

**Supplementary File 6:** Summary of cross-sectional research reviewed into user-created alcohol promotion

Author	Sample	User-created promotion measure	Outcome measures	Findings
Canbrera-Nguyen et al. (2016)	<i>n</i> = 587 18-25 year olds United States	<u>Twitter</u> : peer tweets, followed drinking-related accounts, and tweeted about consumption ( <i>Yes/No</i> ). Those posting or following were classed as active and those who observed classed as passive.	<u>Heavy drinking</u> : Consuming five or more drinks within a few hours on at least one day in the last thirty ( <i>Yes/No</i> ).	Only 28% had no experience of pro-alcohol content. Over a third were passively involved, while the majority (38%) reported active involvement. Odds of reported heavy drinking were two times higher in those passively involved and nine times higher in those actively involved in pro-alcohol Twitter content.
D'Angelo et al. (2014)	<i>n</i> = 288 18-19 year olds United States	Participants read vignette detailing a senior student's Facebook profile which displayed wall-posts, pictures, and updates which either promoted consumption or prosocial behaviour.	<u>Intention</u> to drink alcohol with hypothetical student at a party ( <i>not specified</i> ).	Associations reported between user-created alcohol promotion and intentions to imbibe, for both alcohol-related and prosocial content. Wall posts had strongest influence, followed by pictures, and status updates.
Epstein (2011)	<i>n</i> = 270 13-17 year olds United States	<u>Online behaviours</u> : e-mails, games, video games, chat rooms, shop, social media, information, listen music, and education ( <i>Never – Always</i> )	Ever drinking, drank alcohol in the past month ( <i>Yes/No</i> ).	Ever drinking alcohol was associated with social network use and listening to music. Past month drinkers used the computer more hours per week (excluding school work) and listened to more music online.
Glassman (2012)	<i>n</i> = 445 18-24 year olds United States	Posting pictures of themselves or other consuming alcohol to the Facebook profiles.	Core Alcohol and Drug Survey, including average number of drinks per week.	Twenty-nine per cent had posted pictures of themselves consuming alcohol, while 56% had posted pictures of friends. Over a third who posted pictures were not legal drinkers (39%). There was an association between posting photos drinks consumed in the past week.
Kaufman et al. (2014)	<i>n</i> = 4,485 Mean age: 15 year olds South Africa	<u>Ownership</u> : Facebook profile, Mxit profile, e-mail address, sim card, and mobile phone; ( <i>Yes/No</i> ).  <u>Frequency</u> : Social media and other internet use ( <i>Everyday – Never or almost never</i> ).	Alcohol Use Disorders Identification Test (AUDIT) ( <i>Scores of <math>\geq 8</math> denoted hazardous use</i> ).	Having Mxit profile, and using social media every day, was associated with hazardous consumption in males and females. Having a Facebook profile was only associated with hazardous alcohol use in females.

