

Technical Tools to identify a problem gambler

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This paper was produced in 2005 as part of the preliminary research of the Gaming Regulators European Forum (GREF) Working Group on Technical Issues. It should be read in a historical sense, not least because the intervening years have seen significant changes in technology and application. The paper has not been updated to reflect these changes. The question of how problem gambling can or should be addressed via technology, however remains pertinent, as do the dilemmas surrounding responsibility, scale and proportionality.

The paper has been discussed and accepted in the 4th meeting of the GREF Working Group on Technical Issues on 23 January 2006 in London, Great Britain, and has been endorsed at the annual meeting of GREF on 12 June 2009 in Tallinn, Estonia.

Methodology

This paper is the result of a limited study of published literature and other sources. Not being a technical expert, the author offers examination of what technical solutions can offer in the development of policy, rather than the technical specifics themselves. The paper deliberately places its main emphasis upon information and developments from outside Europe. This is because there is no empirical evidence arising from Jersey to contribute at this time and also because other GREF members should be better able to present relevant data from their own jurisdictions. From that perspective, colleagues are urged to supply additional information relating to individual experience from within their home jurisdictions.

This is especially because while a great deal of research has taken place examining the application of technology to limiting potential harm, there is still a marked lack of published research examining how technology can specifically identify problem gambling.

Introduction

The task of considering technical tools for identifying problem gamblers is made difficult by the lack of consensus world-wide as to what a problem gambler is and what sort of behaviour they generally display. A clinical approach is offered by the Diagnostic and Statistical Manual of Mental Disorders (DSM), published by the American Psychiatric Association. The DSM provides the following 10 characteristics, of which five or more must be present for a diagnosis of 'pathological gambling' to be made:

- Is preoccupied with gambling.
- Needs to gamble with increasing amounts of money to achieve the desired excitement.
- Has repeated unsuccessful efforts to control, cut down or stop gambling.
- Is restless or irritable when attempting to cut down or stop gambling.
- Gambles as a way of escaping problems or relieving a dysphoric mood.

¹ Although written under the auspices of GREF, nothing in this paper shall be construed as being indicative of Government policy in Jersey and any opinions herein are those of the author and not the Economic Development Department or the States of Jersey.

- After losing money gambling, returns another day to "get even."
- Lies to family members, therapist or others to conceal the extent of gambling.
- Has committed illegal acts such as forgery or theft to finance gambling.
- Has jeopardized or lost a significant relationship or job because of gambling.
- Relies on others to provide money to relieve desperate financial situations caused by gambling.

One can also use a 5+ score on the South Oaks Gambling Screen (SOGS). Other interpretations developed from a clinical base are also used. A 'problem gambler', however, does not necessarily have to have the low level of impulse control necessary to be diagnosed as having a clinical illness. The NASPL² defines problem gambling as that which '*causes difficulty for the individual but does not meet the standards for pathological gambling. Sometimes referred to as "at-risk, "in-transition" or "potential pathological" gambling, though it is not known at what rate problem gamblers become pathological gamblers*'.

The amount of money won or lost does not determine when gambling becomes a problem. Gambling becomes a problem when it causes a negative impact on any area of the individual's life. Warning signs of this may follow the GA '20 Questions' approach, a condensed form of which include³:

- Losing time from work or school due to gambling
- Repeated failed attempts to stop or control the gambling
- Lying about the amount of time and money spent on gambling
- Gambling to escape from life's problems
- Gambling for increasing amounts of time or with increasing amounts of money
- Gambling more money in an attempt to win back losses (chasing)
- Neglecting the care of one's self or family due to gambling
- Relying on loans or "bailouts" from family or friends to meet financial obligations
- Feelings of helplessness and depression or thoughts of suicide.

None of these features, however, are easily recognisable and often take a significant amount of time, sometimes many years, before they start to become noticeable – either to the individual themselves, or to friends and family around them. For the regulator and the gambling industry, therefore, the task of identifying problem gamblers has always been particularly difficult.

Traditional Methods

The tried and tested methods of dealing with problem gambling have generally taken two main forms. The first has been to get problem gamblers to identify themselves. This is notoriously difficult when a person is in denial, but is generally marked by self-exclusion programmes and, in some jurisdictions, through the use of third party exclusion. Counselling and advice can also be given to patrons if they request it within gaming venues and through the assistance of specialist agencies, self-help groups and so on. The process focuses upon the individual and may allow the person (after treatment/assistance) to gain sufficient control that they are able to engage in limited gambling later on, or may lead to the person accepting that they have a compulsive disorder that necessitates that they never gamble again.

