Back in 1998, I gave a paper at the annual GamCare Conference where I speculated what the major world gambling trends would be over the next decade. This section briefly overviews these global trends. I noted these trends included (i) gambling coming out of gambling environments, (ii) the increased use of technology in gambling activities, (iii) gambling becoming a more asocial activity and (iv) widespread deregulation and increased opportunities to gamble.

Gambling coming out of gambling environments: The UK National Lottery was introduced in November 1994. One of the hidden impacts since the introduction of the UK National Lottery was that this was a widespread act of gambling that had been taken out of the gambling environment on a national scale. Pre-National Lottery, legal gambling mainly took place in betting shops, casinos,
amusement arcades and bingo halls. Admittedly, there were exceptions including the football pools and fruit machines on single site premises. However, gambling can now be done in a wide variety of retail outlets. It is also clear that the newer forms of gambling (such as Internet gambling) are activities that are done almost exclusively from non-gambling environments - usually the home or the workplace.

The increased use of technology in gambling activities: Technology has always played a role in the development of gambling practices. I have argued that gaming is driven by technological advance and these new technologies may provide many people with their first exposure to the world of gambling. Furthermore, some people they may be more enticing than previous non-technological incarnations. Technology is continuing to provide new market opportunities not only in the shape of Internet gambling but also in the shape of more technologically advanced slot machines and video lottery terminals, interactive television gambling, and mobile phone gambling. In addition, other established gambling forms are becoming more technologically driven (e.g. bingo, keno).

Gambling becoming a more asocial activity: I have argued that one of the consequences of increased use of technology has been to reduce the fundamentally social nature of gambling to an activity that is essentially asocial (e.g. slot machine gambling, video poker, etc.). My research has shown that there are many different types of player based on their primary motivation for playing (e.g. to escape, to beat the machine, for social rewards, for excitement etc.). Those who experience problems are more likely to be those playing on their own (e.g. those playing to escape). A study by the UK Home Office also made the point that those people who played in groups often exerted social influence problem gamblers in an effort to reduce the problems faced. Retrospectively, most problem gamblers report that at the height of their problem gambling, it is a solitary activity. Gambling in a social setting could potentially provide some kind of “safety net” for over-spenders, i.e., a form of gambling that is not associated with social and occupational commitments. In my early writings on Internet gambling, my colleagues and I argued that there were a number of other more important factors that make online activities like Internet gambling potentially attractive, seductive and/or addictive. Such factors include anonymity, convenience, escape, dissociation / immersion, accessibility, event frequency, interactivity, disinhibition, simulation, and asociality. Outlined below are some of the main variables that I believed accounted for acquisition and maintenance of social behaviours.

Widespread deregulation and increased opportunities to gamble: Gambling deregulation is now firmly entrenched within Government policy not only in the UK but worldwide. The present situation of stimulating gambling in the UK appears to mirror the previous initiatives of other socially conditioned but potentially addictive behaviours like drinking (alcohol) and smoking (nicotine). As gambling laws become more relaxed and gambling becomes another product that can be more readily advertised (i.e. “stimulated”) it will lead to a natural increase in uptake of those services. This in itself will lead to more people who experience gambling problems (although this may not be directly proportional) because of the proliferation of gaming establishments and relaxation of legislation. What has been clearly demonstrated from research evidence in other countries is that where accessibility of gambling is increased there is an increase not only in the number of regular gamblers but also an increase in the number of problem gamblers.

In summary, all of the global trends that I first outlined in 1998 have continued worldwide. If anything, the gaming industry is becoming “technologised” in a way that goes way beyond what I first predicted. This has led to an increase in gambling coming out of gambling environments, increased asociality in gambling, and increased access and opportunity to gamble.

