the 3 months (males) and 5 months (females) where Twitter was among the three most viewed social media sites for these groups.

Presence of alcohol brand content on Facebook, Twitter and YouTube

For all five alcohol brands studied, Foster's (beer), Tia Maria (liqueur), Stella Artois (beer), Carling (beer) and Magners (cider), we identified Facebook pages by following a link from the alcohol brand website or by the presence of marketer-generated content, such as competitions for brand products. Some Facebook pages also included a statement such as 'Welcome to the official Tia Maria page on Facebook.' (Facebook, 2012c). Similarly, all brands maintained a direct or indirect link to Twitter from their websites. Conversely, links to YouTube marketer-generated content were less obvious. While we identified a YouTube channel that was associated with all five brands, it was only possible to confirm that Foster's, Magners and TiaMaria presented marketer-generated content as exemplified by a web link from the Foster's and Magners brand website, or direct statements ('Welcome to the official Tia Maria channel on YouTube!' (YouTube, 2012)). While we have included the findings from Carling and Stella Artois YouTube channels in Table 3, it should be noted that these may be user-generated rather than marketer-generated.

User engagement with alcohol brand content on Facebook, Twitter and YouTube

The levels of user engagement with marketer-generated social media websites are shown in Table 2. For each brand page, we made use of features embedded in the social media website, such as Facebook 'likes', the number of subscribers (YouTube) or followers (Twitter). We were unable to disaggregate this information by age.

Facebook engagement can be assessed by the number of likes and the number of 'People Talking About This' (Table 2). Likes are created when a user clicks on a 'like' button on the brand page, to indicate that they like a brand (Facebook, 2012b). This can only be performed once by each user. It then places a 'story' on the user's profile wall, which will also be shown in the news feed of the user's friends, reporting that the user liked the page, and providing a link to the brand page. Once the user has 'liked' a page, s/he will

Table 2. User engagement with social media sites (21 March 2012)

	Foster's	Carling	Tia Maria	Stella Artois	Magners
Facebook: Likes	127,268	75,328	70,024	183,091	122,486
Facebook: 'People Talking About This'	2767	2165	557	2628	1003
YouTube: Subscribers	11,561	51[a]	14	49[a]	46
YouTube: Video views	9,351,097	94,172[a]	30,584	14,837[a]	93,681
Twitter: Followers	3812	47[b]	1298	3310[b]	3984

[a]These pages may have been marketer-generated or user-generated.
[b]As of 27 March 2012.

receive updates in his/her wall from that page. Facebook's 'People Talking About This' gives an indication of the number of people who created a 'story' about a page in a 7-day period. 'Stories' can be created by liking a page, but also by other activities, including posting on a page wall, liking a post, answering a question, responding to an event and several other actions (Inside Facebook, 2012).

The item 'YouTube subscribers' in Table 2 indicates the number of people who have 'subscribed' to the YouTube channel. YouTube content is organized into YouTube channels which can be created by an individual or by a brand, and is where the video content created by that individual/brand is stored. Subscribing to a channel adds this channel to a user's homepage and the user will then receive updates from the channel. The item 'Twitter: Followers' shows the number of people who have signed up to follow the company in question on Twitter, so that tweets (short messages) from the brand account appear in the individual user's Twitter feed.

Content of alcohol marketing on Facebook, YouTube and Twitter

We analysed the content of alcohol marketing on Facebook, YouTube and Twitter to assess the extent to which marketing was delivered through each medium, the types of content presented and the ways in which users were induced to engage with and share each medium. Due to the different natures of each of the three social media websites, it was not possible to categorize content in the same way across all social media types. Instead, we noted the types of content that were found, focussing particularly on links to other social networking websites and any responsible drinking or age control messages (Table 3).

YouTube is primarily a video sharing platform and the content of alcohol brand channels included product adverts, demonstrations of how to prepare cocktails (Tia Maria), videos about how the adverts were made, and comedy videos. Twitter is based on what is known as a twitter 'feed' which is populated by 'Tweets', short comments made by those holding individual or organizational Twitter accounts. Facebook operates a multifunctional platform, revolving around a user or brand Facebook page. Brand marketers and other users can post comments, share photos and videos and also upload applications, such as games. An additional Facebook function is the 'like' button which allows users to indicate that they like the brand and then links the two user profiles, allowing the brand to share further marketing with the user. Use of the 'like' button also places a message on the Facebook page of friends of the user, letting them know that the user 'liked' a certain page (Lipsman *et al.*, 2011; Facebook, 2012b). In some cases 'likes' were actively encouraged, for example requiring a user to 'like' a page before they could enter a competition.