² www.naspl.org/problem.html (The North American Association of State and Provincial Lotteries)

³ <http://www.nevadacouncil.org/aboutPG/faq.html>

The other method is more general and is based on an acknowledgment that society has a duty of care. This is usually seen as the responsibility of government that exercises this duty through the use of legally enforceable Regulations to mitigate potential harm to all. Historically Regulations have tried to ensure that gambling is fair and free from crime. Greater emphasis over the past 30 years has been on the potential for addiction and to legislate to prevent practices that might lead to problem gambling.

Following from these approaches, it seems reasonable to assume that technical tools to identify a problem gambler should be both individual in application and behaviour specific in their design. As gambling addiction is a problem of the individual and is based upon a vast array of interconnected personal experiences, circumstances and stimuli, there is no set level of play (or loss) at which gambling becomes an accepted 'problem'. There are, however, types of gambling behaviour, such as loss chasing, erratic betting, playing for extended periods and so on, that when displayed over an extended period of time may be indicative of problem gambling.

It is the very individuality of problem gamblers that makes their identification so difficult. Although there has been huge technological advancement in the gaming industry over the past 30 years, the only way that technology can identify a problem gambler and be 100% confident is when that person is already recognised as having a problem. Notwithstanding the development of other systems of behaviour recognition (and more of these in a moment), it is immensely difficult for a computer programme to state with certainty where the boundary exists where a recreational gambler turns into a problem gambler or, when a certain style of game play indicates that a person is a problem gambler.

The question might still also be asked however, why at the end of 2005, with all the advances in technology worldwide, are technological tools to identify problem gamblers not more widely available? As far back as 1999, the Australian Productivity Commission published a report⁴ indicating possible technological impacts that might benefit problem gamblers. These included:

Attitudes of problem gamblers to the effectiveness of harm minimisation measures (abridged)				
	Would not work	Would work a bit	Would work well	Total
	%	%	%	%
Information about the odds of winning in any particular gamble should be clearly displayed (e.g. on a poker machine)	20.3	36.5	43.1	100
Technology should be developed allowing gamblers to self-exclude from gambling, if they wish to	14.3	35.2	50.2	100
Automatic teller machines should not be located right next to where people gamble	7.9	17.6	74.5	100
Technologies should be developed allowing gamblers to set limits on their gambling, if they wish to	17.2	27.7	54.7	100
Technologies should be developed allowing gamblers to track their gambling spending over time	20.5	43.8	35.6	100
Poker machines should only be able to take coins and not notes	19.7	34.2	46.1	100
Poker machines should have enforced breaks in play so players can think about whether they want to continue gambling	23.3	37.0	39.6	100

⁴ **Australian Government**, Productivity Commission. (1999) Inquiry Report on Australia's Gambling industries, Volumes 1-3. Table 16.8 (p16.69)

Poker machines should remind the gambler how long they have been playing, and ask them if they want to continue	19.9	40.3	39.8	100
The number of lines and credits playable on poker machines should be reduced	22.2	32.2	45.6	100
Poker machines should not have linked jackpots	35.3	30.9	33.8	100

While certain of these areas have been addressed, they are mostly centred upon a passive response. By this, I mean the onus largely remains on the individual gambler to control their play, rather than on the provider to identify that a problem potentially exists and seek to address it. There are several reasons why this should be so. The first will inevitably be the large costs involved. Costs are not just limited to research, development and field testing. They also need to be factored into the value of older equipment that might need to be converted and (in the case of land-based environments) the 'write-off' costs of equipment that cannot be updated. Costs are also increased because of the lack of a dominant trusted system.

That having been said, and as will be demonstrated later in this paper, technological solutions to identify problem and potential problem gamblers do appear to exist. While cost could be a factor, other issues might also play a part in the industry's reticence to move forward. In an ever more litigious world, any company would think twice about offering a product designed to identify problem gambling because of the risk involved if the technology failed. The liability issues involved remain to be resolved.

Identifying the gambler at work

Using technological tools to identify unwanted actions (at least in the virtual arena) is already very common. Most companies have some form of internet monitoring solution that may, amongst other things, identify problem gamblers to their employer. The technology involved in this process is now quite standard and involves the use of Firewalls, Virtual Private Networks (VPNs), Proxy Servers, Cache servers and monitoring software⁵.

A firewall is simply a program or hardware device that filters information coming through an Internet connection. Firewalls are usually located at the gateway to the Internet and they manage traffic at a single point. A VPN is a private network that uses a public network (usually the Internet) to connect remote sites or users together. VPNs take two forms: voice-carrying and data-carrying. Instead of using a dedicated, real-world connection, a VPN uses "virtual" connections routed through the Internet from a private network to a remote site or employee. When a request to establish a session comes in from a dial-up client, the request is proxied to the identification server. This then checks: (a) Your identity (authentication); (b) What you are allowed to do (authorization); and, (c) What you actually do (accounting). This last function is one of the means to monitor Internet usage.