SPECULATIONS ABOUT INTERNET GAMBLING

In my early writings on Internet gambling, my colleagues and I predicted Internet gambling would take off for several reasons. At a very basic level, we argued that gambling in these situations was easy to access as it comes into the home via computer and/or television. I also made the point that Internet gambling had the potential to offer visually exciting effects similar to a variety of electronic machines. Furthermore, virtual environments have the potential to provide short-term comfort, excitement and/or distraction for its users. However, I also argued that there were a number of other more important factors that make online activities like Internet gambling potentially attractive, seductive and/or addictive. Such factors include anonymity, convenience, escape, dissociation / immersion, accessibility, event frequency, interactivity, disinhibition, simulation, and asociality. Outlined below are some of the main variables that I believed accounted for acquisition and maintenance of some online behaviours.

Accessibility - Access to the Internet is now commonplace and widespread, and can be done easily from the home and/or the workplace. Given that prevalence of behaviours is strongly correlated with increased access to the activity, it is not surprising that the development of regular online use is increasing across the population. Increased accessibility may also lead to increased problems. Fundamentally, increased accessibility of gambling activities enables the individual to rationalise involvement in the ‘risk-behaviour’, by removing previously restrictive barriers such as time constraints emanating from occupational and social commitments. With reductions in time required to select, place wagers and collect winnings, gambling as a habitual activity appears more viable, as social and occupational commitments are not necessarily compromised.

Affordability - Given the wide accessibility of the Internet, it is now becoming cheaper and cheaper to use the online services on offer. Although very excessive use will still lead to large monthly bills for those who pay by the minute, for most people the cost compared to either a telephone call and/or postage will be cheap to moderate. Furthermore, as access to the Internet increasingly becomes an integral part of our occupational, educational and social lives, free access to Internet outside the home is becoming more and more prevalent (e.g. workplace, higher education institutions and public libraries), and therefore, to an extent, removing affordability as a primary barrier to engaging in online gambling.

The overall cost of gambling has been reduced
significantly through technological developments, again, effectively rendering affordability less of a restrictive force when it comes to rationalising involvement in the behaviour. For example, the saturation of online gambling industry has lead to increased competition, and the consumer is benefiting from the ensuing promotional offers and discounts available on gambling outlay. Regarding interactive wagering, the emergence of peer-to-peer gambling through the introduction of betting exchanges has provided the customer with commission free sporting gambling odds, which in effect means the customer needs to risk less money to obtain potential revenue. Finally, ancillary costs of face-to-face gambling, such as parking, tipping and purchasing refreshments, is removed when gambling within the home and therefore the overall cost of gambling is reduced making it more affordable.

Anonymity - The anonymity of the Internet allows users to privately engage in gambling without the fear of stigma. This anonymity may also provide the user with a greater sense of perceived control over the content, tone, and nature of the online experience. Anonymity may also increase feelings of comfort since there is a decreased ability to look for, and thus detect, signs of insincerity, disapproval, or judgment in facial expression, as would be typical in face-to-face interactions. For activities such as gambling, this may be a positive benefit particularly when losing as no-one will actually see the face of the loser. Anonymity, like increased accessibility, may reduce social barriers to engaging in gambling, particular skill-based gambling activities such as poker that are relatively complex and often possess tacit social etiquette. The potential discomfort of committing a structural or social faux-pas in the gambling environment because of inexperience is minimised because the individual’s identity remains concealed.

Convenience - Interactive online applications such as e-mail, chat rooms, newsgroups, or role-playing games provide convenient mediums to engage in online behaviours. Online behaviours will usually occur in the familiar and comfortable environment of home or workplace thus reducing the feeling of risk and allowing even more adventurous behaviours that may or may not be potentially addictive. For the gambler, not having to move from their home or their workplace may be of great positive benefit.

Escape - For some, the primary reinforcement to engage in Internet gambling will be the gratification they experience online. However, the experience of Internet gambling itself, may be reinforced through a subjectively and/or objectively experienced “high.” The pursuit of mood-modifying experiences is characteristic of addictions. The mood-modifying experience has the potential to provide an emotional or mental escape and further serves to reinforce the behaviour. Excessive involvement in this escapist activity may lead to addiction. A recent study identified that gambling to escape was the primary motivator for problem gamblers’ continued excessive gambling. Online behaviour can provide a potent escape from the stresses and strains of real life.

