

**YOUNG PEOPLE
GAMBLING & the INTERNET**

AUSTRALIAN COUNCIL OF SOCIAL SERVICE
paper no. 88

First published in April 1997 by the
Australian Council of Social Service.

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ISSN: 1326 7124
ISBN: 0 85871 268 7

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FOREWORD

ORGANISATION OF THE REPORT

The report which follows has been designed to provide user-friendly access to all who may be interested in this topic whether they have prior knowledge of the gambling industry, issues in gambling research, or the future of on-line gambling, or not. The Executive Summary offers an overview of key findings and recommendations from the research. The Introduction covers all background and methodological issues and outlines the research outputs established by the Steering Committee at the beginning of the work. Section two provides a broad picture of the context in which the findings on youth perceptions fit, and why it is important to understand them.

Section three is the core of the report, providing in-depth analysis of the key findings from the research with youth. It is organised in order of the research outputs sought at the beginning of the project. Some quantitative analysis of three critical questions — age of first gambling activity, types of gambling activity undertaken, and use of Internet and video games — is included in this section.

Section four discusses the implications of the findings for the likely impact of on-line gambling services on youth. It includes discussion of public policy issues, effective approaches to responsible gambling education, and offers recommendations for further consideration and debate by those concerned with these matters. The conclu-

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sion attempts to draw together some broad observations on the culture of gambling in Australia and the future of on-line services in particular.

A Glossary of Terms follows which may assist those readers unfamiliar with gambling industry terms or acronyms, or terms specific to current or future information technology, or information technology applications and/or financial transactions.

GLOSSARY OF TERMS

It is assumed that for the purposes of this Glossary of Terms, word/terms defined below, which may have other meanings in other contexts, are defined here according to the contexts of either the gaming or wagering industries or current or future financial transactions.

Anonymous A transaction where there is a complete absence of data which could enable any record, or electronic trail, to be associated with the user.

Credit Card An existing application of magnetic stripe card technology which allows the user to conduct a financial transaction and be billed for the amount of the transaction at a later date.

Debit Card An existing application of magnetic stripe card technology which allows the user to conduct a financial transaction with the amount of the transaction directly debited from the user's bank account, assuming there are sufficient funds in that account and the correct PIN (see below) is entered by the user. These cards are also commonly known as 'keycards'. Most banks will issue such a card to minors between 12-16 with a parental authorisation and to those over 16 years old without any parental authorisation.

Disposable Card A card that is thrown away when the value is exhausted. Examples: a phone card or a disposable SVC (see below).

Electronic funds transfer at point of sale (EFTPOS) A method of payment to a retailer using telecommunications lines to access a savings or cheque account. The card is swiped through a card reading device and requires a PIN (see below) to be entered to authenticate the transaction.

Gambling A broad term used to describe the lawful placement of a wager or bet on the outcome of a future uncertain event. The term can be applied across all forms of placing a bet or putting up money on the outcome of an uncertain event.

Note: All references to gambling in this report are used generically to refer to gaming and wagering unless otherwise stated in the text.

Gaming A broad term used to describe legal forms of gambling activity which do not involve racing, but which are based on the random generation of numbers or

symbols. Gaming activities include all forms of casino gambling, gaming machines, poker machines, lotteries, pools, keno, instant lottery tickets, and minor gaming activities such as raffles, sweeps, bingo, lucky envelopes and charitable gaming.

Off-course A term used to distinguish betting and wagering on racing and/or selected sporting events which does not take place at the same location as the race or event. Such gambling is facilitated by off-course totalizators (see below), sometimes referred to as the 'tote'. TABs in each state are the only legal off-course tote system.

On-course The venue where racing (horse-harness or gallops — or greyhound racing) is conducted. On-course gambling can be conducted by two means, the on-course totalizator or bookmaker betting.

PhoneTAB A means of placing a bet through the off-course totalizator from home or from any off-course location via the telephone. A PhoneTAB account must be established first at a TAB (see below) agency which requires the same 100 point identification as banks to open such an account. Money is deposited into the account at the agency, the cost of bets is directly debited from the account, and withdrawals take place at the agency with both PIN and signature authorisation. A PIN is also required to access the account over the telephone.