Proxy servers make requests to the Internet on behalf of internal clients. They typically provide basic caching and other services. These servers sit inside a firewall, and balance the functions of providing intranet users with easy access to the Internet, while simultaneously seeking to keep a network secure. Proxy servers can log all actions they take so that intranet administrators can check internet usage. The content is also filtered in the caches as well. Cache servers are used to temporarily store Web pages a typical user is likely to want. The content is filtered in the caches.

⁵ Information taken from http://www.firstmonday.org/issues/issue8_4/fox/#f2

Monitoring software is based on filtering technology that requires all requests for Web pages to pass through an Internet control point such as a firewall, proxy server or a caching device. The software is integrated with these control points and checks each request to immediately determine whether it should be allowed or denied. All responses are logged for reporting purposes. The software filters Internet content by working in conjunction with a master database adapted for a company's individual purposes. The network administrator can then choose to block, permit, limit by time-based quota or postpone access to individual categories by user, group, workstation or network.

Although serious problem gamblers may be identified in this fashion, it is unlikely that they will be prevented from gambling further in their own time and also unlikely that having been identified, they will (by their employer at least) be offered the counselling and support necessary to treat their particular circumstances. For that reason it is necessarily more important, I believe, to consider how to identify a problem gambler when they are at leisure.

Although the principles are the same, it is useful to consider options to identify problem gamblers both in physical (real world) environments and also in virtual environments. Within either environment, gambling activities can be analysed passively or actively. By this I mean that technology can be implemented to analyse a gamblers level and types of play to indicate problem gambling (active), or technology can be utilised to assist a problem gambler who, by and large, has identified themselves (passive).

Virtual Environment – passive identification

Passive types of technology were amongst the first to be developed and centre upon gaining the gamblers own agreement to curb their levels of play. Typical amongst these types of strategies are self-exclusion policies, placing limits on play and opting out of advertising and loyalty schemes. Many on-line gaming sites now incorporate these types of features and jurisdictions licensing virtual gaming are increasingly including requirements for such features within their technical regulations.

Virtual Environment – active identification

As the issue of problem gambling has become better recognised and as technological developments have advanced, it has become possible for virtual operators to utilise the huge amount of data that they store about their customers to actively study their game play and, if set parameters are met, contact the client to discuss whether any issues exist⁶. This is not just limited to internet based delivery systems, but is also reputedly available via digital satellite and cable television programmes⁷ and potentially other platforms.

Physical Environment – passive identification

Identifying a problem gambler in the real world has always been extremely difficult and has centred upon the provision of literature on problem gambling within venues as well

⁶ In 2002 Playtech developed a compulsive gambling prevention tool, which helps to identify problem players in advance and ensure high standards of socially responsible gaming in all of its licensees' operations.

<http://www.playtech.com/current.playtech.com/history.php>

⁷ Kenilworth Systems Corporation announced in October 2003 that lottery players that subscribe to would be able to buy an 'admission ticket' for "Bet as you watch casino" television simulcast broadcasts of live in-progress casino table game action...By monitoring all wagering action, the system is able to identify compulsive gamblers and limit or shut down their obsessive gambling habits. The system operates via a microprocessor incorporated into the TV Set Top Box and thus does not (allegedly) contravene the US 1961 Wire Act because it does not make use of the internet. www.prnewswire.co.uk/cgi/news/release?id=110124

as the increasing use of helplines and other services advertised not only in hard copy, but also electronically within the opening screens on electronic gaming machines and other types of gaming equipment. Typically a venue has had to resort to training staff to recognise features of problem gambling and be able to advise patrons on the sorts of services available should they wish to seek help.

This is not to denigrate such an approach completely. Passive approaches (including the use of self-exclusion) can be a useful measure, but unless they allow for linked systems and information exchange on problem gambling, its usefulness will be mitigated by the ability of a player to swap over to playing a different system or at a different venue. For customers living close to borders, even nationally maintained databases may be overcome.

Physical Environment – active identification

The development of new technologies, however, has given real-world operators the ability to offer similar levels of protection to their virtual colleagues. Of particular importance over the past few years has been the increasing sophistication of biometric technology. If the objective is to identify and exclude problem gamblers from gaming enterprises, one strategy will be to use the biometric identity of those gamblers to control their access to gaming venues. Biometrics⁸ is a proven technology now being incorporated into EU passports that allows passive identification of physical attributes through infrared recognition of heat patterns emitted by facial blood vessels, iris recognition⁹ and facial recognition.

