Regulating the Digital Marketing of Alcohol: Exploring Evidence-based Policy Options

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(I) Introduction

Alcohol advertising is a key driver of alcohol consumption, particularly among young people. With the advent of marketing via social media and other online platforms, this risk has compounded, as exposure to alcohol-related marketing is now a part of our everyday visual culture – not just in the "real world", but also whenever we are browsing online. Digital representations and advertisements of alcohol are no longer exclusively vectored through traditional advertising or mass media vehicles (e.g., product placement in film or television), but also through a new frontier of images of drinking cultures posted by consumers, influencers and brands in social media. This is problematic, as exposure to alcohol-related content online has been linked to increased alcohol consumption (Noel et al., 2020). It has further been demonstrated to contribute to the familiarisation and normalisation of drinking for users (Nicholls, 2012), the increase of cultural acceptance of drinking and pro-alcohol expectations, and a decrease in perceptions of the negative consequences associated with drunkenness and risky drinking (Dobson, 2012; Roche et al., 2009).

Marketing on social media and other digital platforms (e.g., YouTube, Google etc.) poses new and distinct regulatory challenges. Online marketing strategies are less publicly visible, more targeted, and often deploy subtle strategies, such as the use of funded influencers and the promotion of user-generated content (see Carah & Brodmerkel, 2021). These strategies render the monitoring and regulation of online advertising difficult. Globally, the regulation of online marketing significantly lags regulation of traditional marketing (e.g., print, television, cinema etc.). For instance, WHO (2018) reports that while most countries have some form of regulation for traditional alcohol marketing, almost half have no regulations in place for internet (48%) and social media (47%) marketing. Given the potentially adverse impact of uninhibited alcohol marketing – particularly on young individuals – regulating such advertising in online spheres has become an emerging health priority.

This report seeks to explore policy options for the regulation of digital alcohol advertising, as well as the effectiveness of these strategies in reducing alcohol consumption and associated adverse outcomes. As there is a limited evidence base directly pertaining to online alcohol marketing regulation, given the recent emergence of this issue, the report considers discussions and findings on policy options for regulating and limiting alcohol advertising and promotion in general, with attention to the potential applicability of these studies to the digital sphere. Measures considered include total bans on alcohol advertising; content and volume restrictions; restrictions on the timing or placement of advertising; counter-advertising; disallowance of tax deductions for alcohol marketing costs; and restrictions on the use in marketing of personal information and data. For each of these subtopics, the nature and recent history of use of the measure is discussed on the basis of available literature, and what evidence there is on the measure's effects and conditions of its effectiveness. Since the research literature in this area is not well developed, we consider case studies as well as any evidence from formal policy impact studies.

In considering the evidence on the effects and effectiveness of restrictions on alcohol marketing, the potential mechanisms of an effect should be kept in mind. Some effects could be quick: that an advertisement gives a potential consumer the idea of trying this new kind of alcoholic drink being advertised, or suggests a slight expansion of when alcoholic drinks might be appropriately served. But there are also potential effects in the much longer term: advertising of alcoholic drinks in connection with central and recurrent features of the culture – sports events in

Australia, for instance -- can influence general norms on what is acceptable and indeed "natural" in particular situations, and indeed in the culture as a whole (Room et al., 2019). But changes in the drinking culture are likely to take much longer – as long as a generation or more (Room, 2010). The studies of the effects of restrictions on advertising are typically measuring only relatively short-term effects – in part because the restrictions being measured and the literature assessing their effects are both mostly relatively recent, and in part because it is difficult to measure the longer-term impact of a particular measure, partialling out all other possible influences. The research on the effects of restrictions on alcohol marketing discussed below is thus measuring only the short-term effects, leaving open the question of longer-term effects on the drinking culture.

(II) Policy Options and Supporting Evidence/Efficacy

(1) Total Bans on Advertising

The World Health Organisation (WHO) argues that placing restrictions on alcohol advertising is one of the most important and effective strategies for reducing alcohol-related harm (WHO, 2018). Further, given the difficulties discussed in sections (2), (3) and (5) with partial bans and restrictions, totally banning alcohol advertising is arguably the most effective approach.

A total ban on alcohol advertising theoretically entails the prohibition of alcohol marketing on all media types and in all forms. However, total bans in this absolute sense are rare (see WHO, 2018). Instead, total bans usually apply to specific media and/or have some exemptions (cf. the Lithuanian policy, discussed below), may inadequately capture all media—and besides, are often circumvented. Thus, in presenting literature on total bans, it is important to note that very few studies have assessed the effect of comprehensive bans; instead, they analyse the effect of bans on particular media platforms (e.g., TV or radio). In such circumstances, the most likely sequel is that an alcohol company's advertising budget remains intact, and the advertising or other promotion simply proceeds in other media.

Indirect evidence of effectiveness

While direct evidence of the effectiveness of a total ban is limited, as discussed below, there is much relevant indirect evidence, in the form of a substantial body of literature which links exposure to alcohol advertising to increased alcohol consumption, alcohol related harm and the initiation of alcohol use among adolescents (Anderson et al., 2009; Stautz et al., 2016). More recently, this research has extended to assess the effect of digital alcohol marketing exposure on alcohol use, including hazardous and binge drinking (Noel, Sammartino & Rosenthal, 2020). These findings suggest that engagement with marketing online – such as targeted Facebook content, liking and sharing alcohol related content, etc. – is associated with increased consumption and risky drinking.

Indirect evidence supporting bans on alcohol advertising also comes from studies assessing the effect of alcohol advertising expenditure on alcohol consumption. For instance, a 10 percent increase in advertising expenditure leads to an estimated 0.3 percent increase in alcohol use (Booth et al., 2008; Burton et al., 2017; Gallet, 2007).

Evidence of effectiveness: natural experiments

There is some research to directly support the efficacy and cost-effectiveness of total advertising bans, and WHO has concluded that such bans would be a "best buy" for public health-orientated alcohol policy (Burton et al., 2016; WHO, 2017). Nonetheless, findings from the empirical research literature are mixed.

Most studies identified which assess the efficacy of total bans have not included a discussion of digital marketing. Some econometric evaluations of the effect of advertising bans on alcohol consumption per capita have found limited efficacy (see Saffer, 2020), although most of the cases studied are "total bans" only on particular sets of media. Also, these econometric evaluations utilizing population-level alcohol consumption are not able to identify differences within sub-groups of the population, and as such, may overlook some of the detrimental effects of alcohol marketing exposure, and in turn, the benefits of marketing restrictions (Petticrew et al., 2017). Similarly, there is evidence to suggest that some demographics – the young, less-educated, etc. – may be more affected than other cohorts by particular media, and notably by online alcohol marketing exposure (He, 2018).

Of the 123 countries assessed by the WHO (2018), "51 (41%) had total bans for all media types" (without digital media necessarily being included in the "media"). However, many of these countries (Muslim-majority countries in Asia and the Middle East) also prohibit alcohol, and thus, the relevance for the Australian context is limited. Unsurprisingly, total bans were least common for internet and social media (20% of countries) and most frequently applied to television and radio. In what follows, we provide some case studies from the available literature concerning 1) bans on digital alcohol marketing and 2) bans on traditional alcohol marketing with a view to drawing out any potential implications and/or lessons for regulation of the digital space.

Total Bans on digital marketing

1. *Lithuania*

Lithuania first implemented the Law on Alcohol Control[1] in 1995, which entailed a complete ban on alcohol advertising across radio, television, and print media, as well as indirect advertising (Miščikienė et al., 2020). In the following 20 years or so, there were several amendments to the law, with the revoking and reintroduction of advertising restrictions occurring multiple times (Paukštė et al., 2014, Miščikienė et al., 2020). For example, in 1997 and 2002, restrictions on alcohol advertising were eased (Štelemėkas et al., 2021). Then in 2008, a partial ban prohibiting marketing on television and radio during the daytime was implemented. It was not until 2018 that the Parliament of Lithuania amended the law[2] to institute a total ban on alcohol advertising across all media platforms (including digital media). There are some exemptions, such as the ability to display brand name, ethanol content, country of origin etc. on websites and at point of sale; however, they are minimal (Midttun, 2017). Midttun (2017) notes that "the main responsibility for tackling violations will rest with the Department for Drugs, Tobacco and Alcohol Control, who will be able to issue a mandatory decree for immediate removal of any advertising material, by way of a court order". Still, it is not

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[1] Parliament of the Republic of Lithuania, the Law on Alcohol Control, 18 April 1995, No I-857. Available online: https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.17752

[2] Parliament of the Republic of Lithuania. Amendments of the Law on Alcohol Control, 1 June 2017, No. XIII-394. Available online: https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/c89f8b324b5211e78869ae36ddd5784f.

entirely clear how extensively the Lithuanian government is monitoring digital advertisements and enforcing violations.

However, there are indications that the alcohol industry has made significant attempts to circumvent the ban, and that marketing (including on social media) may be continuing – albeit in a more subtle form. A blog post by Midttun (2018) from the *Lithuanian Tobacco and Alcohol Control Coalition* suggests that "alcohol marketing seems to have shifted towards internet-based activities and consumer generated content". Given the law does not seem to prohibit user-generated alcohol content, it may be that the alcohol industry has moved to utilize social influencers and other social media users to spread pro-alcohol messaging.

It was also noted that the alcohol industry has started producing and advertising non-alcoholic beverages with a brand and bottle similar to their alcohol brand. This "indirect advertising" is often an attempt to advertise alcohol brands without violating the regulations. Midttun (2018) also notes the "persistent narrative in the media" supported by alcohol industry lobbyists that the laws are ineffectual and should be revoked. Some of these challenges will be explored further below.

Effectiveness of the Lithuanian bans. A recent study by Štelemėkas and colleagues (2021) utilized interrupted time series analysis to assess the impact of several policy changes enacted by the Law on Alcohol Control on all-cause mortality. They found that neither the 2008 ban nor the 2018 ban had an immediate impact on all-cause mortality (Štelemėkas et al., 2021). Given the 2008 ban was partial and did not include digital marketing, the authors did not find it surprising that it did not have a large impact. However, they conclude that even if the 2018 ban did not have any immediate effect, it may well have longer-term effects on alcohol use and related harm (Štelemėkas et al., 2021; Rehm et al., 2021).

