

DIGITAL IMPACT, CROSSOVER TECHNOLOGIES AND GAMBLING PRACTICES

BY MARK GRIFFITHS

At this juncture it is instructive to review the convergent media forms as a starting point for a wider debate about the pervasiveness of games technologies and gambling practices. In particular, to focus upon convergences between gambling and gaming and while highlighting the advantages, to examine some of the potential concerns that may arise. It is notable that gaming is becoming a powerful and popular media form, to the extent that some games are being considered as interfaces to a wide range of digital and multimedia content.



The idea of media convergence – that all modes of communication and information will converge into a digital nexus – has been around for nearly three decades (Mueller, 1999). Pool coined the term 'convergence of modes' leading to his conceptualisation of media convergence as a process of blurring the lines between media (Pool, 1983). He noted that the traditional separation between different media was collapsing due to the growing use and influence of digital electronics. In the current digital technology landscape, the process of 'blurring the lines between media' is becoming more apparent with the uses and applications of gambling practices and computer gaming technologies.

The uptake and use of games in associated leisure contexts such as gambling indicates the level of interest in game-based activities. In general, the flexibility of the medium, the wide application of the formats, and the immersive and interactive qualities have made interest in using game technologies for many purposes including educational activities and leisure-based activities (e.g., gambling).

Convergence between gambling, games and emerging technologies such as mobile and interactive television has considerable scope for development, with the reach of mobile gambling and gaming offering a significant market, and potential of crossover with new interfaces such as 'augmented reality' (e.g., virtual reality headsets) offering greater flexibility in terms of promoting gaming experiences away from the desktop computer.

Broader issues promote key questions not just about gaming but also about the trends of convergence matching innovation and significantly increasing numbers of users/players. If the fastest innovations are in areas of overlap

between different media, the potential for future gambling and gaming opportunities may continue for a long while to come.

INTERACTIVE TELEVISION

In recent years, the television industry has invested heavily in digital infrastructure in anticipation of the predicted financial boom that was to come from interactive television (i-TV). However, revenue from i-TV has been relatively slow to materialise. Despite this relatively slow start, industry analysts (e.g., Wise & Hall, 2005) believe i-TV will bring financial rewards for the television industry. Early i-TV revenue projections forecast robust growth in interactive advertising and television-based commerce but are unlikely to be as lucrative as consumer-driven applications, such as video-on-demand.

To flourish in an evolving digital landscape, television companies are formulating strategies for targeting particular segments of the industry. Platform operators appear to be deploying consumer-driven applications, such as gambling and gaming. They are creating an environment where

content originators and channel operators can innovate and profitably create interactive broadband content. Interactive television is seen as a way of rapidly expanding gaming and gambling, because of its naturalness and ease of use.

Interactive television gaming covers a wide range of activities. This includes such activities as playing video games like *Tetris*, and playing along with television game shows like *Who Wants To Be A Millionaire?* There appears to be an increasing wave of interactive television applications aimed at viewers drawn to the allure of gambling. This interest in all things interactive directly results from growing competition between Internet service providers, satellite TV, and cable-TV outfits. All these different providers are looking for features to differentiate themselves. One of the most potentially lucrative vehicles for this has therefore been interactive television gaming and gambling.

Lots of companies have done well financially in Europe and Asia where more than 30 percent of television shows have an interactive element to them. Television gambling is particularly popular in Europe. Interactive Systems Worldwide (ISWI) was one of the first companies to develop



interactive television play-by-play betting system. Their software system enables interface between *SportXction* and the satellite television broadcast of its first interactive television partner. *SportXction* is a patented, real-time, software system that allows TV viewers to make play-by-play gambles on a sporting event while the event is in progress.

Gambling can be conducted while viewing a live or televised sporting event, or listening to it on the radio. The wagers offered are mostly oriented to short-term action like the penalty kick, or whether the next play will be a run or a pass. The wagers have odds associated with them, which relate to the probable outcome of the proposition being wagered upon, and the odds are adjusted in real time to balance the pool using proprietary artificial intelligence software to reflect player sentiment, as derived from the betting patterns. The system can be used with virtually any sport.

