



*Citation for published version:*

McCreanor, T, Lyons, A, Griffin, C, Goodwin, I, Moewaka Barnes, H & Hutton, F 2013, 'Youth drinking cultures, social networking and alcohol marketing: Implications for public health', *Critical Public Health*, vol. 23, no. 1, pp. 110-120. <https://doi.org/10.1080/09581596.2012.748883>

*DOI:*

[10.1080/09581596.2012.748883](https://doi.org/10.1080/09581596.2012.748883)

*Publication date:*

2013

*Document Version*

Peer reviewed version

[Link to publication](#)

This is an Author's Accepted Manuscript of an article published in McCreanor, T., Moewaka Barnes, H., Lyons, A., Griffin, C., Goodwin, I., & Hutton, F. (2013). Youth drinking cultures, social networking and alcohol marketing: Implications for public health. *Critical Public Health*, 23(1), 110-120, copyright Taylor & Francis, available online at: <http://dx.doi.org/10.1080/09581596.2012.748883>

**University of Bath**

**Alternative formats**

If you require this document in an alternative format, please contact:  
[openaccess@bath.ac.uk](mailto:openaccess@bath.ac.uk)

**General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

**Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

## **Youth drinking cultures, social networking and alcohol marketing: Implications for public health**

Tim McCreanor<sup>a</sup>, Antonia Lyons<sup>b</sup>, Christine Griffin<sup>c</sup>, Ian Goodwin<sup>d</sup>, Helen Moewaka Barnes<sup>a</sup> & Fiona Hutton<sup>e</sup>

<sup>a</sup>Whariki Research Group, SHORE and Whariki Research Centre, School of Public Health, Massey University, PO Box 6137, Wellesley Street, Auckland 1010, New Zealand, tel. 0064 9 366-6136, email: [t.n.mccreanor@massey.ac.nz](mailto:t.n.mccreanor@massey.ac.nz)

<sup>b</sup>School of Psychology, Massey University, PO Box 756, Wellington 6140, New Zealand, tel. 0064 4 801-5799, email: [a.lyons@massey.ac.nz](mailto:a.lyons@massey.ac.nz)

<sup>c</sup>Department of Psychology, University of Bath, Bath BA2 7AY, United Kingdom, tel. 0044 (0) 1225 385293, email: [c.griffin@bath.ac.nz](mailto:c.griffin@bath.ac.nz)

<sup>d</sup>School of English and Media Studies, Massey University, PO Box 756, Wellington 6140, New Zealand, tel. 0064 4 801-5799, email: [i.goodwin@massey.ac.nz](mailto:i.goodwin@massey.ac.nz)

<sup>e</sup>Institute of Criminology School of Social and Cultural Studies, Victoria University of Wellington, PO Box 600, Wellington 6140, New Zealand, tel. 0064 4 4636749, email: [fiona.hutton@vuw.ac.nz](mailto:fiona.hutton@vuw.ac.nz)

Corresponding author: Tim McCreanor

Word count: 5869

Supported by the Marsden Fund Council from Government funding, administered by the Royal Society of New Zealand (contract MAU0911)

## **Abstract**

Alcohol consumption and heavy drinking in young adults have been key concerns for public health. Alcohol marketing is an important factor in contributing to negative outcomes. The rapid growth in the use of new social networking technologies raises new issues regarding alcohol marketing, as well as potential impacts on alcohol cultures more generally. Young people, for example, routinely tell and re-tell drinking stories online, share images depicting drinking, and are exposed to often intensive and novel forms of alcohol marketing. In this paper we critically review the research literature on a) social networking technologies and alcohol marketing and b) online alcohol content on social networks, and then consider implications for public health knowledge and research. We conclude that social networking systems are positive and pleasurable for young people, but are likely to contribute to pro-alcohol environments and encourage drinking. However currently research is preliminary and descriptive, and we need innovative methods and detailed in-depth studies to gain greater understanding of young people's mediated drinking cultures and commercial alcohol promotion.

**Keywords:** alcohol; young people; social networking sites; drinking; alcohol marketing

## **Introduction**

Problems arising from alcohol use are a key concern for public health because these are very common, preventable harms constituted of a mix of acute and chronic health and social problems. Short term damage includes alcohol poisoning, accidents, violence and absenteeism; longer term issues include heart, liver and brain damage, cancers, diabetes, dementia and addiction (Babor *et al.* 2010). Alcohol accounts for 4.6% of the global burden of disease and a third of this falls within the age range 15-29 years (Rehm *et al.* 2009).