It is reasonable to suppose that if the industry can track players in order to reward them for frequent playing, then the same technology should be able to determine whether their levels and styles of play are indicative of problem gambling¹⁰. Notwithstanding the lack of a recognised definition of problem gambling, customer tracking technologies are able to analyse play over an unlimited period and are, therefore, best suited to indicate when player styles might indicate a problem.

A particularly good example of how real world gaming venues use technology to address and hopefully identify problem gambling is offered by Holland Casinos in the Netherlands¹¹. Holland Casinos issue 'visitor registration cards' which are computerised and linked to all venues in their estate. If clients play more than 20 times per month in a three month period, they are called in for an open interview on all the aspects of problem gambling. Floor managers and security risk-control officers conduct these interviews. At the interview the clients are questioned about things like affordability, number of dependants, other hobbies, etc. If a problem is identified, preventive and protective measures are then taken. The first step is a limited visit ban. The client may return to a venue a maximum of eight times in a given month for a duration of six months to one year. Or instead of the limited visit ban, the client may opt for an entry ban (self-exclusion) of six months, one year, or indefinite. If the client wants to be re-

⁸ Use of this technology would be a logical extension of the existing casino technology infrastructure - gaming machines and player tracking systems are already on high-capacity networks, more than 160 casino surveillance systems (in the USA) currently use biometric identification and central databases of excluded players already exist. Blake Cumbers, vice president of development for Boyd Gaming Corporation http://www.americangaming.org/rgq/rgq_detail.cfv?id=269

⁹ The technology already exists that could make it impossible for unwanted gamblers to enter a casino, even heavily disguised. With Iris Recognition Technology, if the camera can see the eyes, it will identify unwanted customers...Some casinos have been using this technology for years, but only to prevent professional card counters, cheaters and people that the casino considers undesirable from entering. Clearly, there is no reason why the casinos cannot keep people out if they choose to. Sol Boxenbaum & Brenda Thomas. Responsible Gambling: Whose Responsibility Is It? A Critique <http://www.vivaconsulting.com/advocacy/halifax.html>

¹⁰ Casino Fortune, an online gaming company, has developed a system to identify compulsive gamblers: "This system...will now enable us to analyze our players' database for suspected cases of compulsive gambling," says Peron Mahabir, Sunny Casinos Director. <http://www.gamblingtimes.com/press/compulsive.html>

¹¹ Boxenbaum & Tomas. Op Cit.

admitted after the ban period expires, he or she must attend an interview before being re-admitted. At the same time, the client is advised to continue the limited visit program. The same rules will apply for Internet gambling.

In 2000 a study¹² was performed into the effectiveness of the policy for the prevention of compulsive gambling of Holland Casino. One of the most important tools to determine whether a gambler should be approached on his behavior showed to be a sudden increase of the number of visits. Furthermore it showed that a relatively large percentage of problem gamblers start experiencing problems with gambling even at low visiting frequencies, even with an average of less than 8 visits a month. An indicator, integrated in the computer system causing a message to be shown when the visiting frequency (suddenly) increases, was advised. This implies that a monitoring system on a personal basis on the number of visits and the development thereof, could be a useful technical tool to determine problem gamblers. The study showed that the policy of Holland Casino is successful, but also that its success depends on the access to alternative ways of gambling for the gamblers being banned from the establishments of Holland Casino. It is therefore obvious that for the enhancement of the effectiveness of any prevention policy, it should be applied by all the operators the field.

While the Dutch example would seem to be effective, not least in the adoption of the Nijpels model¹³, regulators and those involved in assisting with problem gamblers must realise that while technology can assist with identifying problem gambling, customer tracking software was not initially developed for such a purpose. Tracking and analysis software was designed to reward increased play and to offer new products in a much more scientific manner than could have been done previously. This is a normal aspect of company marketing, but the potential effect on unrecognised problem gamblers may be catastrophic insofar as they could be drawn into a more manipulative environment. As technology has improved, so too have the opportunities to offer continuous convenience gambling. For this reason it is imperative that regulations and best practice keep in line with modern research and development.

Smartcards

The most recent empirical evidence into the usefulness of smartcard technology at time of writing is offered by the Report of the Inquiry into Smartcard Technology, (see Appendix 1) undertaken by the Independent Gambling Authority of South Australia and completed in June 2005.