Many media service providers' networks still need work to enable cutting-edge interactivity like multiplayer gaming but this is likely to happen at some point. Digital pay-TV software makers are beginning to roll out technology that can enable feature-rich games even on a 'primitive' set-top box. Using software that sits on a provider's server, games can be made graphically complex (e.g., game sequences that give the viewer an impression of flying through a house). Exactly how successful interactive television gambling and gaming will become cannot be answered at present.

MOBILE CROSSOVER

The crossover between games and mobile devices including mobile phones, PDAs and handheld games players (e.g., *PlayStation Portable*) is becoming a topic of eager interest in a variety of contexts. Mobile devices have been seen as a device waiting for an application. Gambling and gaming offer the levels of engagement and content generation that could be ported fairly easily onto these kinds of devices. Several existing examples of the use of games and mobiles are being piloted in a range of contexts.

Gaming has taken another step towards convenience with the advent of mobile phone gambling and gaming. This is gaming on the move, whenever and wherever. Obviously, mobile gambling and gaming via handheld consoles has been around since the early 1990s but it is only more recently that wireless networked gaming has emerged. Since it is unnatural to be always near a computer or console, handheld devices (including mobile phones) make the medium convenient for mobile gambling and gaming. A player/gamer can be occupied by gambling/gaming whenever they have time to spare, for example whilst in transit and during work breaks. These activities have helped satellite and cable television, video, and the Internet. The wireless world of the mobile phone may not be too different. The most successful communities look to 'mobilise' and then 'monetise' (Griffiths, 2004).

Gamers are 'techno-savvy' to begin with, and are likely to be less cautious with new forms of technology. Mobile phone gambling and gaming is anonymous, and can provide immediate gratification, anytime, anywhere. Such facilities are easily provided by the web-enabled third generation (3G) mobile phones, and the appropriate software. It is predicted that with fourth generation (4G) mobile phones, gamers will be able to play more graphically interesting games. Within the next few years, the limiting aspects of the technological

and protocol demands of mobile gaming (graphics, sound and displays) will be largely resolved, with the advent of 4G mobile devices.

The penetration of wireless mobile gambling and gaming will mostly be contingent upon the market penetration of wireless web users in general. The mobile phone market is already large in many parts of the world. The number of international mobile phone users is set to pass the two billion mark (Griffiths, 2007). Research by *Mintel* highlighted that mobile phone revenues from mobile gambling and gaming are increasing rapidly. According to *Mintel*, by 2009, mobile gambling is set to generate \$3bn in the US alone (Griffiths, 2007). The new generation of mobile phones already have the capability to play typical 'casino style' games like blackjack, poker and slots. The limiting aspects of the technological and protocol demands of mobile gambling (graphics, sound and displays on mobile and personal digital assistants devices are largely being resolved through technological advance.

These advances will allow punters to watch sporting events live on their phones while wagering in real time. Consider the following scenario. A betting service that knows where you are and/or what you are doing has the capacity to suggest something context-related to the mobile user to bet on. For instance, if the mobile phone user bought a ticket for a soccer match using an electronic service, this service may share this information with a betting company. If in that match the referee gives a penalty for one team, a person's mobile could ring and give the user an opportunity (on screen) to bet whether or not the penalty will be scored. On this type of service, the mobile phone user will only have to decide if they want to bet, and if they do, the amount of money. Two clicks and the bet will be placed. Context, timeliness, simplicity, and above all user involvement look like enough to convince also people that never entered a bet-shop.

Manchester United soccer club has transformed itself into a powerful media company. It has launched its own digital TV channel, signed up a host of big-name technology partners (including *Vodafone*, *Sun*, *Lotus*, *Informix*), and started an ISP service. Their partnership with *Vodafone* is perhaps a sign of the shape of things to come. In addition to sponsoring the club's kit, *Vodafone* will also get the chance to develop co-branded mobile services with the club. This will offer users access to content similar to their website (receiving real-time scores and team news via SMS). What they are heading towards is their ultimate goal - live video of matches, straight to mobiles, anywhere in the world.

While watching matches, users will be able to view statistics, player biographies, and order merchandise. So what does all this have to do with gambling? Mobility will facilitate an increase in 'personalised' gambling, e.g., the types of service offered by *Eurobet's Match* service, where bettors gamble against each other, rather than the house.