Drinking among young people receives much public health attention, perhaps unsurprisingly given their importance to social futures and the widespread understanding that despite its attractions, alcohol is particularly problematic in youth cultures (Gordon *et al.* 2012; Järvinen and Room 2007). Many young people are involved in normalised practices around heavy drinking, which they view as pleasurable and sociable (Brown and Gregg 2012; Lyons and Willott 2008; Szmigin *et al.* 2007; McCreanor *et al.* 2008; Hutton 2012). Globally, young people and adolescents show higher frequencies of such drinking and of drinking to intoxication than adults (Babor *et al.* 2010). As Huckle *et al.* (2012) point out, younger people are more likely to be heavier drinkers within developed countries which have liberalised alcohol policy environments enhancing young people's access to alcohol (Chikritzhs *et al.* 2010; Huckle *et al.* 2012; Measham and Brain 2005). The commodification of pleasure (Measham 2004) within commercialised packages facilitated by pro-alcohol regulatory changes, sophisticated marketing and the physical infrastructures of the night time economy (Griffin *et al.* 2009; Hadfield 2006; Hollands and Chatterton 2003) have all played significant roles in these developments. These environmental configurations along with the drinking behaviours and practices they support, have been termed 'cultures of intoxication'

(Measham 2006), ‘alcogenic environments’ (Huckle *et al.* 2008) and ‘intoxigenic environments’ (McCreanor *et al.* 2008).

Among the factors contributing to the harms, alcohol marketing to young people is seen as an important issue (Austin and Rich 2001; Babor *et al.* 2010; Casswell and Zhang 1998; Gordon *et al.* 2010; Center on Alcohol Marketing and Youth 2008; McCreanor *et al.* 2008; Mosher 2012; Smith and Foxcroft 2009). Babor and colleagues reviewed the international evidence on the role of marketing and concluded that despite the complexities of establishing causality...“alcohol advertising increases the likelihood that young people will start to use alcohol and will drink more if they are already using alcohol” (Babor *et al.* 2010, p.189). This focus on marketing as a key feature of the intoxicigenic environments that influence drinking behaviour is strongly consistent with the public health orientation to ‘look upstream’ for the determinants, mechanisms and therefore potential prevention, of problems.

In this context new concerns arise with the rapid growth in the use of new social networking technologies – internet, social networking sites (SNS), mobile phones and similar devices (Williams 2008). Young adults have flocked to SNS which are seen as enjoyable, practical domains for everyday social interactions. The penetration of SNS uptake and the metadata extracted from user-generated content converge with what Beer (2009) has referred to as “power through the algorithm”. In this understanding, the democratising impetus of user control is tangential to the fundamental economic basis upon which SNS operate. Site owners make substantial profits whether through the online traffic of liberation movements, routine socialising or the accessing of commercially branded products and services, by selling user-data and advertising space to commercial interests. Although SNS provide user benefits from the pleasures of creation and sharing of content meaningful to them, the commercial relations

inherent to these “self-empowering” practices are often obscured and have been given relatively little critical or analytic attention within public health research. SNS are quintessentially commercial platforms (Goodwin 2011) and provide new vehicles for alcohol marketing with a focus on interactivity, virtual relationships and mundane interface with consumers (Nicholls 2012). In this paper we describe the nature of SNS and their widespread uptake, and then critically review the current research literature on (a) their use in alcohol marketing and (b) their influences within young people’s increasingly mediated drinking cultures. We then consider the implications of our current knowledge for critical public health praxis around alcohol and harm, and suggest directions for future research.

### **Social networking systems: Uptake, key features, and potentials for marketing**

The uptake of SNS internationally reflects high levels of use by young people. For example, in the USA in 2008, 94-98% of US university students were found to engage in daily use of SNS (Buffardi and Campbell 2008; Lewis *et al.* 2008). In New Zealand, SNS participation across the population increased from 28% to 48% between 2007 and 2009 (Bell *et al.* 2010), with 12-19 year olds rating SNS use as being very important for their daily lives (Smith *et al.* 2010). Scholars have argued that for young people, SNS provide a space that is not constrained by existing social and structural barriers (boyd and Ellison 2007; Livingstone 2008).

Several key features distinguish SNS from other communications systems. Firstly, they blur or remove boundaries between public/private spaces (Papacharissi 2009), private identity/public persona and user/consumer (Hearn 2008). Secondly, they are often seen as online extensions of face-to-face relationships (Williams 2008; boyd and Ellison 2007). Thirdly, they are ‘sticky’; that is, users visit them frequently (Hearn 2008; Rosen 2006), and

fourthly, graphic images (photographs, video) are significant elements (Williams 2008) and continuously rejuvenated (Papacharissi 2009), functioning to visually privilege social connections and offline socialising (Livingstone 2008). Research suggests that young people “are living life online and in public via these sites” (Subrahmanyam and Greenfield 2008, p.417) and they are integral to identity, relationships and lifestyles (Livingstone 2008; boyd 2007). We argue that each of these features can be seen as contributing to the commercial potential of SNS by bringing the producer and consumer into ever closer proximity with increasing frequency and subtlety.