Across the three social media platforms investigated, different alcohol brands structured their online activity around different themes intended to engage social media users. Foster's online activity was centred on Foster's sponsored comedy videos. The YouTube channel and Facebook page both showed comedy videos, and the Twitter feed discussed these videos. Meanwhile the Carling Facebook page focused mainly on sport, with the Carling twitter account based around the Carling Cup, a football competition, rather than Carling itself.

Age restrictions to alcohol marketing on social media websites

We created profiles for a fictitious 14-year-old and a 24-year-old user to access alcohol brand-related social media websites. Each of the five marketer-generated brand pages on Facebook had age restrictions in place that meant that they could only be accessed by the 24-year-old user.

Conversely, YouTube does not require users to sign in before viewing video content, thereby making all content accessible to users of any age. Moreover, even after the age-14 user had completed the optional sign-in process, they were still able to access and subscribe to all five alcohol brand channels, demonstrating that no age restrictions were in place for YouTube content.

Twitter does not register the age of those signing up for a twitter account and does not operate a mechanism for age restriction unless the brand marketers require users to verify their age through an external mechanism. Three of the five Twitter accounts could be accessed by both the 24-year-old and 14-year-old fictitious users; however, both Stella Artois and Carling required an age approval process before users could 'follow' the twitter account and see the tweets. In the case of Carling this involved accessing the Carling website and entering personal information, including confirmation that the user was over the legal drinking age. Stella Artois twitter stated that the account was protected and that the follow request was pending at the time of undertaking the research (21 February 2012) (Twitter, 2012a). In both cases these sign-up requests then had to be processed by the twitter account managers. This process was not completed during the 2-month data collection period and we were therefore unable to monitor the frequency and type of tweets being made for these accounts during the study period. At the time of writing, this issue had still not been resolved.

A further common approach intended to prevent underage users from viewing alcohol-related content is a message

Table 3. Marketer-generated content on Facebook, YouTube and Twitter (February and March 2012)

Marketer-generated content	Foster's	Carling	Tia Maria	Stella Artois	Magners
Facebook (accessed 21 February 2012)	http://www.facebook.com/fosters	http://www.facebook.com/Carling	http://www.facebook.com/tiamariadrink	http://www.facebook.com/stellaartoisuk	http://www.facebook.com/magnerscider
'Like' button	✓	✓	✓	✓	✓
Page wall	✓	✓	✓	✓	✓
Video advert	✓	✓	✓	✓	–
Competitions/ free giveaways	✓	✓	✓	✓	–
Alcohol sale links	–	–	–	–	✓
Examples of additional content/applications on page	Comedy videos	Sports info Music info Photos and videos of football	Cocktail recipes Mask yourself app Information about ad campaign	Adverts Prize draw	Twitter feed
Frequency of brand comments on wall	Daily	>weekly	>weekly	>weekly	Daily
Link to website	✓	✓	✓	✓	✓
Link to drinkaware	✓	✓	✓	✓	✓
Link to Twitter	–	–	–	–	✓
YouTube (accessed 21 March 2012)	/fosters	/carlinglageruk	/tiamariadrink	/StellaArtoisAnno1366	/UKMagners
Number of videos	97	2	16	10	17
Latest activity (as of 21 March 2012)	21 March 2012	22 February 2012	5 December 2011	July 14, 2011	March 21, 2012
Types of video content	Comedy videos Adverts	Adverts	Adverts Demonstrations of cocktail recipes Footage of events	Adverts	Adverts Comedy videos
Link to website	✓	–	✓	✓	–
Link to Facebook	–	–	✓	–	–
Link to Twitter	–	–	✓	–	–
Link to drinkaware	–	✓	–	–	–
Age control message	–	✓	✓	–	–
Twitter (accessed 21 February 2012)	@fostersfunny	@thecarlingcup	@tiamariadrink	@Stella_Artois	@MagnersUK
Number of tweets	1873	252	536	466	2560
Frequency of tweets	>daily	Restricted	>weekly	Restricted	>weekly
Tweet subjects	Comedy videos	Restricted	Recipes Fashion Responses to followers comments	Restricted	Facts and suggestions about Magners Questions Responses to followers comments
Link to drinkaware	–	Restricted	–	–	–
Age control message	✓	✓	✓	✓	–