2. Norway

Norway has longstanding statutory regulations prohibiting the marketing of alcoholic beverages encapsulated in the Norwegian Alcohol Act (Lov om omsetning av alkoholholdig drikk m.v. 1989-06-02-27) (Decorte et al., 2019). The first iteration of the ban was implemented in July 1975, prohibiting the direct advertisement of beverages that contain more than 2.5% alcohol content (Rossow, 2021). In 1997, this was extended to include lower alcohol-content beverages if the same brand also sold products with more than 2.5% of alcohol (Rossow, 2021). As part of this suite of amendments, indirect advertising (e.g., advertising non-alcoholic beverages "with the same brand name, trademark or characteristics as alcohol beverages") was also prohibited (Stortinget, 2018 cited in Decorte et al., 2019). As such, advertising of non-alcoholic beverages is also subject to the ban if the same trademark is used. The ban is "media neutral" and thus encompasses all media; however, as discussed below, there are some exemptions and loopholes.

Of relevance to the regulation of digital marketing, the Act also prohibits implicit or explicit encouragement of the publishing of alcohol brands and products on social media and other websites (Decorte et al., 2019). Further, while "sober product and price information" is permitted on the websites of "manufacturers and wholesalers", posting such information on social media platforms is prohibited (Decorte et al., 2019). However, individuals who do not have a demonstrable link to the alcohol industry, or stand to gain financially, are free to discuss alcohol and related products online and in editorials.

While the Norwegian Directorate of Health is the regulatory body tasked with overseeing the marketing regulations, 'supervision and enforcement' is predominately the responsibility of local municipalities (Decorte et al., 2019). Municipalities have the authority to impose sanctions and request the removal of marketing materials. The Act grants the legal power to impose fines and revoke the licenses.

Evidence of the effectiveness of the ban in Norway. To our knowledge, there have been no studies specifically assessing the efficacy of the digital marketing components of the Norwegian ban on alcohol marketing. This makes it difficult to assess the efficacy of the legislation. Citing the Norwegian Directorate of Health (2020), Rossow (2021) notes that reported violations of the ban appear to occur often on social media, and highlights the difficulties associated with enforcement, especially the issue of distinguishing 'commercial advertising messages' from 'user-generated content'. In short, further research is required to determine how effectively violations of digital marketing are monitored, and where appropriate sanctioned. Further, there is some evidence to suggest that the ban has been circumvented through the use of foreign broadcasters and editorials.

Nonetheless, Rossow (2021) conducted an interrupted time series analysis assessing the impact of the implementation of the ban in 1975 on alcohol sales (i.e., a proxy for per capita alcohol consumption). It was estimated that the ban reduced total alcohol sales by approximately 7%. As described above, the studies by Nelson (2010) and Saffer and Dave (2002) included an analysis of the effect of the Norway ban as part of a pooled analysis assessing the effect of bans in multiple countries. Nelson (2010) did not find evidence to support any effect of the Norway ban on alcohol sales. In either case, such time series studies should be interpreted with caution. There are several reasons why it is difficult to establish causation with such time series approaches; crucially, it is difficult to account for other potential factors affecting the relationship (e.g., the co-occurrence of other alcohol control policies, shifts in unrecorded alcohol consumption, etc.)

In addition to these two case studies, there are other countries which have implemented bans on alcohol advertising, including on social media. However, there is scant literature describing either the substantive details or effectiveness of these policy measures. For instance, Iceland has enacted a comprehensive and statutory ban on alcohol advertising via the Law on alcohol (Áfengislög) and Law on Media 2011 (Lög um fjölmiðla) (European Centre for Monitoring Alcohol Marketing, 2018). Yet, little has been written about the legislation. Nonetheless, in what follows, we provide additional limited information on some of these bans with a focus on digital marketing.

3. Russian Federation and other former Soviet Union countries

A recent review (Neufeld et al., 2021) assessed alcohol control policy in 15 former Soviet Union countries. Neufeld and colleagues reported that comprehensive marketing bans (i.e., all media types) have been established in Kazakhstan, Turkmenistan and Uzbekistan, while 7 of the countries assessed (these 3 plus Kyrgyzstan, Lithuania, Russia and Tajikstan) had a ban on digital marketing (internet and social media advertising). There has been some discussion of alcohol marketing regulation in Russia (see, Neufeld et al., 2020). However, the extent to which the ban on digital marketing is effective, well-monitored and enforced, has been questioned. Russia's Federal

Law No. 38 "On the Advertisement"[3,4] was amended in 2012 to include provisions prohibiting alcohol advertising on the web and social media (Neufeld et al., 2020). However, Neufeld and colleagues (2020) note that while the ban on digital marketing is statutory, there are several issues which reduce its overall efficacy. First, while content on websites and social media are prohibited from encouraging alcohol use, sharing information about alcohol brands 'including special offers' is not considered advertising. Similarly, indirect advertising or 'surrogate advertising' (e.g., marketing non-alcoholic beverages), while prohibited, "is not very well enforced". Lastly, Russia has exemptions for the advertisement of domestic wine products on TV and radio, which likely offset the efficacy of online regulations.

At the time of writing, we are unaware of any substantive studies in English assessing the effectiveness of policies in former Soviet Union countries other than Lithuania and Russia.

Challenges and implications for policy

Anderson, Chisholm and Fuhr (2009) assess the cost-effectiveness of a comprehensive ban on alcohol advertising (i.e., assuming 95% coverage) in terms of reducing the extent of alcohol related harm. They conclude that a ban on alcohol marketing could be 'very cost-effective', providing it is 'fully enforced' – which is not possible with a self-regulatory approach (Anderson, Chisholm & Fuhr, 2009). A comprehensive advertising ban is estimated to cost US$500 per healthy life year gained in high-income countries (Chisholm et al., 2018, WHO, 2020).

A recurrent issue with the use of bans on alcohol marketing is the alcohol industry's ability to circumvent restrictions by substituting one platform of advertising for another (Anderson et al., 2009; Fortin & Rempel, 2007). Thus, partial restrictions tend not to be effective, or rather have a less than optimal effect, because alcohol advertising banned on one medium will be replaced by advertising on another (Fortin & Rempel, 2007). In the context of digital marketing, this is particularly relevant, given regulation in the online domain is significantly under-developed, compared with traditional media. For instance, one study (He, 2018) assessing the extent to which online alcohol advertising offset the efficacy of outdoor advertising restrictions in the US found a 31.4 percent, 32.4 percent and 52.5 percent reduction in the efficacy of these restrictions for beer, liquor and wine, respectively.

Methodological challenges. Despite a mountain of indirect evidence to suggest that alcohol exposure via marketing leads to increased alcohol consumption and harm, it has proven difficult to establish the efficacy of comprehensive bans empirically. Bans on advertising are often implemented at the same time as a suite of other alcohol control policies. Thus, it becomes difficult to disentangle the relative effect of bans compared to other measures. Also, as noted above, some of the effects of advertising bans might well be in the longer term, for instance in changes in the cultural position of alcohol drinking, and such longer-term effects are difficult to measure.

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[3] Consultant.ru. Federal'nyj zakon "o Reklame" ot 13.03.2006 n 38-fz (red. Ot 21.07.2011) [Federal Law "On Advertising" Dated 13 March 2006 n 38-fz (as Revised on 21 July 2011)]. Available online: http: //www.consultant.ru/document/cons_doc_LAW_58968/

[4] Consultant.ru. Federal'nyj Zakon "o Reklame" ot 13.03.2006 n 38-fz (red. Ot 28.07.2012) [Federal Law "On Advertising" Dated 13 March 2006 n 38-fz (as revised on 28 July 2012)]. Available online: http: //www.consultant.ru/document/cons_doc_LAW_58968/

While it is expected that the alcohol industry in general would seek to downplay the efficacy of any alcohol control policy that may curb profits, making a case for advertising bans becomes more difficult when the industry can point to studies that show no effect or are inconclusive. Thus, as Rehm, Stelemekas & Badaras (2019) note, it is important that further evaluations are conducted.

(2) Content Restrictions: Lessons from Restrictions on Traditional Media

Content-based restrictions provide limitations on what may be included in alcohol advertising, as well as the way in which alcohol may be portrayed. The aim is often to protect against marketing strategies which provide misleading or deceptive messaging about alcohol, and is often extended to include attractive but problematic messaging; for instance, restrictions on aspects of advertising which may be appealing to young people under the legal drinking age (e.g., the use of humour, celebrity endorsement, etc.). Content restrictions in the traditional marketing space have long sought to reduce the impact of alcohol advertising on young people, and these are among the most common content restrictions.

Content restrictions in various forms have been widely implemented – either in statutory form or through self-regulatory codes. Common examples of content restrictions are requirements to include of warning messages (e.g., "drink responsibly"; see section 4), restricting the advertising of certain beverages (especially spirits), and limitations on the portrayal of alcohol.

Content restrictions may also focus on limiting the scope of advertising strategies (e.g., prohibiting promotions, sponsorships, etc.). For example, Finland's policy in 2015 (described in section 3), in addition to placing stringent restrictions on both digital and traditional marketing, also prohibited any form of alcohol marketing that involves 'taking part in a game, lottery or contest' (Montonen & Tuominen, 2017).