The Report¹⁴ notes that the *steps towards “smart” cards have been the miniaturisation of processors and data storage devices and their integration into cards... Their common features include that they receive as well as send data and are able to “react” to external influences. The differences include whether they need to be physically inserted, merely touch or just be close to the device with which they communicate, whether they are rigid or flexible, thick or thin and large or small and whether they are cheap or expensive.*

The usefulness of smartcards is that they are multifunctional and identity specific. They can be linked through the use of pin technology to personal bank accounts and other types of system. They both store and transmit data. Examples of current and ‘in-

¹² Visitors of Holland Casino, Effectiveness of the policy for the prevention of compulsive gambling (http://www.toezichtkansspelen.nl/cijfers/visitors_hc_2001.pdf)

¹³ The Nijpels model includes automatic payout of winnings over 200 credits, a win bank, enforced breaks, more stringent betting limits, longer elapsed time between button presses, changes in lighting and sounds on the machines and no bill acceptors.

¹⁴ Independent Gambling Authority (2005) Inquiry into Smartcard Technology, Report. p4

development' technologies are discussed in the report¹⁵ and various cards are described that will allow a player with problems to set limits, ask for help and so on, but there does not appear to be evidence that they can yet identify a problem gambler in denial. It seems likely that coupled with a sophisticated player tracking programme however, this would be possible. An example of this might be when a potential problem gambler reached their limit¹⁶. In a situation where they attempt to add more credit (either beyond an accepted limit, or significantly out of kilter with their normal style of play), a tracking programme could detect this and deactivate the smartcard. The inclusion of a biometric element would reduce the chance that an excluded or 'maxed out' gambler would be able to re-enter a venue using a stolen or otherwise fraudulent card.

To be versatile and reduce the need to replace gaming software and hardware so quickly, smartcards should offer multiple technologies including contact, proximity and magnetic strip. Although this will mean that older machines cannot offer the functionality of the most up to date machines, it would serve to reduce the reluctance of the trade to adopt them as they would interact with different propriety software and reduce the need for expensive database conversion. Cost will still be a significant factor and regulators might consider lead-in times for their adoption in order to promote their use in advance of a mandatory requirement. In practice, it is highly likely that both customers and operators will swiftly become accustomed to the new technology.

The Report concludes¹⁷:

On the information presented, it would appear that the technical capability to support smartcard technology exists and is currently commercially deployable. There also appear to be viable models for pre-commitment schemes which, with extensive consultation, should be able to be deployed on the technology. The available technology solutions appear sufficient that a competitive procurement process would result in acquisition of the technology at a reasonable price.

The use of smartcards is also being assessed in other Australian jurisdictions¹⁸.

Before concluding, it is worth considering useful aspects arising from the GREF Paper: Common Standards for Gaming via New Technologies (August 2005). There are a number of points that would likely facilitate the identification of problem gamblers. Examples of industry-led principles are attached as Appendices 2 and 3.

The Central System

- A register will be kept of excluded players and of players who are limited in the number of plays.

¹⁵ Ibid. Section 4.2, pp11-20.

¹⁶ Op Cit. p19. The Worldsmart system allows the player to set "cooling-off" periods. A player can set a period of time during which an increase in limits is prohibited and can require that third party intervention (counselling) be sought before any increase in limits is required.

¹⁷ IGA Inquiry into Smartcards: 6.1 (p41)

¹⁸ A field trial was conducted in (Queensland during) 2005 to test the feasibility of patrons to using card technology when playing gaming machines. The card technology allows gaming machine players to set playing limits and aims to encourage responsible gambling practices. Treasury developed requirements for the implementation of card-based gaming, which includes industry technical standards and consumer protection measures. These requirements will be reviewed in 2005-06 to incorporate further trial outcomes. Treasury is taking a leading role in encouraging the gambling industry to assist regulators in other states to adopt a standard communication protocol for gaming machine monitoring. The protocol allows the electronic transfer of information from gaming machines to monitoring systems.

<http://www.treasury.qld.gov.au/knowledge/docs/annual-reports/2004-05/outputs/gambling.shtml>

This is an important step to take and must as a minimum be national in operation. Ideally an international database, encrypted and open only to suitably registered users should be adopted in order to prevent a problem gambler from avoiding control by the simple expedient of crossing a national border.

- A description will be given of the procedure to warn players when their playing behaviour suddenly changes, suggestion will be given for exclusion or limiting of play.

This is useful. Experience has shown that problem gamblers may be more receptive to these messages when they are not engaged in gambling activities. In line with the bullet below, consideration should be given to automatically restricting or disabling playing rights for a short period to allow a player to consider their circumstances rationally. The potential negative effect upon recreational gamblers would need to be addressed first.

- The system will be able to restrict, enable or disable each individual player for each game offered.

As above.

Question: Should monitoring of playing behaviour be allowed or even be obligated for the goal of the prevention of compulsive gambling? Are there ethical or privacy related obstacles?