Key: '✓' indicates that item is present; '–' denotes item not present; '> weekly' refers to 'at least once per week'.

on the relevant page stating, for example, 'You must be of legal drinking age in your country to follow @tiamariadrink.' (Twitter, 2012b). Only two of the five YouTube channels (Carling and Tia Maria) provided such a message. Twitter displayed a higher number of age-related messages, with four out of five brands including an age control message on their brand page.

DISCUSSION

To our knowledge, this is the first study attempting to describe the exposure of children and young adults to alcohol marketer-generated content on social media websites in the UK. We have provided evidence that social media websites such as Facebook, YouTube and Twitter are heavily used by children and young adults, and that such sites are used for marketing by alcohol companies.

In the absence of detailed knowledge about the ages of those viewing each page, we have provided an overview of population engagement with specific brand pages through the 'likes', 'follows' and video views recorded on Facebook, Twitter and YouTube, respectively. Although it was not possible to determine the proportion of young people in these user groups, it seems likely in cases where there are no age restrictions, (YouTube and Twitter) that many young people could be accessing alcohol-related content.

The systematic use of age restrictions on alcohol content was limited to Facebook; no mechanism for restriction of viewers on the basis of age was found on YouTube or Twitter websites. However, although Facebook requires that all alcohol advertising is targeted at the appropriate age demographic for each country (Facebook, 2012a), there is currently no method for monitoring whether Facebook users are stating their true age. Our data suggest that incorrect ages are often given on the Facebook profiles of younger children. Facebook requires users to be at least 13 years of age to sign up for an

account (Facebook, 2012d). Yet, according to our data, 39% of boys and 48% of girls aged 6–14 accessed Facebook during December 2010 to May 2011.

Current regulation of alcohol marketing online is covered by the UK Code of Non-broadcast Advertising, Sales Promotion and Direct Marketing (The CAP code) (Committee of Advertising Practice, 2010) which stipulates 'no medium should be used to advertise alcoholic drinks if >25% of its audience is under 18 years of age' (Committee of Advertising Practice, 2010). As we have shown, a very high proportion of young people use social media websites. This suggests that the current cut-off limit of 25% of the audience is either not implemented, or not sufficient to protect children. In order to protect children from alcohol advertising, it will be necessary either to implement a comprehensive ban on internet alcohol advertising, or to put in place more effective measures to reduce exposure.

Previous studies have discussed the ways in which social media marketing is used to attempt to engage social media users with the brand. Techniques include the use of interactive content (Chester *et al*., 2010), the encouragement of word-of-mouth marketing between users (Mart, 2011), and the use of viral marketing, an extension of word-of-mouth marketing (Montgomery and Chester, 2011, Petrescu and Korgaonkar, 2011). It has been suggested that use of these techniques means that social media marketing may have a stronger effect than traditional advertising on young people (Montgomery and Chester, 2009). Our study identified a number of strategies where alcohol marketers attempted to encourage interaction between social media users and the alcohol brand. These included the use of the 'like' button, posting of comments and questions on Facebook pages or Twitter feeds, the use of competitions and provision of additional material such as comedy videos or sports information which the user might find interesting or amusing.

This study has a number of limitations. Firstly, we focused our case studies of five alcohol brands on only three social media websites. These websites were identified from our data as the social media websites which were most used by young people; however, there remains potential for children to be exposed to alcohol marketing through other social media websites. Demographic data were only available at the level of the websites rather than individual pages, so we were unable to identify the ages of those engaging with individual alcohol-related pages, or the amount of time users spent viewing or engaging with alcohol-related pages. In addition, we have provided just a snapshot of the current availability of and engagement with alcohol-related content using selected alcohol brands. Online content changes frequently and further work should seek to explore the changing nature of content over a longer time period.

This study has demonstrated a potential for high exposure of children and young adults to alcohol marketing through social media websites. This, together with existing evidence of an increased likelihood of initiation of underage drinking attributable to alcohol marketing exposure (Anderson *et al*., 2009), indicates a need to monitor and, if necessary, impose further restrictions on online marketing.

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