Personal Identification Number (PIN) A number (or in some cases letters) allocated by a bank, other financial institution, or TAB, which is used to authenticate a financial transaction according to the records held by the issuing institution. It does not necessarily identify the user as the legitimate owner of the card or account.

Pseudonymous A transaction which has no direct or obvious link to the identity of the user but which may be indirectly linked to the user if special procedures are applied.

Reloadable Card A card which allows the user to add, or load-up, value on a repeated basis. The procedure is, or will be, usually carried out at an EFTPOS or similar terminal.

Smart Card This term describes the technology of a card (of similar size to a conventional credit card) containing a programmable microprocessor plus some memory, which can be programmed to receive, transmit, process and store information.

Stakeholders Organisations and individuals with a major stake in the industry and/or its operation. Stakeholders consulted in this study included gaming and wagering service providers, information technology service providers and experts in smart card technology applications.

Stored value card (SVC) This term describes the application of smart card technology to cards which store monetary information and can then be used in the exchange of goods and services. Microprocessor-based SVCs differ from existing stored value cards such as phonecards in that phonecards are based on magnetic stripe technology and are limited in their functionality and purpose (that is, they are not 'smart'). Future SVCs can be disposable or reloadable. There can also be multi-functional

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SVCs linked to bank accounts which contain personal information such as driver's licence, medical history or other information. An anonymous SVC would not leave any electronic trail of user identity or activity. Other forms of SVCs will leave electronic trails and have the potential for personal information to be accessed by various means.

Totalizator Agency Board (TAB) TABs are typically state government bodies (although in some states, privatisation has occurred) which facilitate off-course gambling on racing and some selected sporting events. On-course totalizators are typically managed by commercial companies such as AWA but link into the off-course totalizator pools. state governments take a percentage of the total amount wagered on all bets — this total amount spent is known as the gambling 'handle'.

User authentication A means of ensuring with some degree of confidence that the user of a card is the valid card holder and entitled to initiate transactions using that card.

A hierarchy of possible approaches include:

- possession — the presumption that the user is the owner;
- possession plus PIN — the presumption that only the owner knows the password or the PIN;
- possession plus an exact match between biometric information held on the card itself — such as a finger or thumbprint, or a retina scan. This would be the only means of foolproof identification of the legitimate owner of the card.

Virtual casino A casino which 'exists' only as it is manifested on a computer screen. It provides a visual environment in which computer-generated games, which would otherwise be conducted at a real casino venue, can be played by the user sitting in front of a computer screen. Such virtual casinos may be operated out of a 'real' casino, or they may just be generated by computers from any remote location. The operation of, or conducting business with, virtual casinos is illegal in Australia/for Australians. Existing virtual casinos are mostly off-shore US operations (primarily in the Caribbean) but there is already one in Vanuatu in the South Pacific. They can be accessed by anyone with access to the Internet.

Wagering The term used to describe and distinguish skills-based gambling in the horseracing and greyhound racing industries from non-skills-based gaming activities.

FUNDING

This project has been funded by the New South Wales Casino Community Benefit Fund, a fund derived from the payment of a levy by the Sydney Casino operator required under the Casino Control Act of 1992. The Fund is governed by a trust deed requiring the expenditure of monies derived from the levy to be for the benefit

of the community under guidelines and objectives established by the appointed Trustees. The project meets several of the stated objectives of the Fund to support research which analyses the social impact of gambling in the general community, establishes and monitors attitudes toward gambling, and provides a research base from which policy debate, public, industry and responsible gambling education, is encouraged and informed.

PROJECT MANAGEMENT

The Minister for Gaming and Racing on the recommendation of the Trustees approved the grant for the project — *Youth Perceptions of Gambling and the Impact of Future On-Line Gaming and Wagering Services on Young People* — to The Australian Council of Social Service (ACOSS) in the 1996 round of Fund grants. ACOSS is the national peak council for the community welfare sector in Australia. In addition to its widely recognised role in public policy and community advocacy work, ACOSS undertakes a broad range of social research on issues relevant to its objectives to work towards the elimination of poverty in Australia, the achievement of a more just society, and the social welfare of vulnerable or disadvantaged people.