Automated electronic monitoring of play would be an essential element of combating problem gambling. If such action was approved, data collected should be inaccessible except by a regulatory or other legally authorised body. Data protection issues would have to be addressed, but could be accommodated (at least within the Jersey legal model) by an appropriate derogation within the Gambling Law. The question remains whether such a response would be appropriate and proportionate. It seems difficult to justify allowing what would amount to a significant intrusion into a citizen's personal privacy when justified only by a potential threat to approximately 1-2% of the population.

- A listing will be given of total play per day for the regulator.

This should be capable of being generated and interrogated when necessary in order for a decision to be made as to whether a particular client is a problem gambler.

- The financial administration shall be organized in such a way that each individual transaction can be recovered and instant audit trails can be made.

As above.

- The reports of all incidents that are required to be registered can be derived from the system on behalf of the regulator on a daily, weekly, monthly or yearly basis or any other time period a regulator seems fit.

Depending upon whether behaviour patterns indicative of problem gambling were required to be registered, this could be of use in identifying a trend in problem gambling long term and possibly provide evidence of short-term compulsion on the part of an otherwise recreational gambler. Ethical considerations regarding freedom of choice and the right to privacy remain.

- The reports on number of games played, money wagered, wins by players and revenue for the operator will be available on request for the regulator, and if appropriate for the tax authorities.

This is an issue that ideally would be mandatory to ensure, at the very least, that licensing fees remained at an appropriate level. As a tool to identify problem gambling it would have merit and might determine areas of game play that were riskier than others on an individual basis.

The player

- A description will be given of the data on a player that are stored.

This is vital. Individuals must be made aware that certain types of data are recorded and can, under specially permitted circumstances, be made available to the authorities.

- A description will be given of the method of identification of player and checking of age.

Regulators or other appropriate authorities must also have total confidence that data recovered refers to a particular individual and have the ability to cross-check and verify.

- A description will be given of the procedure for players to exclude themselves from play.

This should include notification that the player will have identifying data added to a national or internationally held database where this is legally permitted. Notice of self-exclusion should explicitly allow addition to such a database. Players should be asked to voluntarily consent in the absence of legislation so long as protection and proper use of their personal data is ensured.

- A description will be given of the procedure for players to limit the time of play per day, per week or month.

To be most effective this should ideally take place at a time when the individual is not gambling.

- A description will be given of the procedure for players to set financial limits to their play, either per game, per play, per day, per week or month.

See above.

Question: Should limits differ from game to game? E.g. stakes on sport bets might be higher than those on casino games.

Although further research is required, there does seem to be evidence pointing to higher levels of problem gambling with particular types of gambling. Electronic gaming machines, VLTs, slots etc pose a significant risk because of the very high frequency of play. Rather than a total exclusion on types of games, might it be appropriate to limit the level of stakes as Australian research has indicated this might be a significant factor in lowering risk?

Conclusions and further thoughts

Notwithstanding the lack of an agreed international definition of 'problem gambling', it seems reasonable to suggest that technology does now exist that will help with identifying those people who cannot control their game play, whether it be clinical and long-term, or sporadic.

For those in denial, or otherwise unaware that their level of play indicates a risk, technology, such as smartcards, player tracking software and so on can provide information to the player to make their own choice – but technology cannot diagnose. Likewise information built up from a profile of player play can be used to suggest that gambling might be becoming a problem, but it remains to be determined what the level of responsibility to the player is and where it lies. This will vary from jurisdiction to jurisdiction.

Responsible authorities could enforce use of automated database technology belonging to the operators (loyalty data, etc) to have the operator post or email responsible gambling literature as well as personal player profiling data to each individual customer on a regular basis. Ensuring that operators contact their own clients in this way avoids data protection issues. Evidence would suggest that the best time for a potential problem gambler to review their level of play is when they are not engaged in gambling.

It seems reasonable to suppose that if problem gamblers occur in different varieties then technological responses to problem gambling should also be fairly flexible.

Further research should take place on identifying technical tools to identify problem gambling and in particular early identification of problematic behaviour. In order to better inform colleagues, GREF members should regularly post details of any empirical research undertaken on the Regulators section of the GREF website.

Greater standardisation of communication protocols and functionality in smartcard technology would be helpful.

Broad based regulations enforcing the need for problem gambler recognition, together with features designed to ensure periodic reflection would need to be in place to ensure that manufacturers and programmers do not produce products quicker than the legal system can keep up. Experience in Jersey with on-line monitoring of electronic gaming machines indicates that the industry will comply with the minimum required by legislation, but cannot be counted upon to be innovative in areas that do not bring commercial advantage.