The intensive uptake of SNS by young people can be understood in relation to recent social and cultural shifts. Social theorists have argued that discourses of individual freedom, self-expression and authenticity entail biographical projects of self-realisation in a society in which people appear to have 'free' choice to act, develop and achieve as individuals with little regard for wider consequences (Giddens 1991; Rose 1989). A globalised culture of celebrity, self-commodification and consumption, is a key outcome of this shift (Duits and van Romondt Vis 2009) leaving young people in particular highly sensitised to consumption-driven self-improvement (Hopkins 2002). SNS are cultural forms that encourage and support crafting of an ‘authentic’ but mobile subjectivity – enacting one’s own celebrity brand (Hearn 2008) – despite the contradictions with neoliberal social orders in which individuals are supposed to have a stable, resilient core identity (Walkerdine 2003). These characteristics of SNS have been welcomed within marketing as offering new horizons that move beyond niche targeting to direct sales based on relationships with individuals tailored to their co-created needs (Tapscott 2009; Venkatesh 1999; Viser 1999).

These developments have been critiqued by some social scientists. For example, Fuchs (2010) provides a neo-Marxist analysis of the political economy of SNS (including Facebook), grafting contemporary theorising onto key concepts such as “surplus value”. Within SNS, surplus value is produced by members engaging in the myriad mundane transactions of producing and moving information in cyberspace. These vast data flows constitute a new “virtual commons”, which like the material, social and cultural public goods in earlier eras, is available for free exploitation by capitalist ventures. This means that as site owners collect detailed data on the needs, desires, preferences, choices and interests of SNS users, they have a valuable information resource, one which is analysed via increasingly sophisticated dataminers such as Wildfire, Social Mention and Blog Pulse (Socialbrite 2011). Online interaction is reframed as a form of “immaterial labour” (Cote and Pybus 2007; Hardt and Negri 2004) carried out by users of SNS that can be “exploited by capital, which appropriates the commons for free and subsumes it under capital in order to gain profit” (Fuchs 2010, p.193). The surplus value produced by this labour is realised through site owners charging third party marketers and other commercial interests for access to SNS user data.

Bucher (2012) has critically explored Facebook software by investigating the architectures that underlie Facebook’s commercial model. She highlights that the technology is not simply passively mining user data but actively shaping patterns of engagement. The EdgeRank algorithm, which structures how information comes through Facebook’s ‘News Feed’, produces particular forms of participation. Frequent input by the user is rewarded with a normative “visibility” that relates in various ways to “popularity”, both of which are key assets for the branded self (Hearn 2008). Additionally, sharing, tagging and commenting on photos are heavily weighted and also rewarded in this system. Thus, Bucher concludes that:



“While Facebook is certainly a space that allows for participation, the software suggests that some forms of participation are more desirable than others.” (p13).

Facebook is the dominant SNS, achieving its goal of a billion members worldwide in late 2012 (Kiss 2012) and reports that 50% of members use its facilities daily or more frequently (Facebook 2011). Massive corporate investment (Craig and Sorkin 2011) and stock market listing continues to grow the capacity, capability and influence of the system, despite disappointment over share prices. Facebook seems to have enclosed the virtual commons and extracts serious profits from this public resource with little public accountability or restraint.

While there may be social benefits from competition, reduced supply costs and other efficiencies arising from these developments, the implications in the domain of health compromising-commodities such as alcohol need urgent consideration. We suggest that the new departure for public health alcohol research lies in the unprecedented detail and reach of information on SNS users, the keystroke by keystroke analysis of personal ‘phenotypes’ (and possibly deeper structures) now available. The potential application of such data to targeted alcohol marketing seems to be encouraging alcohol producers and sellers to rapidly embrace SNS as a new marketing tool. Relating perhaps to the fading boundaries between public and private space referred to above, one of the key features of the domain is a certain elision of commercial marketing with user-generated content that also/incidentally promotes alcohol and drinking. However, most previous research has considered these areas separately, so in the following sections we provide an overview of first, research regarding SNS and the marketing of alcohol, second, user-generated alcohol content on SNS, and third, the implications of this research for public health.

## **SNS and commercial marketing**

Research into the role of SNS in alcohol marketing and promotion is in an exploratory stage with methods primarily adapted from conventional qualitative and descriptive approaches used in efforts to understand the parameters of the field. Mart et al. (2009) examined Facebook advertisements, pages, applications events and groups, and reported alcohol-related content. In terms of clearly commercial content they found 93 pages with more than 1 million ‘friends’ for top beer brands and 334 pages for top spirit brands with more than 3 million ‘friends’. Further, over 500 applications were identified that enabled a range of activities such as texting a drink to a friend, building ‘shot’ collections and learning specific drink recipes. Facebook ‘events’ categories showed even greater levels of activities, with more than 2000 drinking activities each for both beers and spirits including “Smirnoff Saturdays”, “Captain Morgan Tour” and “Budweiser Keg Party”, all involving cut-price drinks and alcohol-focussed entertainments. Such findings indicate the magnitude of the issue for public health, and how SNS may play a major role in maintaining pro-alcohol environments. Research has not yet addressed the sorts of impacts these diverse forms of SNS-based promotion are having in young people’s drinking practices and cultures.