Evidence on effectiveness of content restrictions

Cross-sectional surveys have been conducted which demonstrate an association between alcohol advertising, advertising regulation restrictiveness and alcohol consumption. Cook, Bond & Greenfield (2014) assessed the effect of alcohol advertising restrictions on consumption in 15 low- and middle-income countries using national survey data. Assessing beer, wine and spirits advertising, they created an aggregate measure of the strictness of advertising restrictions, ranging from 0 (no restrictions) to 3 (ban) for national TV, national radio, print media and billboards (Cook, Bond & Greenfield, 2014). Overall, more restrictive policies were associated with reduced alcohol consumption. While more severe restrictions on beer, wine and spirits advertising were associated with reduced consumption, the effect was largest for restrictions on beer advertising. Using a similar measure of alcohol marketing restrictiveness, Noel (2020) assessed the impact of the strength of alcohol marketing regulations in 13 Latin American and Caribbean countries on alcohol advertising exposure. Despite generally weak restrictions across the 13 countries assessed, individuals from countries with more stringent restrictions were less likely to report advertising exposure. Given the differences between the Australian context and that of the countries described above, as well as the limitations of cross-sectional survey data, the findings are only suggestive. Nonetheless, the studies

do provide some support for the utility of restricting alcohol marketing exposure, even if restrictions are partial.

Case Study: France's Loi Evin

Casswell and Maxwell (2005) suggest that "France's Loi Evin is one of the most comprehensive attempts to restrict advertising of alcohol". While this may have been true in 2005, it probably does not hold now. This is because subsequent amendments – particularly in relation to the partial bans on advertising – have arguably reduced its overall efficacy by facilitating greater alcohol exposure (Gallopel-Morvan et al., 2017). Still, the restrictions on the content of advertisements implemented in 1991 are still enforced today, and as discussed below, provide a good starting point for thinking through how best to regulate the *content* of alcohol marketing (including online) in Australia.

France's Loi Evin was introduced in 1991 and in its original formulation was limited to traditional marketing. The law sought both to partially ban advertising (i.e., on TV and radio), and to provide fairly stringent stipulations for the range of permitted content in alcohol advertisements. Print media was not subject to the ban, but instead limited in terms of the type of content permitted. There were two components to the content restrictions: 1) alcohol advertisements were limited to providing "factual information" about alcohol products, and 2) must be accompanied by a health message stating "alcohol abuse is dangerous for health" (Rigaud & Craplet, 2004). Information which was permitted in advertisements included the alcohol product's country of origin, alcohol volume, means of production and so on (Gallopel-Morvan et al., 2017). In effect, this prohibited "attractive advertisements with positive, evocative images and/or text associating alcohol with pleasure, glamour, success, etc." (Gallopel-Morvan et al., 2017).

Since the Loi Evin's inception in 1991, it has been repeatedly "watered down". For instance, an attempt to extend the partial ban to include digital marketing in 2009 was unsuccessful (Casswell, 2012), so that online advertising is permitted "with the exception of sports websites and websites targeting young people" (Gallopel-Morvan et al., 2016). Then, following concern from the wine industry that the advertising restrictions were affecting tourism and foreign trade, further amendments were made to the Law in 2015 (Gallopel-Morvan et al., 2016). These amendments created exemptions for the advertisement of all beverages "with a certification of quality and origin, and linked to a production region or to cultural, gastronomic or regional heritage" (Gallopel-Morvan et al., 2016). Thus, it is not surprising that a recent study which aimed to assess alcohol advertising exposure among adolescents found high levels of exposure and concluded that the Loi Evin (in its 2015 formulation) is inadequate (Gallopel-Morvan et al., 2016). However, the requirements to portray alcohol products in an objective manner have remained, and as the following cases demonstrate, the Law remains a useful tool for minimizing the harms associated with alcohol advertising.

Even in its current (less-than-ideal) form, the Loi Evin is arguably more adept at addressing alcohol marketing than the self-regulatory codes in effect in Australia. While the Loi Evin seemingly fails to reduce *alcohol advertising exposure* (e.g., Gallopel-Morvan et al., 2016)*,* the content restrictions continue to provide a statutory avenue for addressing harmful alcohol messaging in advertisements. As noted by the Pan American Health Organisation (PAHO, 2016), the Loi Evin facilitates "an adjudication process that levies substantial fines and has been effective in removing ads in violation of the legislation", as some recent cases illustrate.

For instance, the Association Nationale de Prevention en Alcoologie et Addictologie (ANPAA) has taken action to ensure that alcohol brands which produce advertisements – both online and on traditional platforms – that violate the content restrictions are held to account (see Movendi International, 2020). In 2017, a case against Grimbergen, a beer manufacturer, was heard at the Tribunal de Grande Instance (TGI) in Paris in response to advertising content on the Grimbergen website which referenced the television show Game of Thrones (Movendi International, 2020). After an initial appeal by Grimbergen, the case was heard in the Court of Cassation where it was ruled that the advertisement(s) contravened the Evin Law. While the law is directed at traditional marketing, it clearly has relevance and utility as a tool for regulating the online sphere.

(3) Content Restrictions: Digital Media

Alcohol promotion in digital media: the alcohol transnationals in partnership with digital platforms

As noted in the Introduction, online marketing on digital platforms has become a major element in the marketing strategies and expenditures of the transnational alcohol corporations. This started with their strong involvement with the platforms more than a decade ago: by 2011, Diageo had a partnership with Facebook which involved "unprecedented levels of interaction and joint business planning" (Carah, 2017), and one-fifth of Diageo's marketing budget was for digital marketing, mostly on social media (Kelsey, 2020). By 2015, three beer and two spirits brands were reported to have more than 10 million fans on their Facebook pages (Michaelidou, 2017). As governments have become more concerned from various perspectives about the commercialisation by the digital platforms of social media, the enormous transnational enterprises (e.g., Facebook and Microsoft) which own and run the platforms have become more secretive and the alcohol transnationals no longer reveal any details of their partnerships with Facebook and other platforms (Carah, 2017). Seeking to "keep the digital domain, as far as possible, a regulation-free zone", the digital platforms have been pushing successfully for inclusion in new free-trade agreements of clauses prohibiting requirements for disclosure of source codes and algorithms, which would be a requisite for effective regulation (Kelsey, 2020).

Topics discussed as requiring regulation of content

Meanwhile, there has been a substantial shift in the political discourse concerning social media and the digital platform transnationals, with their social power, the secrecy of their algorithms, and their cultivation of problematic enthusiasms and behaviour coming under increasingly critical scrutiny (Room & O'Brien, 2021). Much of the discussion has been about the transmission and cultivation of morally or politically unacceptable content. Thus there have been discussions of disallowing "hate speech" and statements of support for "dangerous" individuals and organizations on social media. The British government is planning an online safety law which, according to a spokesperson for the government department involved, "will hold tech platforms to account for tackling and removing illegal content such as antisemitic comments. We will impose tough sanctions including huge fines if they do not act" (Wilkinson, 2021). In the wake of the mob invasion of the US Capitol Building on January 6, 2021, there has been unprecedented discussion in the US of ways and means for controlling the content of social media, which are seen as having been a crucial motivating and organising tool for the invasion. One line of discussion suggested that "the platforms could be overhauled, with regulators demanding insight into the operation of news feed

algorithms or trending lists that shape people's attention and have the potential to inflame and polarise political debate"; another remedy put forward was that "platforms could be made liable for the effects their platforms have — such as 'suggestion videos' and recommendation algorithms that potentially spread misinformation" (Purtill, 2021). There are also strong policy concerns about sharing or publishing child pornography and "revenge porn" – sexualised images circulated to mock or shame – which apply to digital media though not limited to them; thus the Australian Capital Territory makes the sharing or publishing of intimate images without consent punishable with a jail term (Le Grand, 2021). The Australian Federal Parliament is currently considering on Online Safety Bill which sets up an "eSafety Commission" with powers to order removal within 24 hours of material on digital media which is classed as "cyber-bullying" or "cyberabuse", and material which promoted, incites, instructs in or depicts violent conduct (Australian Government, 2021; Visentin, 2021).

Such topics are arguably already subject to prohibitions or restriction in everyday life, so that extension of such restrictions to the web is not breaking new conceptual ground. In free-market societies, it is a larger conceptual jump to prohibit or strongly restrict commercial advocacy or transactions. One area where there has been some action on this is internet gambling, which has unique characteristics as a sales item: there is no physical product to be delivered across a border, and legal sales are a highly taxed source of government revenue. In Australia, the sale of gambling online by offshore operators is forbidden, and advertising "interactive online gambling to Australian audiences" is generally illegal, under the federal Interactive Gambling Act 2001 (ACMA, 2021). In the first 3 months of 2021, the federal regulatory body reported receiving 95 complaints, investigating 50 gambling sites and apps, finding 45 breaches of the Act, issuing 5 formal warnings, referring 45 websites to internet service providers for blocking, and reporting 24 URLs (web addresses) to family-friendly filter providers (ACMA, 2021b).

The dimensions of increasing effort at regulatory control of online gambling in Australia are set by the National Consumer Protection Framework for Online Wagering, an agreement between the federal, state and territory governments in November, 2018 (https://www.dss.gov.au/communities-and-vulnerable-people-programs-services-gambling/national-consumer-protection-framework-for-online-wagering), drawing on information from previous reviews (e.g., Podesta & Thomas, 2017). Although the policy changes laid out in the Framework were supposed to be implemented within 18 months, the work is still not completed.

In terms of access to offshore online gambling sites, controls are far from complete. The advice on "Australian Online Gambling Law" on a website offering information on "the best real money gambling sites" is that "if you are an Australian punter,… you don't need to bog yourself down with all the legalities…. Just pick a site that's safe and everything else will handle itself" (https://www.gamblingsites.org/laws/australia/, accessed 15 May, 2021).

Although the Australian communications regulator has made a crackdown on offshore gambling sites an enforcement priority, a newspaper investigation found ten that were accessible from Australia, many with an explicitly Australian theme. Even investigating them is difficult, let alone controlling them, because they do not disclose their ownership, and shield registration of their websites behind internet protection services. The Australian regulator is proceeding with "enforcement and disruption operations available to us", including asking Australian internet service providers to block their websites. But some of the gambling providers repeatedly circumvent the blocks by launching mirror sites. The most that the regulator's spokesperson can claim for their

efforts is that they are "effective in reducing the amount of Australian traffic to the site" (Butler, 2021).