Koff (2013)	<i>n</i> = 315 17-19 year olds United States	<u>YouTube use</u> : Ever uploaded, video private, watched video about alcohol, reason for watching, and frequency of use.	Alcohol attitudes ( <i>0</i> = <i>very negative</i> – <i>6</i> = <i>very positive</i> )  Intentions to drink in next 6 months ( <i>0</i> = <i>Not likely</i> – <i>5</i> = <i>Very likely</i> )  Ever drinking and use in last 28 days ( <i>Yes/No</i> ).	Over a third (39%) reported either searching for or sharing alcohol-related content on YouTube. Students who had seen or shared videos had more favourable attitude to alcohol than those who had not. Searching or sharing was associated with increased intentions to drink in the next 6 months and consumption in the past 28 days. Higher social media usage was seen to amplify the effect.
Miller et al. (2014)	<i>n</i> = 129 (females only) 18-30 year olds (mean 21.48)  Australia	Participants asked to rate % of their own posts, both textual and visual, which related to alcohol ( <i>0, 25, 50, 75 and 100%</i> )	<u>Consumption</u> : (AUDIT-C)  <u>Norms</u> : AUDIT-C answered from perspective of close friends and average students.  <u>Alcohol attitudes</u> : Five semantic items about alcohol (e.g. good – bad; right – wrong) ( <i>7-item Likert scale</i> )	On average, the sample estimated that they spent 16% of their time on Facebook posting alcohol-related text and 21% of their time posting alcohol related photos. In comparison they perceived that peers spent 39% of their time on Facebook posting alcohol-related content.  Posting alcohol-related photos was associated with increased consumption, even when controlling for alcohol-related attitudes and norms. Neither posting own photos, or friends alcohol-related posts, had an association with increased alcohol-related attitudes.
Moreno et al. (2012)	<i>n</i> = 224 18-20 year olds (mean 18.8) United States	Access granted to personal Facebook accounts which were subsequently coded as displaying either no alcohol references, alcohol references, or intoxication/problem drinking references.	AUDIT ( <i>Scores of <math>\geq 8</math> denoted hazardous use</i> )  Alcohol-related injury ( <i>Never – Yes in the past year</i> ).	Of the profiles 64% had no alcohol references, 20% displayed some references and 16% were classified as showing intoxication/problem drinking.  Displayed alcohol references were positively related to being at-risk drinker and also AUDIT score. Intoxication/problem drinkers were more likely to report alcohol-related injury compared to normal or non-displayers of alcohol-references.

Moreno et al. (2013)	<i>n</i> = 66 18-19 year olds United States	Identified students attending an event known for of drinking. Facebook profiles which coded before and after event as ‘event-displayers’ or ‘non-displayers’.	Timeline Follow Back Interview (TLBI) to assess frequency and quantity of consumption in past 28 days.	Fifty per cent of participants made event specific references, while 61% reported consumption on the day. The displayed references on Facebook were positively associated with increased reported alcohol consumption at the event, including number of drinks consumed.
Moreno et al. (2016b)	<i>n</i> = 94 17-19 year olds United States	Facebook and Twitter profiles over a five month period (to reflect college term time). Each profile coded as either ‘alcohol displayers’ or ‘non-alcohol displayers’.	Timeline Follow Back Interview (TLBI) to assess frequency and quantity of consumption in past 28 days.	Participants were more likely to display alcohol references on Facebook compared with Twitter (76% vs. 34%). Number of alcohol reference displays on Facebook and Twitter positively associated with being a drinker and the number of drinks consumed in past 28 days.
Morgan et al. (2010)	<i>n</i> = 314 18-25 year olds United States	Posting, and perceptions of, alcohol-related content on MySpace, Facebook, and YouTube. Measured posts by the individual depicting drinking, content depicting the individual posted by friends, and media depicting peer drinking posted by friends.	Frequency of consumption of alcohol and marijuana ( <i>Never – Once a week</i> ).	The proportion posting pictures of themselves drinking ranged from <1-26%, those who had seen a picture posted by others ranged <1-30%, and the proportion who had seen content posted by friends depicting their own consumption ranged 10-75%. YouTube had the least reported exposure and MySpace the highest.  Over half (55%) thought posting such content was stupid, 28% had no problem, 12% believed it was okay if the person was of legal drinking age, and 6% believed that the context in which the image was posted determined whether it acceptable or not.
Ridout et al. (2012)	<i>n</i> = 158 17-24 year olds Australia	An auto-photographical method was used to prescribe alcohol identify by reviewing the self and peer generated content on individuals social networking profiles (e.g. photographs, textual and wall posts).	AUDIT, Rutgers Alcohol Problem Index (RAPI), Graduated Frequency Index for normal and binge drinking, and College Behaviours Checklist (CBC)	Having a social networking profile with alcohol identity was associated with increased alcohol consumption behaviour and alcohol-related problems across all five of the alcohol scales used, including both consumption and problems.