A study of SNS marketing among leading UK alcohol brands found that they employed a range of strategies, including competitions, interactive games and real world events (Nicholls 2012). Key features included the blurring of user-generated material and brand promotion (for example, fan photos mixed in with official images), integrating real-world and online activity, and encouragement to drink on particular occasions. These are catalysed through what Nicholls (2012) refers to as a “branded conversation-stimulus” – in Tweets, wall posts and brand statements that work to normalise alcohol within both banal and special occasions

in the everyday lives of SNS users. Nicholls concluded that social media allow alcohol marketers “to embed brand-related activities in the routines of social media engagement for large numbers of people, and to use social media to encourage a more routine approach to alcohol consumption” (p.4).

Mosher (2012) provided a detailed case study of the way in which Diageo (a major alcohol corporate) changed the brand profile (and consumption) of its Smirnoff products among young people. His research demonstrated a complex play of corporate competition, exploitation of policy loopholes and illicit marketing to underage people using digital vectors including SNS, allowing Diageo to make radical inroads into youth markets for spirit-based drinks. Since 2010 Diageo has projected 21% of its advertising budget into digital forms such as SNS and YouTube, and Mosher points out that “this form of marketing is largely unregulated and has a high likelihood of reaching underage youths” (p.59).

Diageo has also signed a marketing deal with Facebook that is likely to be highly effective in maintaining “the alcohol-fuelled culture promoted by user-generated activity in Smirnoff Night Life Exchange” (Bonner and Gilmore 2012, p.2). This is a prime example of what Evans (2012) refers to as *Nuit Blanche* events; globally networked night-time festivals often sponsored by alcohol or tobacco corporates and rigorously woven into their commercially-driven marketing campaigns, especially via engaging, viral promotions in SNS.

We read these findings as evidence for the beginnings of a trend in commercial alcohol marketing in which social media can be conceptualised as adding to the reach, speed and efficiency with which pro-alcohol messages are spread and entrenched as norms and practices among peer-groups. Nevertheless, the existing research highlights a growing importance of SNS in alcohol marketing practices and we concur with comments from the Australian

Medical Association (2012) and Jernigan (2012) to the effect that the “online alcohol marketplace” is an important new field for public health. Such activities are currently under-explored by researchers and policymakers and further work is required to identify impacts on young people’s drinking practices.

### **SNS user-generated content on alcohol and drinking**

The importance of peer influence on youth substance use is well-understood (Clark and Loheac 2007; Lundborg 2006; Norton *et al.* 1998), and studies have begun to quantify such effects. For example drawing on US National Longitudinal Study of Adolescent Health data from 90,000 young people (grades 7-12), Ali and Dwyer (2010) found that an increase of 10% in peers who drink increases the likelihood of individual drinking and frequency by 4% (controlling for demographic differences). Given that many young people have actively integrated SNS into their lives, this technology is likely to enhance such influences. Another US survey of teens’ and parents’ attitudes regarding substance abuse found that the 70% of respondents in their sample who were daily SNS users were three times more likely to use alcohol than others (NCASA 2011).

Other studies have demonstrated the pervasiveness of content about drinking within user-generated material on SNS, especially among tertiary students. In the USA Facebook posts about intoxication on the personal profiles of 224 university students were positively related to AUDIT scores of ‘problem drinking’. High rates of posts about intoxication were related to significantly higher AUDIT scores and greater likelihood of reporting alcohol-related injury (Moreno *et al.* 2012). Similarly, Australian university students’ Facebook profiles with greater numbers of alcohol-related self-presentation images – profile photographs, alcohol-

related text and so on – signifying ‘alcohol identities’, correlated positively with measures of alcohol consumption and problem drinking (Ridout *et al.* 2011).

In New Zealand, Bebo profiles of 16-18 year olds revealed high levels of content about drinking with photos and comments representing intoxicated behaviour and heavy alcohol consumption, creating an online “intoxigenic social identity” (Griffiths and Casswell 2010). Other research suggests that young adults willingly display inebriated behaviour on SNS (Morgan *et al.* 2010) and share their drinking stories online, often using digital images (Skinstad 2008; Tonks 2012); this occurs across demographically diverse adolescent communities (Moreno *et al.* 2010). Such contexts are enhanced through the high frequency of images, posts, texts, and Tweets about drinking generated by users (e.g., Ridout *et al.* 2011; Leyshon 2011). Some studies have focussed on user-generated materials that at least incidentally promote alcohol. For example, Mart *et al.* (2009) searched Facebook Groups using the keyword ‘alcohol’ gathering 58,000 hits, of which top beer brands and top spirit brands accounted for in excess of 5000 each; a further 342 groups had the term “Binge Drinkers” in their name.