Gambling will become part of the match day experience. A typical scenario might involve a £10 bet with a friend on a weekend football match. The gambler can text their friend via SMS and log on to the betting service to make their gamble. If the friend accepts, the gambler has got the chance to win (or lose). Football clubs will get a share of the profits from the service. Clubs are keen to get fans using branded mobile devices where they can simply hit a 'bet' button and place a wager with the club's mobile phone partner.



The penetration of wireless gambling will mostly be contingent upon the market penetration of wireless web users in general. The mobile phone market is already large in many parts of the world. Juniper predicts that by 2009, mobile gambling revenues will be concentrated in Europe (37 percent) and the Asia-Pacific region (39 percent). They predict that North America will produce only 15 percent of global revenues because of government and societal opposition to wireless gambling. If these numbers are combined with the popularity of gambling, it could be speculated that there is the basis for a very profitable enterprise.

It is clear that mobile phone gambling and gaming is still a relatively untapped area and the functional capabilities of mobile phones are getting better all the time. Cell phones are rapidly growing in their functional capabilities. As the new generation of mobile phones accept Java programming, the high end graphic display can be used to deliver live video feeds for the various types of gaming. It appears that sophisticated mobile phone technology is increasingly able to integrate within our culture. This will have implications for the social impact and will need monitoring. Research by both Mintel and Juniper (Griffiths, 2007) raises the possibility that almost unlimited access to mobile phone gaming will lead to more problem gaming (although this includes gambling as

well as gaming). As we can see, potential social impacts always follow new developing markets. Mobile phone gaming is clearly an area that needs in-depth monitoring of the psychosocial impact over the next few years.

GAMING EVOLUTION

In some countries, video game technology has been used in gambling products for a number of years (such as some of *Loto Quebec's* use of videogame technology in lottery products in Canada). One very interesting development is that videogame players are now being paid to kill within gaming environments (Harper, 2007). On one level this can be seen as the next phase in the evolution of gaming as game developers are constantly looking for new ways to increase revenue. Since 2006, a number of servers aimed at the adult gaming market have launched services that pay videogame players every time they kill within the game they are playing. On one level, this activity is akin to some types of online gambling like online poker. As Harper (2007) points out, the prospect of gaining revenue "from playing videogames makes online poker seem as old-fashioned as its physical equivalent" (p3).

One of the legal implications of being paid to kill within the confines of a computer game is that the activity is defined as a skill-based (as opposed to a chance-based) activity and is

therefore exempt from the regulations set down in the 2005 Gambling Act. It is likely that more and more gambling companies will start to use videogame technology within their products and this will then become an issue that the Gambling Commission will almost certainly have to re-examine in terms of the gambling legislation.

Within online computer gaming one of the problems is that cheating can be common. Harper (2007) highlights the case of a 'semi-professional gamer' who played *Tournament.com* for several months but stopped playing in this gambling-type computer game because he claimed other players had installed third party computer programmes to help them to play well (and win more money as a consequence). The player reported to Harper (2007) that "it would take more than a month before (the gaming company) actually caught a cheater who ended up raking thousands of dollars from other gamblers" (p3). *Tournament.com* has now ceased trading but other gaming companies (such as *kwari.com*) are now setting up similar first-person shooter games and learning the lessons from those sites where allegations of cheating occurred.

On the *Kwari.com* website (<http://www.kwari.com/getinto/index.htm>) it says:

"Kwari has been designed with a singular purpose in mind – to give you the opportunity to translate your shooter skills into some serious cash. Everything about the game has been tailored to that effect, so much so that even an average player should be able to get ahead in the game quickly. Every time you hit another player in Kwari you make money. Every time you are hit by another player it costs you. Every shot counts. How much is down to the stake level you play in.

But this is not the only way to win. Doing damage to yourself, breaking crates, use of certain map features or picking up additional weapons, pickups and health packs may have a fractional cost attached. This cost is transferred between a series of jackpots, prizes and awards available in the game, all of which can be won by any player, regardless of the skill or stake level of game they prefer to play. At no point, however, does Kwari take any of this money. One hundred percent of the cash generated through playing the game goes back to the players in the form of prizes. The most frequent of these prizes is the Pill Jackpot, which is split between the

player who carries the Pill the longest, and the player who finishes the round with the Pill.