Rodriguez et al. (2016)	<i>n</i> = 109 17-24 year olds United States	The past 100 posts made by participants on Facebook were coded for alcohol-related content (including status updates, wall posts and photos).	Alcohol Self-Concept Scale (ASCD), Daily Drinking Questionnaire (DDQ), Quantity/Frequency/Peak Alcohol Use Index (QF)	Significant associations were reported for number of alcohol-related posts, alcohol identity, and all indicators of alcohol use (drinks per week, frequency, typical quantity and peak quantity). The effect between alcohol-related posting and drinking was strongest in individuals who had lower drinking identity.
Stoddard et al. (2012)	<i>n</i> = 3,448 18-24 year olds United States	<u>Norms:</u> Five items measuring attitudes about pictures online (e.g. Everybody posts pictures where they are drinking) ( <i>Strongly disagree – Strongly agree</i> ).  <u>Prevalence:</u> Five item measuring how many alcohol-related posts and pictures individuals, or their peers, uploaded online ( <i>None - Almost all</i> ).	<u>Frequency:</u> Past 30 day alcohol consumption ( <i>Never – More than once day</i> ).  <u>Peer consumption:</u> Past 12 month consumption for either beer and wine or distilled spirits ( <i>None – all</i> ).	Prevalence of alcohol-related content was associated with increased frequency of consumption. Higher anticipated regret about posting, however, was associated with lower consumption. Volume of supportive peer norms online was not associated with frequency of consumption.
Thompson et and Romo (2016)	<i>n</i> = 364 Mean age 19 years old United States	<u>Social media posting:</u> Seven items measuring alcohol-related posting across Facebook, Twitter or Instagram (e.g. I share what I am drinking on social networking sites) ( <i>1 = Never, 7 = Always</i> ).	<u>Frequency and quantity:</u> Number of days consumed in last 30 and quantity of drinking consumed.  <u>Problems:</u> Rutgers Alcohol Problem Index.	There were significant correlations between alcohol-related posting on social networking websites and alcohol consumption, alcohol related problems and alcohol-identity. Espousing an alcohol-related identity significantly predicted alcohol-related posting. Posting alcohol-related content positively predicted alcohol-related problems.

van Hoof et al. (2014)	<i>n</i> = 71  17-21 year olds (mean = 21.3)  Holland	<u>Facebook alcohol density</u> : Analysed alcohol-related content on photos, status and information page. Alcohol-related density score computed based on pro-rata volume of content.	<u>Quantity and frequency</u> : Alcohol Quantity-Frequency scale.  <u>Risky use</u> : Alcohol Use Disorders Identification Test.  <u>Risk</u> : Four items from Alcohol Risk Behaviour scale.	Density of alcohol-related content on statuses correlated with Quantity-Frequency scores and Risk Behaviour scores. Density of alcohol-related content on information pages correlated with Quantity-Frequency scores. Density of alcohol-related content photos and overall density scores did not correlate with scores on any outcome measures.
Westgate et al. (2014)	<i>n</i> = 1,106  18-25 year olds (mean = 20.40)  United States	<u>Facebook alcohol content</u> : Ten items, six of which measured both and individual and peers alcohol-related posting activity on Facebook ( <i>Never - Daily</i> ).	<u>Drinking motives</u> : Drinking motives questionnaire.  <u>Consumption</u> : Average week consumption over the last three months; AUDIT scale.  <u>Alcohol problems</u> : Rutgers Alcohol Problem Index  <u>Cravings</u> : Alcohol Craving Questionnaire Short Form Revised.	Moderate and weak correlations between self and peer posting of alcohol-related content and enhancement, social, conformity, and coping motives.  Self-alcohol-related postings positively predicted the number of weekly drinks, alcohol-related problems, risk of alcohol use disorders and alcohol cravings.  Peer-alcohol-related posting only positively predicted scoring on AUDIT scale.