In a study of young Australian working class women, Brown and Gregg (2012) found multiple pleasures and protections in the Facebook-mediated anticipation, organisation, display and narration of heavy drinking occasions. These included an important temporal element that spread the experience across pre- and post-event “spaces and times following the singular ‘night out’, counteracting the banality of everyday life” (p363) deepening understandings of user engagement at the convergence of SNS and heavy drinking. In a crossover between user and commercially generated material, a UK study has also demonstrated that both official and unofficial alcohol marketing materials were a regular part of young people’s SNS experience (Atkinson *et al.* 2011).

The research reviewed here suggests that SNS user-generated content around alcohol, with all its attractions, pleasures and utility, is playing a role in normalising drinking within young people’s lives and cultural worlds, contributing to intoxicogenic environments. We could find no research reports on possible covert roles of industry (as found in the case of tobacco) in fostering such activity, so this remains as a potential avenue for future work.

### **A public health perspective**

Taken together these findings suggest an escalation of alcohol marketing and user-generated activity that for some groups of young people, means their SNS use may be saturated with alcohol and drinking-related content. What might this mean for public health approaches committed to the reduction of population-level alcohol-related harm? Public health relies on policy and regulation as the most effective ways of reducing the negative impacts of alcohol through decreasing population-level consumption and encouraging harm-reduction in high risk drinking contexts (Babor *et al.* 2010). However a key feature of SNS is that they are

effectively beyond the domain of public authority, essentially unregulated and possibly uncontrollable (Nicholls 2012). They are located within macro-social and economic processes that rely on the resale of the immaterial labour of the masses to commercial interests and may be seen as delivering the ‘holy grail’ of marketing – naturalised one-to-one, brand relationships with consumers and (electronic) ‘word of mouth’ promotion. In the context of mediated youth drinking cultures, SNS appear to be increasingly important pathways in which the objectives of alcohol marketing are being brought to bear on drinking behaviours with unknown effects. These profit-driven enterprises seem able to pursue their interests regardless of the public good impacts, without significant consequences. In the tobacco field, branded sites within SNS are outlawed under the Framework Convention on Tobacco Control but industry has supported unofficial marketing activities within Facebook (Freeman and Chapman 2010), highlighting some of the challenges involved in regulating this domain.

While SNS use appears to show problematic associations with alcohol it has simultaneously presented the world with multiple examples of mass transformative effects. These media are at work in high profile world events such as the ‘Arab Spring’, youth riots and the ‘99%’ movement where they and other communications systems are crucial to mobilising, organising and expressing a range of disaffections and challenges to entrenched social, economic and political orders. In the alcohol harm reduction field early evaluations (Hamley and Carah 2012; VicHealth 2012) of innovations in Australia and New Zealand such as “Hello Sunday Morning” (<http://hellosundaymorning.com.au>), “FebFast” (<http://febfast.org.nz/>) and “Dry July” (<http://www.dryjuly.com/>) signal the potential of health promotion approaches utilising multimedia channels including blogging, SNS, YouTube, and youth radio to offer support and resources to young people to change their

drinking practices and cultures. Such possibilities need to be approached with caution particularly given the fundamental commercial orientation of SNS. As Nicholls (2012) reminds us, social marketing campaigns trying to de-normalise alcohol consumption do so in a deregulated environment that is saturated with alcohol marketing determined to achieve the opposite effect. He highlights the challenge for public health campaigns which would need to overcome many barriers to become embedded in SNS users' daily lives in a seamless and effective manner.

## **Conclusions**

The rise of SNS is changing the way humans identify, relate and communicate in profound, uncharted and poorly understood ways (Subrahmanyam and Greenfield 2008) with both positive and negative consequences for the health and wellbeing of populations. With the rapidly rising levels of commercial investment alongside the speed of technological change, they represent a complex environment within which young people's drinking cultures are constructed. They introduce novel benefits and risks for young people, blur distinctions between public and private space, mediate identity performances and enhance relationships with commercial interests. SNS-based alcohol marketing can be viewed as located at the specific intersection between the construction of young adults' identities within hegemonic neoliberal society, commercially-driven youth drinking cultures and the unprecedented uptake of social networking systems among young people. Harm reduction has long struggled with interventions in drinking because of the tensions between its pleasures and the damage caused (Hutton 2012). High levels of alcohol-related material on SNS posted by users, and frequent, ongoing engagement with such materials by large audiences intensifies norms of intoxication and entrenches intoxicogenic environments. Furthermore, SNS structures prioritise



such activities while alcohol marketing processes operate at both explicit and more covert levels.

Green (2006) makes a strong case for ‘critical public health’ remaining in the uncomfortable margins of the public health arena, constantly pushing the envelope for inclusion of neglected and emerging preventable health disparities in the pursuit of health equity (CSDH 2007).