Technological methods of assisting self-exclusion – probable need to legislate to allow for the exchange of personal data. Problem with exclusion is that it can be avoided either by inter-site mobility or by inter-jurisdictional mobility. Data protection issues impede the transfer of data, but this might be overcome by inserting a consent clause into a self-exclusion contract.

In the absence of an agreed definition of problem gambling would it be useful for regulators and relevant professionals to determine a level where the symptoms of problem gambling justify a policy response? Of these – which can be predicated by technological stimuli?

Regulators and policy makers need to consider whether the effect of using technical tools to identify problem gamblers is reasonable and proportionate. Government doesn't take this kind of action to monitor other disorders that are licensed or regulated, such as drinking or smoking. Considering the level of the problem, is this a necessary response?

Ultimately, it should not be the role of the Regulator to try and identify problem gambling. The onus should be on the operator in association with relevantly qualified professionals.

APPENDIX 1

Formal Recommendations of the Independent Gambling Authority of South Australia: Report on its Inquiry into Smartcard technology. June 2005

6.2 (p42)

The Authority makes the following recommendations.

- 1) The Government should procure amendments to legislation to require of the regulatory regime that when people play gaming machines, they do so in a way that -
 - (a) their play is systematically tracked over time;
 - (b) they are able to set limits on their play; and
 - (c) they are able to be excluded.

- 2) As a separate question subsequent, Government should ask Parliament to remove the requirement that gaming machines be operated by the insertion of a coin or token, for the purpose of enabling a smartcard scheme to offer cashless gambling as an option to licensees.

- 3) There should be a competitive tender process for the provision of the smartcard technology infrastructure and the rules of the pre-commitment schemes. Amongst other things –
 - (a) the tender should not be prescriptive as to the means of identification – card (smart or otherwise), biometric, keypad, etc;
 - (b) the tender should not be prescriptive about the financial model for the technology;
 - (c) the preferred technology solution is to ensure a high degree of flexibility in the structure of the pre-commitment and exclusion schemes.

- 4) The Government should procure amendments to legislation to impose a license condition on the IGC (Independent Gaming Corporation) to require it to participate in a smartcard tender process and otherwise facilitate the most cost-effective means of implementation. If, on consultation following receipt of this report, it is regarded as necessary for the Minister to have special powers to direct the IGC in this regard, those powers should be included in the amendments.

- 5) There should be further consultation on the nature and structure of pre-commitment schemes.

Appendix 2

IGC Responsible Gambling Guidelines (Abridged)

Responsible Gambling Principles:

source: http://www.igcouncil.org/aboutus_readmore.php?id=97

The Interactive Gaming Council (IGC) will develop and promote industry-wide policies, procedures and guidelines for responsible interactive gambling.

IGC members shall not knowingly market their products and services to...players who they suspect have a problem gambling disorder.

Problem Gambling Issues:

To facilitate appropriate strategies, IGC members shall designate a person/s as responsible for advancing responsible gambling policies, including, but not limited to, seeking training for staff, identification, intervention and referral of problem gamblers to assistance programs.

To demonstrate support in providing help to problem gamblers, IGC members will provide a link to the IGC's Helping Hand program (www.igcouncil.org), which includes, but is not limited to, "the 20 Questions of Gamblers Anonymous" and/or other problem gambling screening tools for their customers and their own use, taking due account of their customers' ethnic and cultural differences.

IGC members shall make every reasonable effort to identify problem gamblers. Members will address those with problems in a professional manner, including, but not limited to, making information and/or links available for problem gamblers, family members and concerned persons to guide them to supportive help lines, sites and general information. The Helping Hand program contains links for use on member websites.

IGC members shall support reasonable betting limits in an attempt to mitigate problem gambling, including, where appropriate, a "cooling off period". Additionally, when requested by a player, members will exclude the player.

The Responsible Gambling Committee will work with IGC members to establish and refine techniques to discourage problem gambling.

IGC members agree to adopt self-regulatory controls identified by the IGC, and/or agree to adhere to responsible gambling regulations / guidelines established in their respective licensing jurisdiction. In the case of conflict, the licensing jurisdiction takes precedence.

IGC members are encouraged to make donations to organizations that provide assistance, programs and services to problem gamblers.

IGC members shall provide the ability for a player to establish their own limitations and will abide by restrictions and limitations imposed by that player.

IGC members agree not to extend credit to customers. Specifically, members cannot permit a player to wager where the funding of that wager comes from the operator other than through a promotion run by the operator.

General Issues:

IGC Members will be vigilant of player accounts, in particular with respect to any negative credit experiences associated with a particular card or cardholder, including, but not limited to, fraudulent activity patterns and excessive credit card transaction chargebacks.

