

THE PSYCHOSOCIAL IMPACT OF GAMBLING IN VIRTUAL REALITY



Dr. Mark Griffiths
Professor of Behavioural Addiction
International Gaming Research Unit
Nottingham Trent University

Early in my research career, I speculated that ‘virtual reality addiction’ was something that psychologists would need to keep an eye on. In 1995, I coined the term ‘technological addictions’ in a paper of the same name in the journal *Clinical Psychology Forum*. In the conclusions of that paper I asserted:

“There is little doubt that activities involving person-machine interactivity are here to stay and that with the introduction of such things [as] virtual reality consoles, the number of potential technological addictions (and addicts) will increase. Although there is little empirical evidence for technological addictions as clinical entities at present, extrapolations from research into fruit machine addiction and the exploratory research into video game addiction suggest that they do (and will) exist”.

Although I wrote the paper over 20 years ago, there is (as yet) little scientific evidence that individuals have become addicted to virtual reality (VR) applications such as gambling, gaming, and sex. However, that is probably more to do with the fact that – until very recently – there had been little in the way of affordable VR headsets.

According to a 2016 report by Juniper Research, VR gambling wagers are expected to increase 800% in the next five years driven from \$58.5 million in 2016 to \$520 million in 2021, and that VR gambling deployments will revolve around putting the player in an immersive casino experience (Juniper Research, 2016; Kharpal, 2016). Obviously, these figures are ‘best guess’ estimates and will depend on the cost of the hardware and the number of early adopters that are enthusiastic about gambling as an enjoyable VR application. However, VR’s potential in mass commercial markets does appear to be finally taking off because of mass-produced and seemingly affordable hardware such as Oculus Rift, HTC Vive, PlayStation VR and the (ultra-cheap) Google Cardboard (in which a smartphone can be inserted into cardboard VR headset frame).

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My own view is that three markets are likely drive sales, and they all happen to be areas that I research into from an addiction perspective – video gaming, gambling, and sex. I’ve noted in many of my academic papers over the years (particularly my early papers on online gambling addiction and online sex addiction) that when new technological advances occur, the sex and gambling industries always appear to be the first to invest and produce commercial products and services using such technologies, and VR is no different.

When it comes to any activity becoming a repetitive long-term behaviour, the activity has to be reinforcing, arousing, and rewarding. Sex and gambling are two activities that have such a potential. In the gambling world, the most obvious application of VR is in the online gambling sector. I can imagine some online gamblers wanting their gambling experiences to be more immersive and for their online gambling sessions to be more akin to gambling offline surrounded by the sights and sounds of an offline gambling venue. There is no technical reason that I know of why people that gamble via their computers, laptops, smartphones or tablets could not wear VR headsets and be playing poker opposite a virtual opponent while still sat on the sofa at home.

In a paper that I recently co-authored about online sports betting (i.e., Lopez-Gonzalez & Griffiths, 2017), we noted that the hyper-technologized sports terrain, particularly when it comes to elite sports, has been predicting the arrival of virtual and immersive technologies for over 10 years (see Katz et al. [2006] for such an example). The vantage position of sportspeople in the game was emulated by utilizing on-board cameras in cycling and motor sports. Multi-camera set-ups promised fans personalized viewing with angle and viewpoint selection in their hands, as well as 3D features created to revolutionize the sports experience. However, the public turned out to be far more conservative than anticipated about the best way to consume sports. Screens became bigger and ultra-defined, but immersive realities like 3D have – to date – appeared to have failed to engage the spectator.

The next generation of virtual reality headsets (e.g., Oculus Rift, HTC Vive, PlayStation VR and Google Cardboard), not specifically designed for media sport consumption, might have in sports betting a way to penetrate the market. Applied to gambling, virtual reality could facilitate the transition from gambling to gaming accentuating the adventure and joy components. For its horse racing market, William Hill has experimented with a merge between GPS data and virtual reality. Bettors can watch an online simulacrum of the actual race, built by real world live data, in a virtual environment where fans can impersonate the jockey (Davies, 2015). Theoretically, strategies such as immersive realities could pose a threat for gamblers. A deeper immersion could augment the illusion of control of bettors as their betting experience switches from a passive to an active

exercise, resulting in a bigger involvement with the events bet upon. This involvement could be interpreted by the bettor as playing a bigger role in the outcome of the race, emphasizing the correlation between skills and outcome (Tobias-Webb et al., 2017).