ACOSS has undertaken this project in a joint venture agreement with external consultants from the social research and strategic analysis consultancy, MLB Consulting. The project has been managed by ACOSS with the assistance of a Steering Committee put together at the beginning of the project by ACOSS and the consultants with the approval of the Casino Community Benefit Fund Trustees. The composition of the Steering Committee is:

Ann Mara, Deputy Director, ACOSS and Project Manager

Maureen LeBlanc, Managing Director, MLB Consulting and Research Manager

Rowena Lennings, Senior Consultant, MLB Consulting

Karen Brahe, The Secretary, Casino Community Benefit Fund

Stuart Gibb, Board Member, Youth Action Policy Association

Chris Connolly, Policy Researcher, Communications Law Centre

Jenine Rassias, Policy Officer, NSW Department of Gaming and Racing

Dan O'Brien, Student Welfare Directorate, NSW Department of School Education

The external participants on the Steering Committee have taken an active and interested role in the project and worked closely with ACOSS and the consultants in many aspects of the planning for the implementation of this project.

ACKNOWLEDGMENTS

ACOSS would like to thank all those involved in this project for their commitment to achieving the objectives aimed for by ACOSS and the Casino Community Benefit Fund. In particular, we wish to acknowledge:

- the dedication and hard work of the consultants, Maureen LeBlanc and Rowena Lennings, and Maureen LeBlanc for her project design and effective research management of the study;
- the permission to conduct some components of the field research in public schools from the Department of School Education and the assistance of Dan O'Brien in liaising with School Principals;
- the assistance in recruiting 'at risk' and disadvantaged youth by Stuart Gibb and the Youth Action Policy Association;
- the invaluable background materials and input provided to the consultants by Jenine Rassias of the Department of Gaming and Racing;
- the efficiency and cooperation of Karen Brahe of the Casino Community Benefit Fund in all aspects of project management liaison with ACOSS;
- the invaluable assistance with contacts among stakeholders and the provision of background materials concerning smart card technology by Chris Connolly of the Communications Law Centre.

In addition, ACOSS and the consultants acknowledge the input of industry stakeholders, service providers and experts in on-line technology application areas. As the stakeholder consultation component of this study was undertaken only as background research to the main focus on youth perceptions and as a means of putting the findings on youth perceptions in context, anonymity was guaranteed to all those contacted. The project Steering Committee is aware of the identity of these individuals and companies/organisations and thanks them for their cooperation.

At all times throughout the implementation of this project, ACOSS and the consultants were conscious of the need for the highest ethical standards of social and market research as applied to research with underaged children and youth. Anonymity was guaranteed to all respondents, under and over 18, and parental and/or school Principal permission was obtained for all minors involved in the study.

The schools which participated in the study are not being named so as to protect the anonymity of their students as requested. The project Steering Committee is aware of these schools, both public and private, in Sydney and in Dubbo, and of the youth workers from Youth Centers in inner Sydney, the north shore and the western suburbs of Sydney and from DEETYA-sponsored Youth Training Programs in Dubbo, who assisted with recruitment. We also thank them for their cooperation.

EXECUTIVE SUMMARY

The Executive Summary which follows is intended to highlight key background issues and key findings from consultation with stakeholders and the field research with youth. In addition, it will summarise public policy recommendations concerning the implementation of future on-line gambling services, and suggestions concerning schools-based and public education strategies.

It is impossible in a project of this size and scope to cover all the important background issues or detailed findings from the research in summary form. As such, this Executive Summary is not intended to be a substitute for the full report. The data uncovered from the research with youth are rich and substantive and it is hoped that readers will take the time to explore these findings in detail. As well, sections which discuss current and future regulatory issues, are important background material to understanding the full report and its recommendations.

ON-LINE GAMBLING — BACKGROUND

- The current situation with gambling applications on-line, is that the vast majority of gambling sites are information only, with no financial transactions taking place. The only exceptions to this are a small number of virtual casinos operated mostly from off-shore US locations, such as the Bahamas.