Immersion/Dissociation - The medium of the Internet can provide feelings of dissociation and immersion and may
facilitate feelings of escape (see above). Dissociation and immersion can involve lots of different types of feelings. This can include losing track of time, feeling like you’re someone else, blacking out, not recalling how you got somewhere or what you did, and being in a trance like state. In extreme forms it may include multi-personality disorders. All of these feelings when gambling on the Internet may lead to longer play either because “time flies when you are having fun” or because the psychological feelings of being in an immersive or dissociative state are reinforcing.

**Disinhibition** - This is clearly one of the Internet’s key appeals as there is little doubt that the Internet makes people less inhibited. Online users appear to open up more quickly online and reveal themselves emotionally much faster than in the offline world. For the gambler, being in a disinhibited state may lead to more money being gambled, particularly if they are motivated to maintain their initial persona (e.g., as a skilful online poker player).

**Event frequency** - The event frequency of any gambling activity (i.e. the number of opportunities to gamble in a given time period) is a structural characteristic designed and implemented by the gaming operator. The length of time between each gambling event may indeed be critical as to whether some people might develop problems with a particular type of gambling. Obviously gambling activities that offer outcomes every few seconds or minutes (e.g., slot machines) will probably cause greater problems than activities with outcomes less often (e.g., weekly lotteries). Rapid event frequency also means that the loss period is brief with little time given over to financial considerations and, more importantly, winnings can be re-gambled almost immediately. Furthermore, the event frequency can be very rapid, particularly if the gambler is subscribed or visits several sites.

**Interactivity** - The interactivity component of the Internet may also be psychologically rewarding and different from other more passive forms of entertainment (e.g., television). It has been shown the increased personal involvement on a gambling activity can increase the illusion of control that in turn may facilitate increased gambling. The interactive nature of the Internet may therefore provide a convenient way of increasing such personal involvement.

**Simulation** - Simulations provide an ideal way in which to learn about something and which tends not to have any of the possible negative consequences. However, Internet gambling simulations may have unthought of effects. Many online gambling sites have a practice mode format, where a potential customer can place a pretend bet in order to see and practice the procedure of gambling on that site. Although this activity can not be regarded as actual gambling as there is no ‘real’ money involved, it can be accessed by minors and possibly attract an underage player into gambling. Also, gambling in practice modes available within the gambling website, may build self-efficacy and potentially increase perceptions of control in determining gambling outcomes motivating participation in their ‘real cash’ counterparts within the site.

**Asociability** - As mentioned above, one of the major influences of technology appears to be the shift from social to asocial forms of gambling. From this it could be speculated that as gambling becomes more technological, gambling problems will increase due to its asocial nature. However, it could also be argued that for some people, the Internet (including online gambling) provides a social outlet that they would not otherwise have. This is particularly true for women who may feel uncomfortable going out on their own, unemployed people, and retired people. Furthermore, because of the apparent vacuous social component within remote gambling, work carried out by our research unit has emphasised that alternative methods of peer interaction are available within interactive gambling activities that retain the socially reinforcing aspects of the behaviour. Individuals can communicate via computer-mediated communication (CMC) within the game itself and even post-gambling through involvement in online gambling web-communities. An increasing trend is for online gambling websites to provide a customer forum to facilitate peer interaction and therefore increase the social element of the game. Some firms even have introduced an Internet radio facility that entertains their customers as they gamble, while simultaneously drawing attention to significant winners within the site. Effectively, the structural design of remote gambling removes the social safety net that is integral to maintaining responsible gambling practice without reducing the socially rewarding aspects inherent in traditional gambling environments.