Many industry insiders see VR gambling as one of the key areas that gambling operators are investing in to ‘hook’ the Generation Y ‘millennials’ into gambling. For instance, Paul Swaddle (CEO of Pocket App) noted:

“We already know that participation in online gambling is snowballing, so if the entertainment industry can use VR to simulate the experience of being inside a video game, or social media sites can give you the opportunity to not just see your friends’ pictures, but to walk through them, why shouldn’t online casinos be able to do the same? VR may actually be the hook that mobile and online casinos need to draw in more millennials, with the average age of players in mobile casinos currently being 40 [years old], and the average age of mobile gamblers in general being 35 [years old]. Millennials simply aren’t engaging with mobile and online casinos to the same extent as older generations, and I suspect that this is down to younger players being much more used to immersive and sociable gaming, as a result of the cutting-edge developments that are being constantly rolled out in the video gaming industry” (Swaddle, 2016).

I agree with Swaddle’s observations as the gambling industry are constantly thinking about the ways to bring in newer players. Today’s modern screenagers love technology and do not appear to have any hang-ups about using wearable technology including Fitbit and the Apple Watch. As Swaddle goes on to say:

“By using VR technology to transport players and their friends to exciting locations for their online gambling experience, such as a famous casino in Las Vegas, or a smoky basement room in 1920s New York, or even to the poker table in the James Bond film Casino Royale, mobile and online casinos may stand a better chance of drawing in younger audiences if they use VR to gamify the casino experience” (Swaddle, 2016).

Again, this makes a lot of sense to me and I wouldn’t bet against this happening. Swaddle thinks that such VR gambling experiences will become commonplace in the years to come and that the gambling industry needs to get on the VR bandwagon now. However, Andrew Daniels, the Managing Director of the mobile app company Degree 53 says that although there have been many great gaming innovations in recent years, there are products that don’t meet user expectations and offer “a seamless gambling experience” (Daniels, 2017). He noted that at ICE 2017:

“We saw a few companies offering a VR@casino experience for playing games, from VR roulette to simulating an entire casino lobby.

It's a great marketing tool to attract people to the booth and introduce products via the latest tech, and it adds some fun to the business, but it may be trickier to sustain this in a conventional customer journey. VR is at too early a stage to really be available everywhere, as not everybody has a headset due to their high price and hefty hardware requirements. Gambling is something many would also prefer to do in private without any hassle – registering and starting a game as quickly as possible is key. Unfortunately, having to wear a VR headset adds extra effort and time. VR needs more development and it may take a while for it to become a household item to be used on a daily basis, and making it part of a gaming service may not be for everyone at this point” (Daniels, 2017).

Microgaming is one of the gaming companies that have been developing prototypes such as VR roulette. Neil Whyte, their Head of Product Channels has said they are investing in such technology because “the opportunities are boundless” and that segmentation will occur based on the wants and needs of various consumers (Whyte, 2016). More specifically he asserted that:

“Die-hard gamers will most likely embrace the Oculus Rift, which can provide the most stunning and powerful 3D experience. On the downside, the headset requires powerful hardware to run and has to be tethered to a PC. The significant investment required will not appeal to all. For the more casual player, there's the Samsung Gear, which is cable free but is only compatible with the Samsung phone, therefore limiting its reach. No doubt that's a smart ploy by the company to get people to upgrade their phones. And the most cost-effective VR device is Google Cardboard, which can be purchased online for just a few pounds...From a development and content perspective, it's important to understand what devices will appeal to which gamers. Then it is essential to develop content that is relevant and applicable, harnessing the power of the device. Content is king” (Whyte, 2017).