Elsewhere, there have been efforts by some countries to bring social media marketing and promotion of products with high risk potential for public health into the scope of public health-oriented restrictions. For instance, early in 2020 the British government's advisory body on data ethics proposed new regulations to control the algorithms that promote content on social networks, with the aim of suppressing "the spread of legal-but-harmful content such as material that encourages self-harm or eating disorders" (Hern, 2020). Concerning regulation of alcohol promotion on social media, the most developed and studied case is Finland's 2015 legislation, discussed below.

Challenges in regulating digital media

The digital transnationals controlling the main social media platforms have made substantial efforts to shield their arrangements and procedures from governmental scrutiny and control [see (1) below]. But regulation of marketing on digital media faces serious difficulties and impediments beyond this [2-4 below].

(1) In the context of international trade negotiations, particularly of new bilateral and multilateral agreements, the transnationals are seeking "new 'trade' rules on electronic commerce or digital trade … to shield digital technologies and the first-mover corporations that control the digital infrastructure from restrictive regulation" (Kelsey, 2020). Major aims are to shield the social media site's algorithms from public knowledge and control, and to prohibit governments from requiring an onshore presence of the company that owns a site which operates in their country; without such a presence, regulation of a digital site cannot be effectively enforced. So far, the algorithms have remained secret. But the issue of whether an onshore presence can be required remains a largely open question.

(2) The algorithm issue gets to the heart of marketing strategies on social media. A good deal of such marketing involves encouraging contributions to dialogues or strings which are favourable to the product and suggest expansion of the range of situations in which it may be used. The web dialogue often is organised around or includes paid "influencers", and the responses of web contributors are kept and analysed to identify audience members for specific marketing messages and approaches. The processes by which the web postings are analysed and used for commercial purposes are opaque, and will as much as possible be kept that way. The pursuit of commercial interests in social media thus cannot easily be monitored or regulated.

(3) So long as the worldwide web remains in its current form, digital marketing cannot be controlled at borders, as nonelectronic media or products can be. This is due to the 'borderless' nature of advertising through third party platforms which are not subject to normal regulation, or through third party users (e.g., influencers) who can promote products through 'regular' content (as opposed to direct advertisements). While governments can block specific domains (via internet services providers) for particularly egregious breaches – akin to the blocking of torrenting websites – the mirroring of these websites by domain hosts provides a relatively simple workaround. This makes it very difficult for any national or local government to regulate online marketing and other social media content. The extent of this difficulty varies with the reach of the national language: content in Estonian will be more easily identified as for a particular national market, for instance, than content in English.

(4) The initial poster of the content on social media is commonly not a corporation or institution subject to regulatory control, but rather an individual typing material in, often as a spur-of-the-moment response to stimulus from another posting. Currently, control of the content on social media is thus post-hoc, after the material has already been posted and disseminated. There are precedents, for instance from some "live" television broadcasts, for there to be a short delay in transmission, to allow immediate monitoring and control of what is about to be disseminated. To our knowledge, such a measure has not yet been proposed for web social media. Facebook and other platforms have responded to pressure to set and enforce limits on content on their platform, and have also been under pressure to find and remove unacceptable content faster, but decisions in the removal process are still retrospective, following posting of the content. Facebook, Google and Twitter, all of which are headquartered in the US, currently face substantial legislative pressure over "social media's role in promoting extremism and disinformation" (Smith, 2021).   Facebook's "moderators", employed or contracted by Facebook to find and remove unacceptable posts on its site, are tasked with enforcing rules which have multiplied, as documented in a leaked copy of the guidelines, to more than 300 pages, in some situations removing the content and in others algorithmically limiting its distribution (Hern, 2021).

Efforts to control promotion of alcohol on social media in Finland: A case study

In 2015, Finland became the first country to incorporate special regulation of social media into its alcohol control measures, aiming to limit the use of social media for alcohol marketing and to prevent adolescent drinking. Social media marketing for alcohol was restricted in three ways: (1) the use of interactive games, competitions and lotteries connected to drinking was forbidden; (2) user-generated content could not be used on an alcohol advertiser's social page; and (3) alcohol brands should not encourage consumers to share alcohol advertising content (Montonen & Tuominen, 2017; Kauppila, 2019).

Finland had had a strong temperance movement in its nation-building period of the late 19th and earlier 20th century, and a period of national prohibition succeeded by a restrictive alcohol rationing regime until 1955, and then by a state alcohol monopoly regime with gradually loosened restrictions -- loosened particularly after Finland joined the common market of the European Union in 1984. While alcohol advertising had been prohibited in Finland, it was legalised in 1995, under European Union pressure. Marketing of beverages with up to 22% alcohol content was allowed but still restricted; "advertising was not to be targeted at minors and consuming alcoholic products was not to be linked to enhancement of social or sexual success, for instance" (Kauppila et al., 2019, p. 20). Alcohol consumption generally rose until 2008, when alcohol taxes were increased and restrictions on television and cinema alcohol advertising were implemented, after which there was some decline in consumption. In 2015, restrictions on social media were included in a new law restricting alcohol advertising, although this had not been a part of previous political discussions. The main issue in the debates over the law had been a ban on suggestive advertising that associated the product "with values, ideas and aesthetics that are likely to have a positive effect on consumers and build a positive image of the product or brand", but this was strongly opposed by the alcohol industry and eventually dropped. Instead, outdoor advertising of alcohol and the use of competitions and games as part of outdoor advertising were banned, along with introduction of restrictions on social media advertising, which "was seen as a threat, especially to young people, as new means of viral marketing, along with games, lotteries and competitions, had been introduced as marketing strategies" (Kauppila et al., 2019, p. 21).

Concerning social media, the new law prohibited the marketing of mild alcoholic beverages if "the advertising commercial operator in an information network service administered by itself uses any textual or visual content produced by consumers or places into the service textual or visual content, produced by itself or by consumers, which is intended to be shared by consumers" (translation from Montonen & Tuominen, 2017, p. 203). As Kauppila and colleagues (2019, p. 22) point out, the wording is ambiguous, and forbidding content which "is intended to be shared by consumers" can be seen as a total ban, since social media platforms operate on the basis of sharing. Since the government proposal of the law had stated that the purpose was not a total ban, the language had to be interpreted by the agency in charge of implementation, the National Supervisory Authority for Welfare and Health. The agency's 2018 guidelines include seven points:

- forbidding the use of content generated by consumers;
- if possible, disabling the sharing function for an alcohol ad;
- forbidding encouragement of consumers to share ads;
- requiring removal of any consumer-generated material that can be considered alcohol advertising;
- but material produced in collaboration with a producer, seller or importer is not considered to be user-generated;
- sponsored advertising cannot include the sharing function, and the advertiser must ensure it is targeted at people of legal drinking age; and
- linking a sharing button to social media services is prohibited on alcohol products' regular internet sites (Kauppila et al., 2019, p. 22)

The results of the Finnish 2015 regulation of alcohol promotion on social media have been studied, in a comparison of changes in alcohol-involved content in Finnish social media in Finland and in Sweden between January 2014 and January 2017 (Kauppila et al., 2019; Katainen et al., 2020). The study focused on the Facebook, Instagram, Twitter and YouTube accounts of 38 alcoholic beverage producers in Finland, and 52 in Sweden, examining the content published by these producers on their social media accounts in January 2014, January 2016 and January 2017; this comprised a total of 1,536 social media posts from Finland and 1,204 from Sweden. Comparing countries and time points, the researchers analysed the prevalence of user reactions, the marketing content restricted by the 2015 Alcohol Act and the content restricted by the self-regulatory codes of the alcohol industry, and examined the ways in which producers aim to interact with consumers and appeal especially to young consumers.

One aspect of the study worth noting is the difficulty the researchers had in coding whether the content of the posts complied with the 2018 guidelines issued by the Finnish supervisory authority responsible for enforcing the 2015 law. It was easy to agree in coding whether the post did not comply with another provision in the law because it included a link to a game, a competition or a lottery. But it turned out not to be easy to agree on whether the post included consumer-produced content, or a consumer's recommendation or share suggestion (Katainen et al., 2020). These "challenges of social media as a research subject" suggest potential difficulties also for enforcement agencies in regulating the content of social media.

The first analysis of the data (Kauppila et al., 2019) found that the number of alcohol marketing messages doubled in both countries from January 2014 to January 2016 but declined in January 2017. Comparing Finnish and Swedish trends, the 2015 legal change in Finland seems to have had some effect on the content of alcohol marketing, particularly in terms of consumer-

generated content. The proportion of posts with content disallowed by the 2015 Finnish law increased in Sweden from 28% in 2016 to 32% in 2017, while it fell in Finland from 26% in 2016 to 16% in 2017 (Kauppila et al., 2019, pp. 58, 61). There were minor differences in age limit controls on access to alcohol marketing messages: none of the Swedish producers had introduced age limit controls on Instagram, whereas by 2017 13% in Finland had done so.

A later analysis discussed the apparent delayed effect of the 2015 restrictions, suggesting that it might have been "because of the lack of media coverage and debate when the amendment came into effect. Other regulatory changes that took place at the same time, such as the ban of outdoor advertising of alcohol, were widely debated, whereas the social media amendment went largely unnoticed in the media…. It seems likely that the decrease in consumer-generated content in the Finnish alcohol marketing posts is attributable to the regulations and that the amendment has, therefore, had an impact on the social media marketing techniques used by Finnish alcohol brands…. However, it appears that the new law has not affected the most important aspect of social media marketing in terms of effectiveness: its success in engaging consumers. Although the level of active consumer engagement in alcohol marketing content has been low in both countries, Finnish marketers engaged more users in the 2017 sample than in the 2014 sample. This indicates that the new regulations do not prevent alcohol marketers from generating engaging content for the purpose of social media communications and using the platforms efficiently in their marketing efforts" (Katainen et al., 2020).