SNS are a prime example of a developing edge of the public health battle to reduce alcohol-related harm but the research is sparse. We need innovative methods and in-depth, systematic research to examine whether SNS is changing the dynamics of alcohol cultures in significant ways, the impacts of alcohol marketing in this context, and the ways in which the platforms are shaping young people’s alcohol use. At present there are major gaps in our understandings of the dynamics of online alcohol marketing, its impacts on drinking practices, the effects of evasion of regulation, influence on pro-alcohol posts from users, associations with consumption and links with harms. Such descriptive work will take us some distance but of even greater importance will be the ethnographic and ‘insider’ qualitative research that helps us understand the meanings, pleasures, rewards and pressures that fuel young people’s engagement at the nexus of alcohol and SNS (Brown and Gregg 2012; Griffin *et al.* 2009).

## **References**

Ali, M. and Dwyer, D., 2010. Social Network Effects in Alcohol Consumption among Adolescents. *Addictive Behaviors*, 35(4), 337-342.

AMA, 2012. *Alcohol Marketing and Young People: Time for a new policy agenda*. Kingston, ACT: Australian Medical Association.

- Atkinson, A., *et al.*, 2011. *Young people, alcohol and the media*. York: Joseph Rowntree Foundation.
- Austin, S. and Rich, M., 2001. Consumerism: its impact on the health of adolescents. *Adolescent Medicine*, 12(3), 389-409.
- Babor, T., *et al.*, 2010. *Alcohol: No Ordinary Commodity Research and Public Policy* 2nd ed. Oxford: Oxford University Press.
- Beer, D., 2009. Power through the algorithm? Participatory web cultures and the technological unconscious. *New Media & Society*, 11(6), 985-1002.
- Bell, A., *et al.*, 2010. *World Internet Project, The Internet in New Zealand 2007-2009*. Auckland: AUT Institute of Culture, Discourse and Communication.
- Bonner, L. and Gilmore, I., 2012. The UK Responsibility Deal and its implications for effective alcohol policy in the UK and internationally. *Addiction*, Early View, Article first published online: 15 May 2012, doi:10.1111/j.1360-0443.2012.03902.x.
- boyd, d., 2007. Why Youth (Heart) Social Network Sites: The Role of Networked Publics in Teenage Social Life. In: Buckingham, D. ed. *Youth, Identity, and Digital Media*. Cambridge: MIT Press, 119-142.
- boyd, d. and Ellison, N., 2007. Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230.
- Brown, R. and Gregg, M., 2012. The pedagogy of regret: Facebook, binge drinking and young women. *Continuum: Journal of Media & Cultural Studies*, 26(3), 357-369.
- Bucher, T., 2012. Want to be on the top? Algorithmic power and the threat of invisibility on Facebook. *New Media & Society*, published online 8 April. DOI: 10.1177/1461444812440159.
- Buffardi, L. and Campbell, W., 2008. Narcissism and social networking web sites. *Personality and Social Psychology Bulletin*, 34, 1303-1314.

- Casswell, S. and Zhang, J., 1998. Impact of liking for advertising and brand allegiance on drinking and alcohol-related aggression: A longitudinal study. *Addiction*, 93(8), 1209-1217.
- Center on Alcohol Marketing and Youth, 2008. *Youth Exposure to Alcohol Advertising on Television, 2001 to 2007*. Washington, DC.
- Chikritzhs, T., *et al.*, 2010. Per capita alcohol consumption in Australia: will the real trend please step forward? *Medical Journal of Australia*, 193(10), 594-597.
- Clark, A. and Loheac, Y., 2007. It wasn't me, it was them! Social influence in risky behavior by adolescents. *Journal of Health Economics*, 26(4), 763-784.
- Cote, M. and Pybus, J., 2007. Learning to immaterial labour 2.0: MySpace and social networks. *Ephemera*, 7(1), 88-106.
- Craig, S. and Sorkin, A., 2011. *Goldman Offering Clients a Chance to Invest in Facebook* [online]. New York Times. Available from: <http://dealbook.nytimes.com/2011/01/02/goldman-invests-in-facebook-at-50-billion-valuation/> [Accessed 10 January, 2011].
- CSDH, 2007. *Achieving health equity: From root causes to fair outcomes*. Geneva: Commission on Social Determinants of Health, IER/EQH, World Health Organization
- Duits, L. and van Romondt Vis, P., 2009. Girls make sense: Girls, celebrities and identities. *European Journal of Cultural Studies*, 12(1), 41-58.
- Evans, G., 2012. Hold back the night: Nuit Blanche and all-night events in capital cities. *Current Issues in Tourism*, 15(1-2), 35-49.
- Facebook, 2011. *Facebook statistics* [online]. Available from: <http://newsroom.fb.com/content/default.aspx?NewsAreaId=22> [Accessed 23 February, 2012].