Other jackpots in the game are won by collecting Kwari keys which spawn regularly in the game until the prize has been won. Depending on the length of the key series required to win, different jackpots will pay out over different periods, ranging from one hour to six months, and once a jackpot has been won all the key chains for that prize start again."

Kwari.com make their money via subscriptions to play and is very similar to online poker sites who take a very small commission on winnings. *Kwari.com* says it wants to appeal to casual players who normally use online poker sites (Harper, 2007). They also claim that want people to play the game for no more than an hour two times a week and say they will put a cap on the amount a user can spend a month unless they have been vetted as suitable for their high-stakes tournament. These types of action are akin to the social responsibility practices found in more traditional online gambling sites and emphasise that these types of game are really forms of gambling in all but name. Many gaming companies will be observing whether sites like *Kwari.com* succeed financially. If it turns out to be a success a lot of the bigger computer game companies will want to get in on the act and could change the way people game online.

Another slightly different way that gambling and gaming have started to converge (and raise interesting legal questions) is in environments like the 'metaverse' *Second Life*. *Second Life* has its own currency (Linden dollars) that can be converted into real currency outside of the game. In the US, following introduction of the Unlawful Internet Gambling Enforcement Act (UIGEA), the question arose about whether it is technically illegal to gamble in the *Second Life* environment and then convert the winnings into real US dollars. As soon as *Second Life* was up and running, a number of online casino and online poker companies set up gambling operations in *Second Life*. As Duncan Calow of *DLA Piper* notes:

"Second Life exemplifies the challenge of translating real-world law into the digital arena. But with the emergence of virtual spending and gambling – not to mention the fact that organised crime is reportedly operating in some virtual worlds – where the lines

>> ONE OF THE LEGAL IMPLICATIONS OF BEING PAID TO KILL WITHIN THE CONFINES OF A COMPUTER GAME IS THAT THE ACTIVITY IS DEFINED AS A SKILL-BASED (AS APPOSED TO A CHANCE-BASED) ACTIVITY AND IS THEREFORE EXEMPT FROM THE REGULATIONS SET DOWN IN THE 2005 GAMBLING ACT. IT IS LIKELY THAT MORE AND MORE GAMBLING COMPANIES WILL START TO USE VIDEOGAME TECHNOLOGY WITHIN THEIR PRODUCTS AND THIS WILL THEN BECOME AN ISSUE THAT THE GAMBLING COMMISSION WILL ALMOST CERTAINLY HAVE TO RE-EXAMINE IN TERMS OF THE GAMBLING LEGISLATION >>

should be drawn has become increasingly blurred" (p.1; cited in Wade [2007]).

However, it is a mistake to think that the law only exists outside of virtual worlds. As David Naylor of the law firm Field Fisher Waterhouse LLP says:

"There may sometimes be questions about which jurisdiction's laws apply to a particular matter, and there can certainly be some enforcement issues, but statutes and case law have shown that national governments and courts do not take the view that just because something is done digitally, it is unregulated. Second Life and the conduct of people who inhabit it are undoubtedly subject to law" (p.1; cited in Wade [2007]).

CONCLUSIONS

Clearly convergence is playing an informing and reinvigorating role in gambling and gaming and beginning to subvert 'traditional' gambling forms. While there are many advantages of convergence in a wide variety of contexts, there may be some disadvantages for those who use convergent technology excessively. However, the potential downsides need to be examined in the overall context (de Freitas & Griffiths, 2008).

The rise and challenges of gambling and gaming cannot be seen in isolation particularly as there is ever-increasing multi-media integration between the Internet, mobile phones, and interactive television (i-TV). On a commercial level it may be that people are more likely to spend money in particular interactive media. For instance, Griffiths (2003) noted that the Internet can be described as a 'lean forward' medium. This means that the user (who is usually alone) takes an active role in determining what they do. Computers are better at displaying text than television and have a wider range of fine-tuning controls through the mouse and keyboards. This makes them more suitable for complex tasks such as obtaining insurance quotations or travel itineraries. In contrast, the television is a 'lean back' medium where the viewer (often as part of a group) is more passive and seeks less control over what is going on. The television is better at displaying moving images than computers or mobile phones. This may have implications for the types of gaming done in particular media.