Implications and conclusions

While the Finnish case study found some differential changes in Finnish social media alcohol-involved posts, compared to Sweden, it also illustrated how much of a challenge regulating alcohol content on social media posed – even when what is being regulated is posts in a language which is the national language of only one country. Stepping back from their specific case study, the Finnish study researchers noted that "the regulation of social media marketing through national legislation is difficult, as social media service providers operate globally, and the platforms they provide are constantly developed to optimize user experience and are difficult to monitor" (Kauppila et al., 2019). This comment can be related to general experience elsewhere in regulating the content of alcohol marketing in more traditional media. Short of an absolute prohibition, or a very clear specification of what can be shown (e.g., only a picture of the product itself), limitations on content tend to be treated by advertising agency staff – working in a very "wet" environment (Rigby, 2021) – as a challenge, with the boundaries to be continually tested. In Canada in the early 1990s, for instance, when all proposed alcohol advertisements on television needed to be submitted for preapproval, only about one-half were approved as within the boundaries.

As this is written, it seems highly likely that there will be substantial changes in the general societal regulation of social media and other digital media, though at what level of government, in what form and by what means is as yet unclear. It is in the interest of public health and welfare that controlling advertising and other promotion of potentially harmful behaviours and commodities, including alcoholic beverages, should be included in these discussions. Opportunities will need to be addressed and seized as they arise, in the current volatile policy environment concerning governance of social media. The results of the Finnish experience with regulation of alcohol promotion on social media can be seen as holding some parallels with the experience with regulating content of advertising on traditional media: if any commercial promotion is allowed, very

clear bright lines on the limits need to be drawn -- if not an outright ban, then a clear and simple listing of what is allowed and what is not.

(4) Counter-Advertising

Counter-advertising is a strategy that involves the distribution of advertising material aiming to counteract or neutralise the effects of advertising and other promotion of a potentially harmful behaviour. In the case of alcohol counter-marketing, the aim is to counter or at least balance the effects that alcohol advertising may have on alcohol consumption and alcohol-related problems (Agostinelli & Grube, 2002). Examples of counter-advertising include messages on television or other media warning about potential physical, psychological and social adverse consequences of alcohol consumption, messages targeting specific alcohol-related harms such as drink driving, and messages advising on low-risk limits on levels of drinking. Warning labels on alcohol bottles and cans or included in alcohol advertisements can be seen as another form of counter-advertising. Counter-advertising can also be widely distributed digitally with relative ease.

The term "counter-advertising" can be used in the restricted sense of a message specifically countering a particular advertisement promoting alcohol purchase and consumption, or more broadly as messaging in the interest of public health and welfare to counter general efforts to promote and market alcohol. In this broader frame, it is often discussed under the term "social marketing", which has been defined as seeking "to develop and integrate marketing concepts with other approaches to influence behaviors that benefit individuals and communities for the greater social good" (AASM, ISMA, ESMA, 2013). Thus there is a growing literature on evaluations of social marketing efforts at "minimizing alcohol harm", including a systematic review of 23 interventions (Kubacki et al., 2015), and a meta-analysis covering alcohol interventions in comparisons with interventions addressing smoking, physical activity and eating (Hung, 2017).

Advertising and other promotion of alcoholic beverages and other commercial products is a strongly developed aspect of market economies, seen as a major means of maintaining and indeed growing the market for and thus the revenue from the advertiser's products. Expenditures on marketing are facilitated by the fact that they are commonly deductible from the advertiser's revenue when calculating government taxes on profits (see Section 6 below). A main issue for any effort at counter-advertising is thus not only finding the means to support the counteradvertising, but also that there is usually a large imbalance between the amount of advertising and the amount of counter-advertising. With respect to alcohol, various efforts have been made in one place or another to reset this balance, in the interests of public health and welfare. A government agency can pay for counter-advertisements. Media can be required to carry balancing counter-advertisements without charge, or a government can require counter-advertising messages to be included in the advertisement or on the product. Both the alcohol and the media industries tend to resist such requirements, or to weaken them with "co-regulatory" schemes giving industry interests a voice in formulation of the content.

Evidence of effectiveness

Evidence of the effectiveness of counter-advertising comes primarily from public health issues other than alcohol. With tobacco, a "fairness doctrine" imposed by US courts concerning issues on television was interpreted to mean that as of 1968 TV channels had to carry anti-smoking

advertisements without charge if they carried tobacco advertising. The counter-advertising was seen as so effective that, within two years, the tobacco industry had accepted a legislative prohibition on advertising cigarettes on television (Hamilton, 1972). In California, a counter-advertising campaign paid for by the state, with somewhat in-your-face messages (e.g., "The tobacco industry is not in business for your health"), had a substantial effect in reducing cigarette consumption in the period before the tobacco industry succeeded in killing the campaign (Hu et al., 1995).

For counter-advertising on alcohol, perhaps the clearest such result can be found from Thailand. About 90% of the Thai population is Buddhist, a religion which generally disfavours drinking, and particularly so during the Buddhist Lent. An evaluation of a mass media campaign each year to discourage drinking during the Lent found that, while exposure of drinkers to alcohol advertising during that period encouraged them to continue drinking, being exposed also to the anti-drinking messages induced them to either drink less or stop drinking altogether during the Lent (Witvorapong et al., 2019).

Systematic reviews related to alcohol counter-advertising are concerned with social marketing more generally and are limited in their conclusions. The review of studies aiming at "minimizing alcohol harm" by social marketing (Kubacki et al., 2015) found 23 interventions between 2000 and 2014 which had been evaluated, but concentrated on how completely the studies had applied the social marketing model and on critiquing their methods, with little to say about their effectiveness. A dissertation which meta-analysed and compared the effectiveness of social marketing interventions across topical areas included 8 studies addressing alcohol drinking (Hung, 2017). The mean effect size of the intervention for alcohol (0.08) was substantially less than the average for all studies (0.14), and less than the effect sizes for the other three behaviours addressed -- healthy eating (0.32), smoking (0.18) and physical activity (0.15); the conclusion was that social marketing interventions were effective for the other activities addressed, but that "those addressing drinking were not" (pp. 41, 67).

Australian studies on alcohol which include social marketing approaches have focused primarily on the prevention of underage drinking. A whole-of-community study found "preliminary evidence" that the intervention, in comparison to a control community, "can change perceptions of the prevalence and acceptability of underage drinking" (Jones et al., 2018). A community trial aiming to prevent adolescent alcohol use in 14 communities, with 14 control communities, found larger reductions in consumption in the intervention communities, though the difference was not significant, and a significantly lower proportion of teenagers saying that they intended to drink before they were 18 (Rowland et al., 2018).

More specifically in a counter-message frame, there have been a variety of policy decisions requiring counter-advertising in contexts where an alcohol transaction or drinking is being thought about or engaged in – ranging from the Swedish requirement that 1/8 of the space in printed-media advertisements for alcohol consist of one of 11 rotating warning messages, to the requirement in California of a warning sign on the risks of cancer and of birth defects from drinking at the entrance to any store selling alcoholic beverages (Wilkinson & Room, 2009). The most commonly studied of these counter-message requirements is required warnings on alcoholic beverage containers. A systematic review identified 15 articles studying effects of warning labels on individual consumers between 2000 and 2015, 8 of them concerning the US warning label (Hassan & Shiu, 2017). The study found "mixed" findings on the efficacy of the warning labels, and that there is "not enough

evidence on which alcohol warning labels are more/less effective on behavioral compliance". Studies of reception of the US label found that, in comparison to trends among Canadians, survey responses of Americans indicated "modest effects on conversations and several precautionary behaviors related to risks of drinking" (Greenfield et al., 1999). The strongest evidence of an effect is for the warning labels in Yukon Territory, Canada, which included a label warning of the risk of cancer – although the effect in this case may have been enhanced by the publicity over the alcohol industry's successful effort to suppress the label (Zhou et al., 2020). An Australian study found good recognition of the "standard drinks"-equivalent logo on Australian beverage labels, with heavier drinkers more likely to recognise its meaning (Coomber et al., 2017).

Perhaps the strongest evidence at least of potential effects of alcohol counter-advertising is the amount of energy and resources the alcohol industry has spent seeking to alter, counteract or extinguish it. As the Yukon Territory case exemplifies, industry interests are particularly averse to messages about cancer or poisoning. At the other end of the spectrum, industry interests have pressed, often successfully, for anodyne messages such as about "responsible drinking", pointing to the drinker rather than their product as the source of any problems. Through trade and investment agreements, industry interests have also sought to keep any government-ordered warning messages marginalised on the labels of alcohol containers (O'Brien et al., 2017).

(5) Restrictions on the Timing and/or Placement of Advertisements

This policy option concerns (i) the regulation of alcohol advertising at a designated time of day, and (ii) the regulated placement of advertisements in particular settings, during specific events or in any other context of concern. As there is considerable concern that alcohol advertising causes a disproportionate level of harm for select at-risk groups, this option typically aims to tailor the delivery of alcohol advertising to times and spaces that these individuals are less likely to view them (for example, during television slots that are likely to attract the viewing of people under the legal alcohol purchasing age). They may also aim to prohibit the presence of alcohol advertising in spaces or on websites/platforms that attract these individuals.

Evidence of effectiveness

Given the diverse range of contexts in which alcohol advertisements can be distributed, there are inherent difficulties in creating a solution that constitutes a "catch all", and regulation proves easier in some domains than in others. Indeed, a wide range of media are utilised to promote alcohol products. Young people, who are seen as the most susceptible to harms related to alcohol marketing [such as earlier initiation of drinking (Sargent & Babor, 2020)], report seeing alcohol marketing in a wide range of domains in Australia, including in public spaces (billboards, etc.), on television, in print media, and in digital domains such as social media and the wider web (Aiken et al., 2018).