IGC Members will cooperate with accredited bodies that are attempting to perform research into problem gambling or underage gambling.

IGC members who conduct interactive gambling, in conjunction with companies that develop games software, whether an IGC member or not, are to incorporate, at a minimum, the following features in their software: stringent registration and ongoing player verification processes, warnings about underage gambling, the ability to exclude players, the ability to block a class of player, the ability to establish bet and deposit limits, the ability to restrict the use of multiple accounts, the ability to provide players with a statement of their account activity, toll free numbers / links / live customer support, links to problem gambling service providers.

Appendix 3

103 RESPONSIBLE GAMING OBJECTIVE: eCOGRA

Source: <http://www.ecogra.com/eGAP/Practices/103.asp>

MINIMUM REQUIREMENTS:

Problem Gaming

(103.R.7) Reasonable steps shall be taken to verify the age of new customers before or at the time of first deposit.

(103.R.8) Players' self-exclusion shall be in accordance with the following:

103.R.8.1. Procedures for self-exclusion due to problem gaming must be clearly communicated to players on the operator's website.

103.R.8.2. Self-exclusion due to a gambling problem must be for a minimum period of 6 months.

103.R.8.3. The website shall also provide a 7 day minimum 'cooling off' exclusion option. The operator reserves the right to exclude a player for a longer period of time.

103.R.8.4. Once a player has requested an exclusion due to a gambling problem, operators shall take reasonable steps to ensure that the player does not receive any promotional materials during the exclusion period.

103.R.8.5. A third party making an application for a player's exclusion shall be properly identified. Based on the circumstances, the appropriate manager will contact the player for whom the exclusion is being sought and take appropriate action.

(103.R.9) The homepage of the operator's website must contain a clear link to a Player Protection and Responsible Gaming page, which shall contain at a minimum:

103.R.9.1. A warning that gaming could be harmful if not controlled and kept in moderation;

103.R.9.2. Advice on responsible gaming and a link to sources of help on problem gaming, including helpline numbers.

103.R.9.3. An accepted and simple self-assessment process to determine risk potential.

103.R.9.4. A list of player protection measures (deposit limits and self-exclusion) that are available on the site, and access to these measures.

103.R.9.5. Details, or a link to a page with the operator's responsible gaming policy.

(103.R.10) The casino software shall contain a clear reminder to the player about responsible gaming, and a link to the Player Protection and Responsible Gaming page.

(103.R.11) Messages of an operator's support of responsible gaming shall not be misleading.

(103.R.12) Players shall be able to decrease their deposit limits per day, week and month, and these requests shall be dealt with timeously by the operator. Increases in deposit limits requested by players shall only be effective after 48 hours.

(103.R.13) A clock shall be clearly visible on the screen at all times.

(103.R.14) The denomination of each credit shall be clearly displayed on the games screen.

(103.R.15) Free play games must provide links to the same age restriction, responsible gaming and player protection information as the real money website.

104 PLAYER AND GAME FUNDS OBJECTIVE:

Player balances and game funds shall be sufficiently covered by liquid funds.

<http://www.ecogra.com/eGAP/Practices/104.asp>

MINIMUM REQUIREMENTS:

Player Funds

(104.R.1) The players' balances shall be shown as a separate liability on the operator's accounts.

(104.R.2) Players' balances at any time must be covered by liquid funds.

(104.R.3) Records shall be maintained for all purged player accounts, and any player requesting a cash-in from a purged account shall be settled according to the operator's standard cash-in procedures.

(104.R.4) If the operator adopts a policy of purging inactive player accounts, then this policy shall be clearly stated in the operator's terms and conditions.

(104.R.5) Any manual adjustments made to player accounts shall be reviewed and authorised by management.

Game Funds

(104.R.6) Due care must be exercised in setting maximum bet sizes, taking into consideration available liquid funds.

(104.R.7) Any increases in bet sizes set by the operator shall be appropriately authorised.

105 PLAYER INFORMATION OBJECTIVE:

Source: <http://www.ecogra.com/eGAP/Practices/105.asp>

Player accounts shall be managed and accounted for in a secure, safe and efficient environment. The privacy and confidentiality of all player information submitted at any point in time shall be protected from unauthorised disclosure.

MINIMUM REQUIREMENTS:

Player Confidentiality

(105.R.1) Player information must be kept confidential.

SUGGESTED PRACTICES:

Player Confidentiality

(105.P.1) The operator should only verify player information with third parties with which a formal trust relationship has been established.

(105.P.2) Use of player tracking data should not breach the players' privacy rights.

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