

COMMENTARY



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Alcohol corporations and the metaverse: Threats to public health?

Harmful product producers, such as alcohol companies, are exploring and already active in the metaverse [1]. Much in the same way as alcohol companies have used digital media platforms to embed alcohol into young people's lives [2–7] and shape behaviour through an all-encompassing marketing environment [8], alcohol company activities in the metaverse that similarly foster excessive consumption and addictive behaviour [9] may pose new and greater risks for young people and other vulnerable groups, accelerating the need for a regulatory response to alcohol marketing.

The simplest way to describe the metaverse is as an immersive next-generation version of the internet using virtual or augmented reality technology [10]. The metaverse is a digital immersive reality that combines aspects of social media, online gaming, augmented reality (a digital overlay projected on the real world) [10], virtual reality (accessed using a headset to see and operate within a digital world) and cryptocurrencies [11, 12]. It is a fast-evolving collection of interactions, technologies and business models that will look very different from today's internet [13].

While the metaverse is still young, in the future there may be numerous sophisticated metaverses, providing the infrastructure, especially bandwidth, can be developed to support them [12]. The metaverse will be an observable digital universe made up of millions of digital galaxies (metaverses/platforms) [14]. Each metaverse will likely be designed based on the needs it serves, for example, Meta (previously Facebook) anticipates friends socialising [15] while others envision a place parallel to the physical world where you spend your digital life [16]. The metaverse will offer innovative and expansive economic opportunities for corporations and users alike. The ultimate vision for the metaverse is a world that has its own fully functioning economy, jobs and shopping centres [17] or, in other words, platforms for human leisure, labour and existence in general [10]. Metaverses in which alcohol companies are active will be relevant for public health.

Alcohol corporations are developing innovative ways of embedding alcohol into consumers' lives in the metaverse [18]. They were early movers in previous digital technologies and similarly are engaging with the metaverse in its development. Not only will alcohol advertising be more immersive compared to social media platforms and therefore more impactful, but also young people and other vulnerable groups such as those on a path to becoming heavy drinkers will likely be targeted for advertising, much as they are now in social media digital spaces but with expanded access to and analysis of their individual data. These can include the use of biometrics such as heart rate, tracking eye movement and pupil dilation, which are required to produce the immersive experience of virtual reality but can also be used to identify a user's interests and buying preferences [19].

The metaverse can facilitate the integration of virtual and real-life consumption experiences. Like social media, the metaverse may utilise targeted advertising and consumer participation, integrating them with purchasing [20–22] and delivery in real-time to consumers. One company has already linked their virtual drinks to their real-world products where buyers are sent a six-bottle case of actual vodka [23]. These processes will likely be enhanced in the metaverse as e-commerce will evolve into i-commerce (immersive commerce) [13]. Users (as avatars) will be able to enter a virtual alcohol shop or wine retailer and interact with the store avatar. Each bottle will tell you about itself—before you make a physical decision to purchase [13], after which a rapid delivery service may deliver alcohol to your location. Rapid online alcohol delivery is already expanding in many countries and is of concern as it is under-regulated [24]. Consumers will be able to go to virtual bars and buy virtual drinks [25]. Miller Lite is opening its first virtual bar and Heineken has opened a virtual brewery in Decentraland [26, 27]. Young consumers are already interacting in virtual bars in the metaverse [23].

The metaverse can allow for enhanced engagement with alcohol marketing. Engagement with merchandise

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will be facilitated by branded items being created in collaboration with upcoming Non Fungible Tokens artists (Non Fungible Tokens are blockchain-based tokens that each represent a unique asset like a piece of art, digital content, media or land title) [11], as well as new ways to encourage engagement via consumer-driven and viral advertising [28]. Brands do not necessarily expect the end result to be an immediate purchase; the bigger win is the chance to build a brand pathway, develop a relationship and engage in deeper dialogue with audiences that turns users into followers, customers and, hopefully 1 day, brand evangelists [29].

The metaverse could boost the impact of techniques already used by marketers. Influencers on social media have the power to affect purchase decisions of others because of their authority and popularity [30]. The metaverse will allow influencers to interact in 3D, to hold alcohol-branded events, concerts or virtual parties. Celebrities, famous musicians and users could be invited and attend. The power of influencers, paid for by alcohol companies, is likely to be magnified in an immersive environment and the metaverse will provide new ways to 'influence'.

Manipulation exploiting psychology and our reward system could be used in the metaverse [31] given these tactics are already employed on social media [9, 32]. One example is dark advertising exploiting cognitive bias [33] or dark patterns to create a cycle that provides unpredictability, which gives consumers dopamine hits [34]. In social media these are likes and shares, or the excitement of seeing what's new in the feed. In the metaverse, there will be unpredictability in 3D [34]. Unpredictability can include attending an alcohol branded concert or alcohol sponsored party to meet celebrities. Consumers can be a part of any exciting event they choose, which can then elevate dopamine levels [34]. The 'addiction by design' techniques already harnessed on social media by global industries producing harmful products [9] will likely become more innovative and exacerbated in the metaverse.

Behavioural scientists have raised the need to scrutinise the development of the metaverse given the enhancement of the negative aspects of social media [34] and because commercial interests have also recognised the potential impact of these concerns and responded accordingly. The social media platforms most involved in the development of the metaverse, including Facebook, now renamed Meta, have recognised the potential concerns of regulators in relation to issues such as data privacy. Facebook has established a research fund to collaborate with 'policymakers, experts and industry partners to build the "metaverse" in a responsible manner'. This includes engaging with academic institutions on issues such as biometrics and human computer interaction and privacy models in the context of wearables such as virtual reality headsets [35].

While the metaverse is still in its early stages of development, public health needs to understand the metaverse. How will producers of harmful products target, engage and capture the attention of young people in the metaverse? What will the health impacts be? Or will young people drink less because they spend their time in the metaverse engaged in other activities, such as investing in Non Fungible Tokens or property, or socialising? Public health also needs to learn lessons from the failures to regulate alcohol on Facebook, Instagram, Twitter and social media generally.

Many metaverses are being developed by private companies in the current unregulated environment, which means the problems we have regulating technology companies now could be reproduced and amplified in the metaverse [36]. Relying on self-regulation by corporations has been shown to be ineffective [37]. Prohibiting alcohol marketers from using user-generated content and distributing content that is intended to be shared by consumers, such as in Finland, does not affect marketers' ability to increase consumer engagement—the most important aspect of marketing in terms of effectiveness [38]. While some countries have bans on alcohol marketing online including social media, no good evaluations have been completed [39]. Other metaverses are user owned, where users may have the rights to sell direct ads [40] and it is not known how these could be regulated.

Policy makers need to understand the metaverse and the potential challenges it poses to public health. Early research documenting developments is needed to avoid the same failure to act in time, as happened with social media [36]. While early engagement with the creators and owners of metaverses may lead to enhanced user safety, it is more likely government regulation will be needed, including a global treaty. What is certain is that we cannot let the metaverse develop unscrutinised, nor without effective strategies to protect the health and well-being of young people.

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CONFLICT OF INTEREST

None.

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