The World Health Organisation (2010) recommends statutory controls of the content, timing, and placement of alcohol marketing material. However, at present, some jurisdictions rely on a "self-regulation" (i.e., industry-managed) model. This is a model adopted in Australia, whereby the placement and time-of-day broadcasting of advertisements (across all media) is governed by the Alcohol Beverages Advertising Code (ABAC) Scheme, applying principles in the ABAC Responsible Alcohol Marketing Code. Despite the restrictions on timing, over half of alcohol advertisements are

aired during popular viewing times for children (Pettigrew et al., 2012), in considerable part because the time-of-day restrictions are waived for advertisements during broadcast of sporting events. While placement rules in the ABAC Scheme's Responsible Alcohol Marketing Code were updated in 2017, ostensibly aimed at improving outcomes for young individuals, a critical review of this update noted that industry-managed models still "fail to effectively regulate alcohol marketing, and government intervention is needed if young people's wellbeing is to be a priority of the regulatory system" (Pierce et al., 2019). Moreover, Pierce et al. (2019) note that code provisions are narrowly worded, and that new updates simultaneously made it easier for marketing parties to excuse themselves from contraventions of the Code through introduction of a "no-fault breach" system, heavily undermining its effectiveness. In a similar vein, Swensen (2016) states that the "industry interpretation" of placement principles is often loose and has left much to be desired regarding advertising in public spaces. Pierce et al. further argue that more rigid governmental control over spaces in which advertising appears is a logical way forward – for example, curbing advertisements on digital billboards by roadsides, shopping centres and similar public settings.

The statutory regulation of advertisement placement and timing is a solution that cannot be as easily applied to *digital* domains. This is due to the frequently changing nature of how information is delivered and consumed in this context, and the size of the task of monitoring and enforcing meaningful and widespread regulation online. Room and O'Brien (2021) note that borderless nature of the internet also makes meaningful regulation difficult on a national level, compounded by an entrenched unwillingness of 'Big Tech' to share the source codes, algorithms and protocols involved in marketing through their platforms. To this end, the practices and intricacies of the placement of online alcohol marketing are obfuscated, rendering effective regulation nearly impossible due to difficulty in (i) identifying which facets of online media to regulate in an ephemeral digital climate, and (ii) effectively monitoring and enforcing adherence to these controls. As previously discussed, this issue is further compounded by online marketing (compared to more traditional marketing) being less publicly visible, more targeted, and deploying more subtle strategies, such as the use of funded influencers and the promotion of user-generated content (Carah & Brodmerkel, 2021).

Emerging solutions within the digital sphere

While in its infancy, one emerging area that may serve as part of the solution to this issue is the use of artificial intelligence -- specifically, the use of artificial intelligence to monitor and enforce regulatory controls of advertisement placement, whether present or future, or perhaps even as a standalone intervention against exposure to alcohol marketing. Kuntsche et al. (2020) describe the development of a deep learning (artificial intelligence) algorithm that can passively and automatically detect the depiction of alcoholic beverages (e.g., beer, wine and/or spirits) in digital imagery. Norman et al. (2021) conducted preliminary testing of the accuracy of this algorithm on social media imagery containing alcoholic beverages. Despite highlighting improvements that need to be made before it can be effectively implemented, the authors describe two key practical implications for the use of such technology; one reactive and one proactive. Firstly, as a reactive strategy, the authors note that the automatic detection of alcoholic imagery (which would detect a substantial proportion of alcohol advertisements) could be used to centrally monitor advertisements on digital platforms (e.g., those heavily trafficked by individuals under the legal alcohol purchasing age), thus improving capacity to enforce regulatory breaches. As this content is frequently targeted (i.e., shown to specific groups of people based on demographic or browsing characteristics), a workable monitoring system might involve the use of dummy accounts that exhibit specific

characteristics of interest (e.g., mirroring a user below the legal drinking age). The algorithm might also trawl popular content (e.g., pages over a certain threshold of 'likes', or that have high levels of regular engagement), flagging alcohol-related sponsored content for review. Such a strategy could be effective if used in conjunction with more explicit statutory regulation. Secondly, as a proactive strategy, such technology could be used to actively screen and filter out alcohol-related content while browsing online (delivered through, for example, a web browser plugin). This could serve as an optional but additional layer of protection against advertisement exposure to at-risk cohorts.

Challenges and implications

In the age of stream-on-demand services, social media platforms and the broader dissemination of content via the wider web, regulating the "timing" of alcohol marketing is quickly becoming an antiquated concept. Unlike television in 2000, for instance, advertisements can now be tied into content at any moment, for any length of time (if integrated as sponsored content, for example), or directed at only specific groups of people regardless of when they consume the content. This arguably makes the regulation of advertisement "placement" more important than it has ever been. However, as discussed earlier in this section, this is an extremely difficult challenge when considering the rapidly evolving nature of content consumption online, as well as the unwillingness of overseas-based corporations to accept and assist regulatory oversight. Statutory control over placement, both offline and online, seems the most fruitful way forward, considering how ineffective the current industry-run model has proved. While this would still leave regulatory bodies with the issue of monitoring and enforcing regulation, early but promising advances in artificial intelligence may serve as part of the solution going forward.

(6) Prohibiting Tax Concessions for Alcohol Marketing Costs

It is a matter of assumption in open-market societies like Australia that "the marketing budget for any business is part of necessary operating expenses" and therefore can be claimed as a deduction to reduce taxable income (Thorne, 2021). One approach to reducing the volume of alcohol marketing would be to prohibit corporate tax deductions for alcohol marketing expenditure, in calculating the corporation's taxable income. This would render advertising their product a less attractive option for alcohol sellers. In recent decades, this approach has been recommended in various contexts in the U.S., although apparently without ever being implemented. For instance, in 1989 the U.S. Surgeon-General's Drunk Driving panel recommended elimination of tax deductions for some but not all alcohol advertising: that the federal government should "eliminate tax deductions for alcohol advertising and promotion other than price and product advertising" (US DHHS, 1989, p. 29), and the following year the Surgeon-General proposed eliminating the tax deduction for alcohol advertising altogether (Taylor, 1994, footnote 16). Noting that the tax benefit "serves as a sort of advertising subsidy", a 1994 law journal article proposed that U.S. states impose an excise tax on alcohol advertising expenditures to "reduce the federal government subsidy for this activity" (Taylor, 1994, pp. 593, 605). Saffer (1997) estimated that prohibiting the "tax deductibility" of alcohol advertising expenditure would increase the price of advertising in the US by up to 54%. A Dutch researcher noted that the deductibility of alcohol advertising from corporate profits there can be argued to mean that in the Netherlands the state subsidises half of the costs of alcohol advertising (van Iwaarden, 1985). Besides being a disincentive for advertising expenditures, eliminating their deductibility increases tax revenue, which can then be re-invested (e.g., to further counter-advertising efforts).

Though the idea of removing or limiting the tax deductibility of advertising of health-risking goods has thus been put forward for some decades, mostly in the U.S. (e.g., for advertising of junk food to children: Jolly, 2011; for tobacco: Virelli, 1999), there is little in the scholarly literature about any actual implementation of this measure. A review of alcohol policies in China notes a somewhat related measure there: a 2001 measure to increase government revenues from alcohol sales included putting a 20% limit on the proportion of sales revenues that could be used for advertising (Tang et al., 2013). In the US, constitutional protections on free speech, interpreted by the courts to apply to advertising, are a potential complication, although there are legal arguments in the context of tobacco advertising that removing tax deductibility would be permissible (Virelli, 1999). A substantial practical difficulty might well be manoeuvres by industry interests to evade such a measure, for instance by "brand sharing". In Thailand, alcohol companies have evaded the strict alcohol marketing and advertising regulations by sharing their brands across other products such as still water and soda water, which can be advertised without restriction. Thai youngsters clearly see and interpret these ads in terms of the alcoholic products (Kaewpramkusol et al., 2019). There are likely to be similar manoeuvres to outflank a prohibition on deducting alcohol advertising costs.

Evidence on efficacy

An early call-to-arms to the advertising industry against taxes on advertising acknowledged that there was little evidence on the effects of such taxes (Boddewyn, 1983). Concerning the tax-deductibility of advertising, this remains true: most of the evidence concerning the effectiveness of this approach is based on econometric modelling of the *potential* effect of taxation changes. For instance, one study (Chou et al., 2008) estimated that eliminating the tax deductibility of fast-food advertising would result in a 40 percent reduction in advertising exposure among children.

Application to the digital sphere

A major impediment to achieving this form of regulation, described elsewhere in the report, is the transnational nature of alcohol marketing in the digital sphere. Thus, even if the Australian government amended legislation to minimize tax concessions for alcohol advertising expenditure, it would only apply to companies subject to Australian taxation. The current first steps at the international level towards a new international agreement on corporate tax rates (Partington, 2021) may offer new pathways for taking on this issue.

(7) Restrictions on the Use of Personal Information/Data

The collection of internet users' data and information is an integral component of current "data-driven business models", which generally take one of three forms: "search engines, e-commerce [platforms] and social media" (Böhmecke-Schwafert & Niebel, 2018). Whatever the model, the profitability of this approach relies on the ability to collect and analyse user data, which can then be sold and used, among other things, to facilitate personalised and targeted advertising. For instance, 98 percent of Facebook's revenue in 2017 was derived from sale of user data to advertisers (Böhmecke-Schwafert & Niebel, 2018).

Often termed "online behaviour advertising" (OBA) or "targeted marketing", data-driven business models rely on "the use of tracking technologies, profiling and interest-based analytics to target online advertisements to consumers" (Mathews-Hunt, 2016). Commonly, this includes

tracking internet user's web activity using cookies and provides a wealth of information on consumer behaviour (Hovland, 2015). However, further developments in tracking technologies such as Google Analytics and Facebook Pixel have provided advertising platforms with "real-time dynamic statistics concerning both users and their online actions" which provides even more detail than traditional third-party cookie tracking (Semeradova & Weinlich, 2019).

Consequently, the data collected by social media platforms and search engines, such as Google, can be used to develop psychometric profiles of internet users, as well as detailed accounts of consumer and browsing behaviour (Winter, Maslowska & Vos, 2021). This allows for the tailoring of marketing messages towards the "specific persuasive susceptibilities" of users, whereby advertisements are personalized to reflect the traits and interests of sub-sects of the population (Winter, Maslowska & Vos, 2021). For instance, based on the data collected from users' behaviours on social media, and on the internet more generally, it is possible for algorithms to create a profile of users based on the 'Big five' personality traits (e.g., openness to experience, extraversion vs introversion, etc.) (Winter, Maslowska & Vos, 2021). Advertisers can then create "personalized" content that appeals to those traits: e.g., "a person with high openness to new experiences would be exposed to an ad that focuses on novel features of a product, while a person with low openness to experience would be shown an ad that highlights the long tradition and classic features of a product" (Winter, Maslowska & Vos, 2021).