- Freeman, B. and Chapman, S., 2010. British American Tobacco on Facebook: undermining article 13 of the global World Health Organization Framework Convention on Tobacco Control. *Tobacco Control*, 19, 1-9. doi:10.1136/tc.2009.032847.
- Fuchs, C., 2010. Labor in Informational Capitalism and on the Internet. *The Information Society*, 26(3), 179-196.
- Giddens, A., 1991. *Modernity and self-identity. Self and society in the late modern age*. Cambridge: Polity.
- Goodwin, I., 2011. Power to the people? Web 2.0, Facebook, and DIY Cultural Citizenship in Aotearoa New Zealand. *New Zealand Journal of Media Studies*, 12(2), 110-134.
- Gordon, R., Hastings, G. and Moodie, C., 2010. Alcohol marketing and young people's drinking: what the evidence base suggests for policy. *Journal of Public Affairs*, 10, 88-101.
- Gordon, R., Heim, D. and MacAskill, S., 2012. Rethinking drinking cultures: A review of drinking cultures and a reconstructed dimensional approach. *Public Health*, 126(1), 3-11.
- Green, J., 2006. What role for critical public health? *Critical Public Health*, 16(3), 171-173.
- Griffin, C., *et al.*, 2009. 'Every Time I Do It I Absolutely Annihilate Myself': Loss of (self-)consciousness and loss of memory in young people's drinking narratives. *Sociology*, 43(3), 457-476.
- Griffiths, R. and Casswell, S., 2010. Intoxigenic Digital Spaces? Youth, Social Networking Sites and Alcohol Marketing. *Drug & Alcohol Review*, 29, 525-530.
- Hadfield, P., 2006. *Bar wars: Contesting the night in contemporary British cities*. Oxford: Oxford University Press.

- Hamley, B. and Carah, N., 2012. *One Sunday morning at a time: Evaluating Hello Sunday Morning*. Foundation for Alcohol Research and Education. Available from <http://www.scribd.com/doc/97490599/HSM-Evaluation-Final>.
- Hardt, M. and Negri, A., 2004. *Multitude: War and democracy in the age of empire*. London: Penguin.
- Hearn, A., 2008. 'Meat, mask, burden': Probing the contours of the branded self. *Journal of Consumer Culture*, 8(2), 197-217.
- Hollands, R. and Chatterton, P., 2003. Producing nightlife in the new urban entertainment economy: Corporatisation, branding and market segmentation. *International Journal of Urban and Regional Research*, 27(2), 361-385.
- Hopkins, S., 2002. *Girl heroes: The new force in popular culture*. Annandale: Pluto Press.
- Huckle, T., et al., 2008. Density of alcohol outlets and teenage drinking: living in an alcogenic environment is associated with higher consumption in a metropolitan setting. *Addiction*, 103, 1614-1621.
- Huckle, T., Pledger, M. and Casswell, S., 2012. Increases in typical quantities consumed and alcohol-related problems during a decade of liberalising alcohol policy. *Journal of Studies on Alcohol and Drugs*, 73(1), 53-62.
- Hutton, F., 2012. Harm Reduction, Students and Pleasure: An examination of student responses to a binge drinking campaign. *International Journal of Drug Policy*, 23, 229-235.
- Järvinen, M. and Room, R., eds., 2007. *Youth drinking cultures. European experiences*. Aldershot: Ashgate.
- Jernigan, D., 2012. Who Is Minding the Virtual Alcohol Store? *Archives of Paediatric and Adolescent Medicine*, 166(9), 866-868, doi:810.1001/archpediatrics.2012.1608.

- Kiss, J., 2012. *Facebook hits 1 billion users a month* [online]. The Guardian, 4 October.
- Available from: <http://www.guardian.co.uk/technology/2012/oct/04/facebook-hits-billion-users-a-month> [Accessed 25 October, 2012].
- Lewis, K., Kaufman, J. and Christakis, N., 2008. The Taste for Privacy: An Analysis of College Student Privacy Settings in an Online Social Network. *Journal of Computer Mediated Communication*, 14, 79-100.
- Leyshon, M., 2011. *New Media, New Problem? Alcohol, Young People and the Internet*. London: Alcohol Concern.
- Livingstone, S., 2008. Taking risky opportunities in youthful content creation: Teenagers' use of SNSs for intimacy, privacy and self-expression. *New Media and Society*, 10(3), 393-411.
- Lundborg, P., 2006. Having the wrong friends? Peer effects in adolescent substance use. *Journal of Health Economics*, 25, 214-233.
- Lyons, A. and Willott, S., 2008. Alcohol consumption, gender identities and women's changing social positions. *Sex Roles*, 59, 694-712.
- Mart, S., Mergendoller, J. and Simon, M., 2009. Alcohol promotion on facebook. *Journal of Global Drug Policy and Practice* [online], 3 (3). Available from: <http://globaldrugpolicy.org/3/3/1.php> [Accessed 28 January 2011].
- McCreanor, T., *et al.*, 2008. Creating intoxicogenic environments: Marketing alcohol to young people in Aotearoa New Zealand *Social Science & Medicine*, 67(6), 938-946.
- Measham, F., 2004. The decline of ecstasy, the rise of 'binge' drinking and the persistence of pleasure. *Probation Journal*, 5(4), 309-326.
- Measham, F., 2006. The new policy mix: alcohol, harm minimisation, and determined drunkenness in contemporary society. *International Journal of Drug Policy*, 17(4), 258-268.