It has also been argued that i-TV may also help in one other important area – *trust* (Griffiths, 2003). People appear to trust their television even though it is accessing the Internet in the same way as a computer. However, as argued above, i-TV is a "lean back" service. If a person is relaxed sitting back on their sofa, it will make television the key to creating a true mass market for online commercial activity (including gambling and gaming). In addition, some i-TV services can be linked to actual television programmes. Browsing and playing games by i-TV are still in its infancy but look set to expand significantly in the future.

As has also been noted, gambling is a behaviour that is engaged in inside many different metaverses including popular online games like *Everquest*. The rise and challenges of convergent gambling and computer gaming cannot be seen in legal isolation given the ever-increasing multi-media integration. The examples of convergent gaming in this article highlight that commercial operators always appear to exploit new market opportunities in emerging media and that they

are often two steps ahead of current legislation. Given these new types of gambling experience fall outside the new Gambling Act, this – at the very least – is an area that will need monitoring in terms of social responsibility by the gaming operators.

It is clear to see that evidence of the media convergence with gaming technologies and applications is leading to growth particularly in the areas of overlap, as we have seen with Internet gaming applications. There is clearly a need for research in the area both within and across disciplinary boundaries. Convergent gambling and gaming is of potential interest to many stakeholder groups including researchers and the gaming industry. Research needs to be carried out on both the potential advantages (e.g., the increased fun and excitement for the players, increased revenues for the gaming operators) and potential disadvantages (e.g., the psychosocial impact of excessive use). **CGI**

REFERENCES

- de Freitas, S. & Griffiths, M.D. (2008). The convergence of gaming practices with other media forms: what potential for learning? A review of the literature. *Learning, Media and Technology*, 33, 11-20.
- Griffiths, M.D. (2003). Internet gambling: Issues, concerns and recommendations. *CyberPsychology and Behavior*, 6, 557-568.
- Griffiths, M.D. (2004). Mobile phone gambling: preparing for take off. *World Online Gambling Law Report*, 8(3), 6-7.
- Griffiths, M.D. (2007). Mobile phone gambling. In D. Taniar (Ed.), *Encyclopedia of Mobile Computing & Commerce*. pp.553-556. Pennsylvania: Information Science Reference.
- Harper, A. (2007). Pay-per-kill shooters combine online gambling with gaming. *The Guardian* (Technology Supplement), November 22, p.3.
- Mueller, M. (1999). Digital convergence and its consequences. *Javnost/The Public* 6(3), 11-27.
- Pool, I.D.S. (1983). *Technologies of Freedom*. Cambridge, Massachusetts: Harvard University Press.
- Wade, A. (2007). Blurred boundaries. *The Guardian* (Digital Media Law Supplement), December 10, p.1
- Wise, T. & Hall, D.A. (2005). *Interactive TV Services: Take Advantage of Time to Define Roles, Identify Capabilities*. Located at: http://www.accenture.com/Global/Research_and_Insights/Outlook/By_Alphabet/InteractiveCapabilities.htm.

MARK GRIFFITHS



Dr Mark Griffiths is a Chartered Psychologist and Europe's only Professor of Gambling Studies (Nottingham Trent University). He has won many awards for his work including the *John Rosecrance Research Prize* (1994), *CELEJ Prize* (1998), *International Excellence Award For Gambling Research* (2003), *Joseph Lister Prize* (2004), and the *Lifetime Achievement Award For Contributions To The Field Of Youth Gambling* (2006). He has published over 185 refereed research papers in journals, a number of books, over 35 book chapters and has over 550 other publications to his name. He has served as a member on a number of national/international committees (e.g. *European Association for the Study of Gambling*, *Society for the Study of Gambling*, *Gamblers Anonymous General Services Board*, *National Council on Gambling* etc.) and was former National Chair of *Gamcare* (1997-2003). He also does some freelance journalism with over 120 articles published in *The Guardian*, *Independent*, *The Sun*, *Sunday Post*, *Daily Mirror*, as well as *Arcade* and *Inside Edge*.