In the context of alcohol marketing, this ability to prey on users' susceptibility to certain types of messaging is especially nefarious because 1) it likely increases the effectiveness of alcohol advertisements, and 2) it may unduly target vulnerable people, e.g., those with existing alcohol use problems and young people.

> (1) There is some evidence that targeted advertising which "personalizes" advertisements to users' interests and online behaviours leads to higher engagement than non-targeted ads (Seckelmann, Bargas-Avila, & Opwis, 2011). Studies have shown that personalized advertisements often result in a higher 'click-through-rate' (i.e., the proportion of all users who view the web page and click on the advertisement), and thus, can be more effective at engaging consumers (Bleier & Eisenbeiss, 2015) -- although this does depend on the individual characteristics (e.g., concern for privacy, etc.) of users (Bleier & Eisenbeiss, 2015). Targeted advertising on social media is especially effective, not only because it combines in-depth data on users' interests and online behaviours, but because it can also "utilize the power of social influence" (Li, Lin & Chiu, 2014). While this can occur more explicitly through "social influencers", it can also involve promoting advertisements for brands/products that "friends" have "liked", for instance, thereby increasing the persuasive influence and efficacy of the advertisements (Li, Lin & Chiu, 2014).

> (2) Targeted alcohol advertising is especially risky when directed towards young people or those experiencing alcohol use issues. Young people, particularly those aged under 16 years, do not have the same level of "advertising literacy (i.e., understanding of the selling and persuasive intent)" and are often less aware of the ways in which their data are used to target advertising (Zarouali et al., 2020). Consequently, young people are especially prone to alcohol advertising, and even more so when it is targeted.

A recent report by Reset Australia indicates that Facebook currently has inadequate controls to protect against targeted advertising towards young people. Indeed, Facebook collects data on "underage users to create profiles of young people with harmful or risky interests such as 13-17 year olds interested in smoking, gambling, alcohol or extreme weight loss" (Williams, McIntosh & Farthing, 2021). The report found that an advertising campaign, based in Australia, could reach "a thousand young people profiled as interested in alcohol" for as little as $3.03. Thus, young people *are* being targeted, and the current regulatory framework is clearly not providing adequate protection against alcohol advertising exposure.

Further, there is a risk that targeted advertising may increase the likelihood of alcohol advertising exposure for those with alcohol use issues. For instance, the algorithms used to target marketing may register the online purchasing of alcohol or numerous internet searches for "alcohol" or "alcohol counselling" etc. among individuals with alcohol use disorders, and then provide highly appealing and tailored alcohol advertisements. This risk is elucidated in a recent article in *The Guardian* (Hern, 2021), and demonstrates how the collection of personal data, including search histories, can have a devasting impact. Facebook was forced to apologize when it was discovered that Instagram (owned by Facebook) was inadvertently promoting "weight-loss content to users with eating disorders" (Hern, 2021). This occurred because Instagram's algorithms were providing tailored content derived from the personalized data of these users. It follows then that similar issues are likely in the context of alcohol content on social media; however, further research is required to examine how exactly this plays out.

Case study: The EU's General Data Protection Regulation

According to Hoofnagle, van der Sloot & Borgesius (2019) the EU's *General Data Protection Regulation* (GDPR) "is the most consequential regulatory development in information policy in a generation". The GDPR aims to provide individuals with greater control over their personal data and requires that websites seek consent from individuals to collect information (e.g., third party cookies) (Hu & Sastry, 2019). Some of the noteworthy provisions in the GDPR include: 1) the right to access personal information and data, 2) the right to be forgotten (i.e., one can request the erasure of personal data), and 3) the right to object to the use of personal data for direct marketing purposes (Hoofnagle, van der Sloot & Borgesius, 2019; Information Commissioner's Office, 2021). The latter is particularly relevant, given online targeted marketing/behavioural advertising fundamentally relies on personal data to be effectual.

Additionally, an important component of the GDPR is aimed at ensuring that meaningful consent is sought prior to collecting data from users. Whereas previously the collection of personal information on websites such as Facebook may have occurred through implied consent (e.g., creating an account or viewing a website amounts to consent, with little opportunity to opt-out), the GDPR aims to make the consent process more meaningful. Within the GDPR, "consent must not only be freely given, specific, informed and unambiguous, it must be indicated by the user's affirmative act – it is no longer enough to display 'implied consent' notices, pre-selected checkboxes, or cookie walls, and it must be as easy for users to withdraw consent as to give it" (O'Neill, 2018). This has resulted in the proliferation of "cookie consent notices" on various websites, with some estimates suggesting an increase of 60% on popular websites in the EU (Utz et al., 2019). However, as described below, there are some challenges which remain with this approach.

An additional noteworthy feature of the GDPR is that it has extraterritorial applicability (Greze, 2019). In other words, any data controller or processor (e.g., businesses) which processes the data of EU citizens is subject to the GDPR regulations, regardless of whether or not they have an office in the EU (Greze, 2019). This includes for the purpose of offering goods or services… [or] the monitoring of their behaviours" (Houser & Voss, 2018). Theoretically, this "extraterritorial application" provides one solution to the regulatory challenges posed by the transnational and "borderless" nature of data collection practices, and online advertising more broadly. However, it remains to be seen whether enforcement will be effective (or feasible) in non-EU jurisdictions (Greze, 2019). There is also likely to be substantial pushback from companies like Facebook and Google, who will no doubt attempt to circumvent the GDPR's requirements (Houser & Voss, 2018).

Monitoring and enforcement. Within EU member states, the GDPR is monitored and enforced by national Data Protection Authorities with oversight from the European Data Protection Board (European Commission, 2018). The GDPR is statutory and provides for substantial sanctions for breaches, in which non-compliance "can lead to a maximum fine of 4% of global turnover or 20 million, whichever is more" (Bohmecke-Schwafert & Niebel, 2018). Since 2018, it appears that several EU states have actively enforced and sanctioned violations. According to a recent report, "there have been more than 281,000 data breach notifications since the application of GPDR", and "EUR272.5 million" of fines have been imposed (McKean, Kurowska-Tober & Waem, 2021).

A recent case study further demonstrates that the GDPR provides the legislative might to hold Big tech companies responsible for breaches related to data collection and processing for personalised advertising. In January 2019, the *Commission Nationale Informatique et Libertés* (CNIL), France's Data Protection Authority, fined Google €50 million for breaching several articles of the GDPR (Tambou, 2019). Among other things, CNIL claimed that Google provided insufficient information about their data collection and privacy practices and were collecting and processing data for personalised advertising without "valid consent" (Tambou, 2019). It was deemed that "consent is neither unambiguous nor specific" because "pre-ticked boxes" were used and "users need to click on the button 'more options' to see what the alternatives are" (Tambou, 2019).

Proposal for a "Do-not-track" mechanism. Some have argued that the current GDPR does not go far enough and should include a "do-not-track" mechanism, in addition to the current provisions aimed at providing individuals with the opportunity to opt out of digital tracking via cookies, and the use of personal data for direct marketing (e.g., Kirsch, 2011; O'Neill, 2018). In essence, the aim of the "do-not-track" mechanism is that individuals could signify – possibly to a government regulatory body or through their web browser – that they do not wish for data to be collected, or used for certain purposes (e.g., targeted marketing). In comparison, the current approach requires that each website/company (etc.) must seek consent and provide the "right to object" to the use of personal data for marketing, and so on. While still in its infancy, this is an area worth exploring and may be useful for thinking through how best to protect people from alcohol marketing on the web.

Case study: Data protection and regulation of online harm in the UK

After Brexit, the UK implemented the UK GDPR, which essentially takes the same form as the EU's regulatory framework for data protection (Information Commissioner's Office, 2021). However, the UK government has also passed additional legislation aimed at addressing harms online (Hern, 2020). The UK government has proposed the *Online Harms Bill* which does not include any specific provisions for alcohol, but may provide insights for thinking through how best to address

Big Alcohol and Big Tech. The bill "sets out strict new guidelines governing the removal of illegal content such as child sexual abuse, terrorist material and media that promotes suicide" (Hern, 2020). Importantly, the bill also considers content which is not strictly illegal but is considered harmful (e.g., references to suicide, etc.). Lastly, the proposed bill stipulates that Ofcom, the national communications regulator, will be charged with the responsibility of monitoring and enforcement and provided with the power to "levy unprecedented fines of up to £18m or 10% of global turnover" (Hern, 2020). Given the bill does not address alcohol advertising, its utility in that context is limited, but it is an area worth keeping an eye on. With the regulatory structures in place, providing there is the political will for it, it would not be difficult to include targeted alcohol advertising within the bill's remit.

Other case studies: countries which have implemented GPDR-like regulations

The GDPR has created global momentum for data protection and privacy reform and thus several countries or jurisdictions have adopted similar privacy laws (Breitbarth, 2019). Some notable examples of recent GDPR-like legislation include the following.

(1) The California *Consumer Privacy Act*

The California Consumer Privacy Act of 2018 (CCPA) was inspired by and shares similarities with the GDPR. Palmieri (2020) suggests that it is less comprehensive than the GDPR, but nonetheless, provides many of the same rights and protections. Likewise, consumers have "a right to opt out of the "sale" of personal information to a third party" (de la Torre, 2018).

(2) Thailand's *Personal Data Protection Act (PDPA)*

Thailand's *Personal Data Protection Act (PDPA)* was "explicitly" modelled on the GDPR, and thus there are only a few notable differences (Greenleaf & Suriyawongkul, 2019). The PDPA stipulates a maximum fine of THB 5 million but does not include a fine calculated as a percentage of annual turnover (OneTrust DataGuidance, n.d.). Further, the PDPA includes the potential for criminal penalties, including up to one year imprisonment for violations (e.g., company directors, etc.).

