IMPACT OF GAMBLING TECHNOLOGIES IN A MULTI-MEDIA WORLD

BY MARK GRIFFITHS

In many countries there appears to be a slow shift from gambling being taken out of gambling environments and into the home and the workplace. Historically, what we have witnessed is a shift from destination resorts (such as Las Vegas and Atlantic City) to individual gaming establishments in most major cities (e.g., betting shops, casinos, amusement arcades, bingo halls). More recently there has been a large increase in single site gambling opportunities (e.g., slot machines in non-gaming venues, lottery tickets sold in mainstream retail outlets), to gambling from home or work (e.g., Internet gambling, i-TV gambling).

Technological innovation has always played a role in the development of gambling behaviour, primarily through providing new market opportunities (Griffiths, 1999). The introduction of the Internet and other remote gambling developments (such as mobile phone gambling, interactive television [i-TV] gambling) is a potential issue for concern regarding problematic gambling behaviour. As technology develops there will be increased scope to manipulate the potentially addictive structural characteristics of gambling activities to increase the appeal and arousal of the games.

To date, knowledge and understanding of how remote media affects gambling behaviour is sparse. Globally speaking, proliferation of remote access is still an emerging trend and it will take some time before the effects on gambling behaviour surfaces. However, there is a strong foundation to speculate on the potential hazards of Internet gambling. For instance, Griffiths (2003) has identified the use of virtual cash, unlimited accessibility, and the solitary nature of gambling on the Internet as potential risk factors for problem gambling development.

The impact of gambling technology has been widespread and there are many observed trends around the world that appear to have resulted from technological innovation, e.g., gambling coming out of gambling environments, gambling becoming a more asocial activity, widespread deregulation, and increased opportunities to gamble (Griffiths, 2001). Furthermore, there are many other factors that form the backdrop to examining the increasing use of technology:

- Governments appear to be fixated on revenue raising
- Governments and the gaming industry appear to be using every marketing tool to increase revenue
- Global gambling has grown substantially in the last 10 years

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and is particularly noteworthy in the area of Internet gambling.

- There appears to be a global expansion strategy
- Technology is providing 'convenience' gambling
- Technology may be making gambling more socially acceptable to traditional low frequency gamblers (e.g., women, retired people, etc.).

In many countries there appears to be a slow shift from gambling being taken out of gambling environments and into the home and the workplace. Historically, what we have witnessed is a shift from destination resorts (such as Las Vegas and Atlantic City) to individual gaming establishments in most major cities (e.g., betting shops, casinos, amusement arcades, bingo halls). More recently there has been a large increase in single site gambling opportunities (e.g., slot machines in non-gaming venues, lottery tickets sold in mainstream retail outlets), to gambling from home or work (e.g., Internet gambling, i-TV gambling).

However, gambling can now be done in a wide variety of retail outlets. It is also clear that the "newer" forms of gambling like Internet gambling, mobile phone gambling, and i-TV gambling are activities that are done almost exclusively from non-gambling environments. One major worry about this is that in general, regulation of gambling all but disappears when it is done in non-gambling environments.

GAMBLING IN A MULTI-MEDIA WORLD

The rise and challenges of Internet gambling cannot be seen in isolation particularly as there is ever-increasing multi-media integration between the Internet, mobile phones, and interactive television (i-TV). It may be that people are more likely to spend money in particular media. For instance, 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. This may have implications for the types of gambling done in particular media.

Furthermore, i-TV may also help in one other important area – trust. People appear to trust their television even though it is accessing the Internet in the same way as a computer. However, as mentioned, 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). In addition, some i-TV services can be linked to actual television programmes (such as betting on horse races). Browsing and buying by i-TV are still in its infancy but look set to expand significantly in the future. The emerging youth market is also a consideration. There is a whole Internet generation coming through who may be the most positive about purchasing online services. They may be happier to enter credit card details online and/or meet others online. This has the potential to lead to some big changes as the profiles of these people will be radically different from previous punters.

MOBILE PHONE GAMBLING

The mobile phone industry has grown rapidly over the last few years. Research by Mintel (2005a) highlights that mobile phone revenues from mobile gambling and gaming is

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increasingly rapidly. In 2004, mobile gaming revenue reached $200 million. According to the Mintel report, by 2009, mobile gambling is set to generate $3 billion in the US alone. Despite the huge figure, mobile gambling is only likely to account for around 1.5% of mobile industry revenues. It will also be a small part of the overall market as Mintel predict that the US casino gambling market will generate revenues of almost $71 billion by 2009 (compared to the $48.3 billion generated in 2004).