- Measham, F. and Brain, K., 2005. 'Binge' drinking, British alcohol policy and the new culture of intoxication. *Crime, Media and Culture*, 1(3), 262-283.
- Moreno, M., *et al.*, 2010. An evaluation of the distribution of sexual references among "Top 8" MySpace friends. *Journal of Adolescent Health*, 47(4), 418-420.
- Moreno, M., *et al.*, 2012. Associations Between Displayed Alcohol References on Facebook and Problem Drinking Among College Students. *Archives of Paediatric and Adolescent Medicine*, 166(2), 157-163.
- Morgan, E., Snelson, C. and Elison-Bowers, P., 2010. Image and video disclosure of substance use on social media websites. *Computers in Human Behavior*, 26, 1405-1411.
- Mosher, J., 2012. Joe Camel in a Bottle: Diageo, the Smirnoff Brand, and the Transformation of the Youth Alcohol Market. *American Journal of Public Health*, 102(1), 56-63.
- NCASA, 2011. *National Survey of American Attitudes on Substance Abuse XVI: Teens and Parents*. National Center on Addiction and Substance Abuse, Columbia University.
- Nicholls, J., 2012. Everyday, Everywhere: Alcohol Marketing and Social Media—Current Trends. *Alcohol and Alcoholism*, First published online: April 23, 2012 doi: 10.1093/alcalc/ags1043.
- Norton, E., Lindrooth, R. and Ennett, S., 1998. Controlling for the endogeneity of peer substance use on adolescent alcohol and tobacco use. *Health Economics*, 7, 439-453.
- Papacharissi, Z., 2009. The virtual geographies of social networks: A comparative analysis of Facebook, LinkedIn and ASmallWorld. *New Media and Society*, 11(1&2), 199-220.
- Rehm, J., *et al.*, 2009. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *Lancet*, 373(9682), 2223-2233.

- Ridout, B., Campbell, A. and Ellis, L., 2011. 'Off your Face(book)': Alcohol in online social identity construction and its relation to problem drinking in university students. *Drug and Alcohol Review*, 31(1), 20-26.
- Rose, N., 1989. *Governing the Soul. The Shaping of the Private Self*. London: Routledge.
- Rosen, L., 2006. *Adolescents in MySpace: identity formation, friendship and sexual predators* [online]. Dr. Larry D. Rosen. Available from: <http://www.csudh.edu/psych/lrosen.htm> [Accessed 8 May 2009].
- Skinstad, M., Facebook: A digital network of friends. ed. *24th Conference of the Nordic Sociological Association, University of Aarhus, 14-17 August, 2008*.
- Smith, L. and Foxcroft, D., 2009. The Effect of Alcohol Advertising and Marketing on Drinking Behaviour in Young People: A Systematic Review. *BMC Public Health*, 9(51).
- Smith, P., et al., 2010. *World Internet Project, The Internet in New Zealand 2009*. Auckland: AUT Institute of Culture, Discourse and Communication.
- Socialbrite, 2011. *20 free, awesome social media monitoring tools* [online]. Available from: <http://www.socialbrite.org/2011/01/11/guide-to-free-social-media-monitoring-tools/> [Accessed 1 November 2011].
- Subrahmanyam, K. and Greenfield, P., 2008. Virtual worlds in development: Implications of social networking sites. *Journal of APplied Developmental Psychology*, 29, 417-419.
- Szmigin, I., et al., 2007. Re-framing 'binge drinking' as calculated hedonism—Empirical evidence from the UK. *International Journal of Drug Policy*, doi:10.1016/j.drugpo.2007.08.009.
- Tapscott, D., 2009. *Grown Up Digital*. New York: McGraw-Hill.



- Tonks, A., 2012. *Photos on Facebook: An exploratory study of their role in the social lives and drinking experiences of New Zealand university students* Unpublished Masters thesis. Massey University.
- Venkatesh, A., 1999. Postmodernism perspectives for macromarketing: an inquiry into the global information and sign economy. *Journal of Macromarketing*, 19(2), 153-169.
- VicHealth, 2012. *Evaluation of the impact of febfast participation. Final report*. Carlton, Australia: Victorian Health Promotion Foundation.
- Viser, V., 1999. Geist for sale: a neoconsciousness turn through advertising in contemporary consumer culture. *Dialectical Anthropology*, 24(1), 107-124.
- Walkerdine, V., 2003. Reclassifying Upward Mobility: femininity and the neo-liberal subject. *Gender and Education*, 15(3), 237-248.
- Williams, B., 2008. "What South Park character are you?": Popular culture, literacy and online performances of identity. *Computers and Composition*, 25, 24-39.