**Specific facilitating factors:** Finally in this section it is worth noting that there are many other specific developments that look likely to facilitate uptake of remote
gambling services including (i) sophisticated gaming software, (ii) integrated e-cash systems (including multi-currency), (iii) multi-lingual sites, (iv) increased realism (e.g., "real" gambling via webcams, player and dealer avatars), (v) live remote wagering (for both gambling alone and gambling with others), (vi) improving customer care systems, and (vii) inter-gambler competition. All of these specific and generic factors appear to be important in the attraction of Internet gambling and current research appears to be supporting many of these previously speculated factors as being important to gamblers.

**SPECULATIONS ABOUT CHANGING NATURE OF FAMILY ENTERTAINMENT**

Back in 2000 I made some speculations about the increase in and development of home entertainment systems and how they would change the pattern of families' leisure activities. I claimed the increase in and development of home entertainment systems would change the pattern of many families' leisure activities. I said that the need to seek entertainment outside the home would be greatly reduced as digital television and home cinema systems offer a multitude of interactive entertainment services and information. I claimed many families would adopt a leisure pattern known as "cocooning" where the family or individual concentrates their leisure time around in-house entertainment systems. Rather than going out, the entertainment comes to them direct via digital television and Internet services. Part of this entertainment for many families could be Internet gambling. So what evidence is there that this is happening?

To date there has been very little research on Internet gambling in young people. Only one UK study carried out by MORI and my own International Gaming Research Unit has examined this issue and this only related to use of National Lottery products online. In order to ascertain their experience of gambling on the Internet, young people (over 8000 12-15 year olds) were asked ‘Have you ever played any National Lottery game on the Internet?’ Eight percent of young people aged 12 to 15 years said they had played a National Lottery game on the Internet. Boys were more likely than girls to say they had played National Lottery games on the Internet (10% and 6%, respectively). Not surprisingly, young people classified as ‘problem gamblers’ were more likely than ‘social gamblers’ to have played a National Lottery game on the Internet (37% compared with 9%).

When asked which of a series of statements best describes how they played National Lottery games on the Internet, nearly three in ten of these young people reported playing free games (29%), one in six reported that the system let them register (18%), slightly fewer played along with their parents (16%), and one in ten used their parent’s online National Lottery account either with their permission (10%), while (7%) played without their parents’ permission. However, it should be noted that a third of online players said they ‘couldn’t remember’ (35%).

As noted above, problem gamblers are more likely than social gamblers to have played games online in the past week. This is an interesting finding. Problem gamblers may be more susceptible and/or vulnerable to gambling online and the fact that it provides convenience gambling is a cause for concern in this particular subgroup of gamblers. This is also an issue for adult problem gamblers, although their adolescence makes this group even more vulnerable. These
more “hidden” methods of gambling may be more attractive to problem gamblers, particularly if gambling is an activity they prefer to do socially rather than with friends. In addition, once an adolescent has managed to get through age verification systems and register, they can gamble again repeatedly; this differs from offline facilities, where adolescents will have to deceive the ‘gatekeepers’ on each separate visit. In the present survey, 17% of those who had played the lottery on the Internet had accessed their parents’ accounts (either with or without their permission). My claim that some adolescents will gamble along with their parents on the Internet has some empirical backing although it seems to be occurring as a minority activity among adolescents.

I should perhaps say that I have also made speculations about technological addictions and the psychosocial impacts of Internet gambling. However, I discussed these issues at length in a previous issue of Casino and Gaming International and will not repeat them here. In summary, most of the speculations that I have made over the last 10 years in relation to issues such as impact on vulnerable groups, unscrupulous operators, behavioural tracking, etc., are still high on the social responsibility agenda. If anything, these issues have increased in importance over the last few years.

**AREA OF GROWING INTEREST IN INTERNET GAMBLING**

In addition to the many speculations that I have made over the last decade in relation to Internet gambling, there are many things that I have not predicted would be areas of growing interest. These include (i) the rise of online poker and betting exchanges, (ii) gender swapping online and the rise of female Internet gambling, (iii) Internet gambling in a multi-media world, and (iv) technological help for problem gamblers. One of these areas (Internet gambling in a multi-media world) was discussed at length in a previous article in Casino and Gaming International and will not be discussed here. I will briefly examine the three remaining areas.