(3) Canada's *Digital Charter Implementation Act*

The Canadian government is in the process of developing privacy legislation which will include many of the same protections as the GDPR, such as 'meaningful consent', 'data mobility' and 'disposal of personal information' (Government of Canada, 2020). Under the proposed bill, the *Consumer Privacy Protection Act,* a Privacy Commissioner would be established with oversight by a Personal Information and Data Protection Tribunal (Government of Canada, 2020). The proposed penalties for non-compliance would include "up to 3% of global revenue or $10 million" (Government of Canada, 2020). Interestingly, the proposed bill also provides provisions for "algorithmic transparency", meaning "businesses would have to be transparent" about how they use artificial intelligence systems "to make significant predictions, recommendations or decisions about individuals" (Government of Canada, 2020). Lastly, "individuals would also have the right to request that businesses explain how a prediction, recommendation or decision was made…and explain how the information was obtained" (Government of Canada, 2020). As discussed below, this would massively assist with efforts to monitor and enforce targeted marketing by providing regulators with insight into how the algorithms that target marketing function.

Challenges and implications

Given the move towards "personalized" and targeted advertising on social media, one obvious challenge is that monitoring and identifying advertisements is especially difficult (Centre for Data Ethics and Innovation, 2020). This also renders attempts to document and research alcohol marketing strategies more difficult. Unlike traditional advertisements which are easily accessed by the public, targeted alcohol ads may be buried in the newsfeeds of a particular users, and thus "invisible" to researchers and/or regulators. Despite growing awareness among governments internationally that further regulation of the data collection and usage practices of these large tech firms is needed, there is "extreme asymmetry" regarding access to information (Centre for Data Ethics and Innovation, 2020). For the most part, governments and regulators remain in the dark about how data is collected and utilized for targeted marketing. Thus, an important first step would be to improve the transparency of these processes by providing regulators with 'secure access to their data' (Centre for Data Ethics and Innovation, 2020). The proposed Canadian bill provides a potential avenue for addressing this issue, and development with it should be monitored.

Further, while the GDPR and its equivalents (e.g., the CCPA) provide ground-breaking provisions that have the potential to limit the collection of personal data for the purpose of targeted alcohol advertising, its overall efficacy depends on individuals *asserting their rights.* For such an approach to be effective, there would need to be widespread understanding about how and under what circumstances individuals can "opt out" of targeted marketing, or the collection of their personal data (e.g., cookies). A recent study by Hu and Sastry (2019) notes that since the implementation of the GDPR, there has been "no material reduction in long-term numbers of third-party cookies, suggesting that users are not making use of the choices offered by GDPR for increased privacy". For this reason, it remains to be seen whether this approach will have a large-scale effect on targeted alcohol marketing on social media. When the objective is seeking meaningful consent, with adequate information about data collection practices provided, this requires more effort than clicking "I agree" to an anodyne question for personal information to be handed over. The do-not-track approach (described above) is one solution to this issue, as users would only have to object to data collection once. Alternatively, regulators could prohibit the collection of personal data for targeted marketing *unless* consent is expressly given (i.e., the user opts in).

In recent months, even before the early-2021 wrestling bout between Facebook and the Australian government (Meade et al., 2021), the issue of the omnivorous data collection and processing of the global internet monopolies, and of their efforts to protect their algorithms and data clouds from any regulatory control, has come increasingly to the fore at the international level (Room & O'Brien, 2020). There are currently many discussions in the press that we are at the "start of a global battle" concerning this (Meagher, 2021). This provides an opportunity to lobby for the inclusion of specific alcohol provisions in the various pieces of legislation (cf. the UK's *Online Harms Bill* and Australia's *Online Safety Bill*, discussed in Section 3)*,* which will no doubt develop as governments continue to work through approaches to regulating the online sphere. Thus, effective alcohol control policy in this space may develop on the periphery of other larger measures to curtail online harms.

Restrictions on advertising and other promotion of legal products are difficult in an open society, particularly in a society with general commitment to market freedom. Even before the advent of the internet and of digital media, this was true. The greatest success in controlling such advertising and promotion of alcohol in such societies has tended to be where the government had assumed substantial power and control in the market, for instance by a national government monopoly on key aspects of the market, as in Nordic countries other than Denmark. The advent of the internet and of digital media, along with the general neoliberal tendency of industry and market policies in recent decades, has made a public health approach to the regulation of problematic commodities such as alcohol even more difficult. Even before the digital media revolution, the pushback of industry interests against the more restrictive marketing-control measures such as France's Loi Evin or Canadian marketing restrictions was strong, sustained, and often successful.

In an Australian context, the dominant regulatory model for industries like alcohol became "co-regulation", which meant in practice self-regulation: the Alcohol Beverage Advertising Code's Management Committee has 4 members from industry and one from the government (Pierce at al. 2019). Intellectually, the self-regulatory model is backed up in Australia by the "responsive regulatory pyramid", an artefact of the dominant Australian model for governance of business, in which the first-choice solution to regulatory needs is always a "dialogue-based approach", with the regulated industry present at the policy table (Braithwaite, 2011). But for politically powerful industries like those making and trading in alcohol, such a model does not serve the interests of public health and welfare. The problems have become compounded in the digital era, with control of digital media content no longer a matter just for the national level, and the digital media giants seeking to ensure that their algorithms and other tools of their trade remain beyond the reach of national governments.

First steps: moving beyond self-regulation in Australia

While uncertainty surrounds the best path forward for the regulation of digital marketing in Australia (as far as the substantive content of regulation is concerned) – one thing is abundantly clear. Optimal outcomes for reduced alcohol marketing exposure, as well as reduced harm from alcohol marketing messages, are best achieved when regulations are statutory and legislated (Esser & Jernigan, 2018), accompanied by an independent regulatory body with sufficient funding and the power to sanction violations. As previously discussed (see section 5), the current framework of industry-managed regulation in Australia fails to meet these standards.

The 'best buy': a comprehensive ban on alcohol advertising

Comprehensive bans across media types, without exemptions, are undoubtedly the optimal policy option. There are two main reasons for this:

(1)   *Comprehensive bans have the greatest impact on the volume of alcohol exposure (via marketing) – an important determinant of consumption and alcohol-related harm*.

(2)   *Comprehensive bans are easier to implement, monitor and enforce.*

Compared to partial restrictions (e.g., regulation limiting the range of permitted content), comprehensive bans reduce the potential for ambiguity in the application of a regulation. In other

words, it is much easier to identify and sanction violations if *all* alcohol advertisements are prohibited. As has occurred in France with the Loi Evin, partial restrictions result in the alcohol industry challenging the interpretation of legislation (e.g., what constitutes an appealing advertisement for children, etc.), and in a running battle over the dividing line of what is acceptable.

(3) *Comprehensive bans would reduce the threat of online behavioural and targeted alcohol marketing, without the need for complex data privacy legislation.*

As previously discussed, the use of personal data to tailor alcohol advertisements and messaging is especially troublesome. While there are some promising legislative frameworks (cf. the EU's GDPR, discussed above), there are immense implementation challenges with data protection and privacy laws. Current approaches are rights-based and contingent upon individuals responding to the collection of their data on a case-by-case basis. Thus, completely prohibiting the use of personal data for alcohol advertising purposes would simplify the task of regulators.

When total bans are not feasible: the case for statutory content restrictions and partial bans

While reducing the *volume* of exposure to alcohol marketing is a chief aim, it is also important to consider the way in which alcohol is portrayed. As noted previously (see section 2), alcohol marketing can also manipulate alcohol norms and cognitions. Given this, content restrictions such as those described above (cf. the Finland case study and France's Loi Evin), can reduce the overall impact of alcohol advertising exposure. In other words, not all alcohol exposure is equally damaging. For example, it is particularly important to limit content which appeals to children and adolescents.

Limits on advertising and promotion should be regulated and enforced by an independent agency responsible to a department oriented to protecting consumer welfare

To replace the Alcohol Beverage Advertising Code and its Management Committee, an independent agency is needed, with substantial protection from industry pressures, and in the jurisdiction of a department with expertise in regulation to protect consumer welfare. Recent experience in control of digital and other marketing in parallel areas should be drawn on, such as the regulation of gambling marketing at the federal level by the Department of Social Services and the Australian Communications and Media Authority.

In intergovernmental discussions about governance of the internet and of digital platforms, the Australian government should push for inclusion of public health and welfare considerations in international governance of the web content and procedures, and for the ability of national governments to monitor and regulate the availability in their jurisdiction of content deemed harmful to public health and welfare.

Hit 'em where it hurts: regulations should be accompanied by the threat of hefty sanctions

Even if an independent agency is established with broad investigative powers and the legislative authority to sanction violations, Big Alcohol and Big Tech may continue to violate restrictions. Recent history is replete with examples of strategic non-compliance, whereby the relative benefits from violating regulations are perceived to outweigh the costs. In other words, sanctions can become just another cost of "doing business". Consequently, it is important that legislation includes provisions for fines that are commensurate with the size and power of

corporations such as Facebook. This is optimally achieved by including provisions, such as those stipulated in the GDPR, that ensure fines are calculated as a percentage of annual revenue, rather than a set value. For example, the GDPR stipulates that fines can be either up to 20 million Euros or 4% of annual revenue – whichever is greater.

Expenditures for advertising and promotion should not be deductible, either at all or beyond a limit

From a public health and welfare perspective, the message has become clearer in recent years. In terms of the health of the drinker, harmful effects outweigh any protective effects for most or all drinkers, and the harms to others from drinking are greater than for any other psychoactive substance. There are strong arguments that public health and welfare would be best served by an absence of advertising and other promotion of alcohol. It would therefore be in the public interest to decide that expenditures for advertising and promotion for the product should not be deductible, either at all or beyond a specified limit, in calculating profits for the corporation tax. This is an easy argument to make for all advertising and promotion that is already banned. But it can be extended beyond that, to argue that advertising and other promotion of a product that is inherently risky and causes a great deal of harm should not receive what is essentially a government subsidy, by being deductible in calculating profits from its sale. Consideration should be given, too, to hypothecating the extra revenue such a limit would yield, so that some or all is used in the prevention of harms from alcohol.

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