In the UK, mobile phone gambling has also increased dramatically. Mintel (2005b) reported that the number of betting pages downloaded by the end of 2005 was expected to approach three million, up 367% on 2004. Mobile phone users in the UK spent around £740m on phone downloads by the end of 2005. This is 18 times the £40m spent in 2002. Ring tones for phones account for approximately a third of all mobile downloads. Arcade-style games (26%), screensavers and wallpaper (13%), and music (8%) are all popular. However, the biggest growth area has been in gambling, which now accounts for 9% of all mobile phone downloads in the UK.

These predictions also seemed to be backed up by Juniper Research (2005) who predicted mobile gambling revenues will total about $19.3 billion worldwide by 2009, with lotteries accounting for about $7.9 billion, sports betting bringing in $6.9 billion, and casino-style gambling contributing $4.5 billion. Juniper predicts that lotteries will make most money for mobile gambling operators because governments are generally less censorious about lotteries than other forms of gambling. They are also easy to play and relatively low cost compared to other types of gambling.

This means that mobile lotteries are likely to become established fairly quickly in a greater number of markets. Given the ubiquity of lotteries worldwide, it only requires a very small percentage of players to buy their tickets via their mobile phone for the resulting global dollar revenues to run into billions. Juniper also claims that the growth in the UK National Lottery is almost wholly attributable to mobile betting. Juniper also predicts that by 2009, mobile gambling revenues will be concentrated in Europe (37%) and the Asia-Pacific region (39%.). They predict that North America will produce only 15% of global revenues because of government and societal opposition to wireless gambling.

It is clear that mobile phone gambling 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. Mobile gambling is available on most of the mobile phones that are powered by Windows Mobile, Symbian OS, RIM including Java and browser based phones. There are now Internet sites that allow mobile phones to download casino-style games to the

gambler's phone, allowing real money betting from anywhere they can get a phone signal.

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 casino games. 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. The research by both Mintel and Juniper raises the possibility that almost unlimited access to mobile phone gambling will lead to more problem gambling.

Like Internet gambling, mobile phone gambling has completely changed the way people think about betting. Mobile phones provide the convenience of making bets or gambling from wherever the person is. On paper, this all sounds relatively simple and is set to get even easier. Many gaming industry observers are claiming that in the not too distant future that people will not go to sporting events like horse races or the football anymore. They will simply watch the sport on television, and to place bets via their mobile phones.

INTERACTIVE TELEVISION GAMBLING
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 believe i-TV will bring financial rewards for the television industry (Wise & Hall, 2005). 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 or gaming. A report by *KPMG* and *Screen Digest* estimated that by 2007 i-TV will generate approximately one half of the $5 billion in online revenues (Indiantelevision.com, 2004).

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 gaming (including gambling). 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, 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*, playing along with television game shows like *Who Wants To Be A Millionaire?,* and wagering on sports events such as horse racing and football. But will gaming be among i-TV's most profitable applications? Consumer surveys

suggest a moderate interest in gaming but when offered uptake is usually good. A good example of this is the National Lottery where there was little public appetite for one before its introduction in 1994, but has proved very popular since. Gambling via television clearly has great potential but may be limited in many markets (such as the US) because of regulatory issues.

There appears to be an increasing wave of interactive television applications aimed at viewers drawn to the allure of video games and online 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. Furthermore, they are specifically targeting younger audiences. A 2005 study by *Nielsen/Activision* reported that 18- to 34-year-old males (a prime demographic for advertisers of many products) now play video games rather than watch television (Inside Video Games, 2005). As a consequence, media service providers have had to reinvent and reinvigorate the television viewing experience. One of the most potentially lucrative vehicles for this has therefore been interactive television games.

Media service providers in the US have been piloting interactive programming like *NASCAR in Car*, which allows viewers to watch races from inside one of seven cars participating in a stock-car race and seeing what the drivers are seeing. Using a television remote control, viewers can switch cars. Viewer loyalty scores highly with advertisers, which contribute the bulk of sales. Media service providers also take its share of the text-messaging revenues when answering the multiple-choice questions on screen.

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 "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).

Lots of companies have done well financially in Europe and Asia where more than 30% 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. Exactly how successful interactive television gaming will become cannot be answered at present and there are clearly some markets such as the US that are impeded

because of legislative and regulatory issues. And as with mobile phone gambling, there are potential issues of concern surrounding social impact that need monitoring.

As Parke and Griffiths (2004) point out, the most effective way to control the effects of the idiosyncratic features of remote gambling on development of problematic gambling behaviour is to provide individuals with a scrutinised, regulated remote gambling industry. All over the world, the recognition of the inability to prohibit remote gambling successfully, has lead various jurisdictions to turn attention to developing harm minimisation regulations. This appears to be the most pragmatic approach.

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