**Online poker and betting exchanges:** Two of the fastest growing forms of online gambling are in the areas of online poker and online betting exchanges. I have speculated there are three main reasons for the growth in these two particular sectors. Firstly, they provide excellent financial value for the gambler. There is no casino house edge or bookmakers’ mark-up on odds. Secondly, gamblers have the potential to win because there is an element of skill in making their bets. Thirdly, gamblers are able to compete directly with and against other gamblers instead of gambling on a pre-programmed slot machine or making a bet on a roulette wheel with fixed odds. However, one of the potential downsides to increased competition is recent research highlighting that problem gamblers are significantly more likely to be competitive when compared to non-problem gamblers. Our research unit has also speculated other factors that have aided the popularity of online poker. These include (i) social acceptability of this type of gambling, (ii) promotion through televised tournaments often with celebrity players, (iii) 24/7 availability, (iv) the relative inexpensiveness of playing, and (v) the belief that this is predominantly a game of skill that can be mastered.

**Gender swapping and the rise in female Internet gambling:** A recent study by our research unit reported the phenomenon of gender swapping in 422 online poker players (sixty of which were female players). More female players (20%) in our study reported swapping gender when playing compared to males (12%). Typical reasons that female participants gave as to why they did this were that they believed other males would not take them so seriously if they knew they were playing against a woman. It also gave them a greater sense of security as a lone woman in a predominantly male arena. Males and females clearly had different motivations for gender swapping. For males it was a tactical move to give them a strategic advantage. For females it was more about acceptance or privacy in what they perceived to be a male dominated environment. Similar findings have been reported in relation to online computer game playing. In more general terms, the apparent rise in female Internet gambling is most likely because the Internet is a gender-neutral environment. The Internet is seen as less alienating and stigmatising medium when compared to male-dominated environments such as casinos and betting shops.

**Technological help for problem gamblers:** Much of this article has discussed the potential downside of technological innovation. However, one area that was not predicted a decade ago is the use of technology in the prevention, intervention, and treatment of problem gambling. For instance, technology is now being used for health promotion using the Web, video games, and/or CD-ROMs. Internet gambling sites are beginning to feature links to relevant gambling awareness sites. For those sites that analyze their online behavioural tracking data, it may be the case that such data could be used to identify problem gamblers and help them rather than exploit them. Finally, help in the form of online therapy (such as online counseling) may be an option for some problem gamblers. For instance, a recent evaluation of GamAid (an online advice service) showed that clients were very positive about the service and that Internet gamblers were more likely to access the service than non-Internet gamblers.

**CONCLUSION**

Many (if not most) of the speculations and predictions that I have made over the last decade appear to have proved broadly correct. The omissions or non-predictions appear to be more to do with developments in a fast-changing media that few would have been able to predict. I would argue that academics (and other interested parties) should continue to speculate in the absence of empirical data as it may have implications for policy, research, intervention and treatment.

As can be seen from this short article, many of the things I have speculated about have grown in importance over the last decade, and that examining potential impacts in this area has helped interested stakeholders in planning for the future.

**REFERENCES**


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Dr. Mark Griffiths is Professor of Gambling Studies at the Nottingham Trent University. He is internationally known for his work into gambling and gaming and was the first recipient of the John Rosecrance Research Prize for Outstanding scholarly contributions to the field of gambling research in 1994, winner of the 1998 CELEJ Prize for best paper on gambling and the 2003 winner of the International Excellence Award for outstanding contributions to the prevention of problem gambling and the practice of responsible gambling. He has published over 150 refereed research papers, two books, numerous book chapters and over 350 other articles. In 2004 he was awarded the Joseph Lister Award for Social Sciences by the British Association for the Advancement of Science for being one of the UK’s outstanding scientific communicators.