Nick Jakubowski of BingoMania recently wrote an article about VR for gambling and bingo. He believes that VR offers “an unparalleled opportunity to bring gaming experiences to people in the home” (Jakubowski, 2016). He also believes that VR can overcome some of the limitations of current online gaming apps. More specifically he claimed that with gaming apps there is no sense of reality or connection with the other individuals that the gambler is playing with and that the interface is limited. He believes that virtual bingo halls could open up the VR gambling market. His reasoning is that:

“Many states that have restrictions on gaming have lower restrictions on bingo due to its history as a fundraising game. But beyond that, bingo is a social game that's ripe for someone to come in and create a killer VR app. Online bingo halls like BingoMania push the social aspect of their gaming rooms. Players are able to chat with each other all over the world while the game is in progress. In fact, many players just let the bingo software play the game in the background while they converse. There are also social proof markers such as point systems and rankings to show which players are dedicated and which are dilettantes. You can see these same sorts of systems in popular non-monetary social games. But there are several elements that prevent online gaming from becoming as real as walking into your local bingo hall. First, you can't see or talk with the other players like you would with a real person. Second, there's no interaction with a caller. The caller is not just responsible for pulling numbers out and running the game. They are also an entertainer. Bingo slang and audience banter keep players playing. There's no sense of gaming space either. No lucky seats. No watching others perform lucky rituals. No audience noise from players dabbing with paint pens

across their cards. VR bingo could do more than just replicate the traditional bingo hall” (Jakubowski, 2016).

Alexandre Tomic, the co-founder of ALEA.com, recently launched a multiplayer VR casino (SlotsMillion) that allows gamblers to select their own avatar to walk around a futuristic virtual casino and play up to 40 different slot games. He admits that the financial entry point for current punters is high but that it won't be long before VR headsets reach a critical mass in terms of affordability. He believes (like Paul Swaddle above) that millennials will be the key to the uptake of VR gambling in the near future:

“Beyond the obvious novelty of VR and its potential to increase player engagement, it can also change the way operators interact with players...This level of personalised experience has become the basic expectation for the all-important Millennial segment that will drive the adoption of VR. Recent figures from the UK Gambling Commission have shown that 18-24-year-olds are actually gambling less than they were two years ago, so engaging with them through new technology is one way to turn the tide...For example, while SlotsMillion serves as the world's first VR casino, the next challenge is to create VR slots themselves. Imagine a slot that allows a player to walk around inside, with the reels floating in front of them and different features activated depending on the player's actions and movements. This will be an entirely new proposition in terms of immersion and engagement” (Tomic, 2016).

As far as I am aware, there has been no empirical research carried into the psychosocial impact of VR gambling. However, there have been a number of studies that have developed VR gambling environments as a way of possibly treating problem gamblers in the future (e.g., Giroux et al., 2013; Loranger et al., 2011; Park et al. 2015). Given that problem gamblers often get cravings and urges to gamble when they see gambling-related stimuli, some treatment techniques try to desensitize problem gamblers by repeatedly exposing them to gambling situations and not letting the problem gamblers spend money. However, this can be very time intensive and not always cost-effective if therapists and their clients have to actually travel to a gambling venue. By developing VR gambling venues, such therapy sessions could take place without the need to actually go to a gambling venue. In all of the published studies to date, the researchers have designed VR gambling environments – typically VR casinos – and have used non-problem gamblers to see if their cravings to gamble are similar to real gambling venues. Results to date have indicated that VR gambling venues have a lot of ecological validity and that the physiological and psychological feelings experienced in VR gambling environments (e.g., cravings) can be induced just as easily in VR gambling environments as real ones. However, what these studies also show is that potential problem gamblers might be just as susceptible to developing a problem in VR gambling environments as in real environments – although this shouldn't come as any surprise given the small minority of individuals who have online gambling problems (Griffiths, 2003; Canale et al., 2016).

The whole VR entertainment area is clearly still in its infancy but many stakeholders including academic researchers, treatment providers, policymakers, regulators, and the gambling industry itself are all waiting to see whether VR gambling will take off. If it does, there will always be a small minority that will develop problematic behaviour, but at least we can start to think about embedding social responsibility infrastructures from the outset. ::CGI



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DR. MARK GRIFFITHS

Dr. Mark Griffiths is Professor of Behavioural Addiction at Nottingham Trent University, and Director of the International Gaming Research Unit. He is internationally known for his work into gambling and gaming addictions. He has published over 550 refereed research papers, five books, 130+ book chapters and over 1000 other articles. He has won 15 national/international awards for his work including the US National Council on Problem Gambling Lifetime Research Award (2013).