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- Gambling in cyberspace is currently illegal in Australia. Gambling regulators (in Australia, state and territory governments are responsible) recognise that a range of on-line gambling applications are inevitable and face enormous challenges in establishing a regulatory regime which will facilitate these services. The issue of the prevention of access to minors is one of these many complex challenges.
- In NSW, the government is committed to a policy of 'harm minimisation in relation to the regulation of liquor and gambling. Recently, tougher new legislation has been applied to the prevention of access to minors and this is evident through legislation such as the Casino Control Act 1992 and the Public Lotteries Act 1996.

ON-LINE GAMBLING — STAKEHOLDER PERSPECTIVES

- Gaming and wagering suppliers and service providers see on-line gambling applications as significant sources of revenue for the future.
- There are two forms of on-line gambling services which will be part of much broader electronic commerce possibilities delivered in the future. These are i) computer-based applications delivered through the Internet, and ii) interactive broadcasting based applications delivered by cable television to the home. Internet-based electronic commerce applications will happen first as cable infrastructure is still being rolled out by telecommunications carriers and it will be sometime before fully interactive services occur.
- Smart Card technology and its applications in the form of a range of possible stored value cards, will be the means of facilitating all of these electronic commerce transactions, including gambling services.
- The drivers of smart card technology applications, and suppliers and service providers in the gambling and wagering industries, see the anonymous stored value card as the 'holy grail' of all low value electronic commerce possibilities.
- Other than anonymous stored value cards, smart card technologies will also facilitate a wide range of identified financial transactions. Privacy and security sit on opposite ends of the scale of these applications, with anonymous cards the least secure but the most private, and identified cards, the most secure but the least private leaving rich electronic trails of user activity.
- Smart card technologies and associated encryption techniques will facilitate a range of possibilities for both secure and legal electronic document exchange, and much more reliable, if not foolproof 'eligibility authentication' procedures using biometric data. It is unlikely these security devices will be widely applied to the mass market in the immediate future because of the costs involved, but such mechanisms are likely to be commonplace in the longer-term future.

- For gambling applications, the only way to control access is to link controls to payment systems as is currently the case, but smart card technologies significantly change the nature of such control mechanisms.

YOUTH ATTITUDES AND BEHAVIOURS

- The majority of youth in the sample (114 youth from metropolitan and regional New South Wales) were gambling, with or without the compliance of adults, on a range of different types of gambling and gaming services. As would be expected, most of the gambling was in the form of small value transactions, but some youth who were working or had access to funds, were gambling with larger amounts.

Note: Percentages mentioned in this report are not statistically supportable across a national sample of youth because of sample size and the limitations to NSW only.

- The most popular forms of gambling after minor gaming activities such as raffles, were scratchies and horseracing, both harness racing and gallops. Almost all youth in the sample who were over 18, were gambling on electronic gaming machines and of those, the 'cardies' in hotels were the most popular. Of the minors who were gambling regularly, most were doing it with the assistance of adult family members. Scratchies were the most common form of gambling activity undertaken by minors who were buying them without much difficulty from newsagencies.
- There were significant gender differences in gambling behaviours within the sample, with boys doing more of all kinds of gambling except bingo. Boys were more interested in sports-related gambling and skills-based gambling in general, as opposed to gaming activities.
- With the exception of youth from Indo-Chinese and Chinese cultural background in the sample, other youth of non-English speaking background were gambling less than their mainstream Australian background counterparts. Youth from Indo-Chinese and Chinese cultural backgrounds were more interested in gaming activities.
- Exposure to gambling was occurring at very early ages — for 62% of the sample under 10 years of age, and more than 82% of the sample before 13 years of age. Exposure occurs within the family environment and within the context of family relationships with parents, grandparents, other relatives and sometimes, family friends.
- There was a strong usage base for video interactivity with more than 77% of the sample playing video games at home. Boys were playing more video games, more frequently than girls, and the majority of those playing video games in arcades were boys.
- While about 80% of the sample had used the Internet either at school, at home, at friends, or in Internet cafes (the latter in Sydney only), there were significant

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differences between the majority of the sample and the minority who were recruited on the basis of being heavy Internet users, or 'Netheads'. These differences related to attitudes toward gambling, knowledge and awareness of computers and future technologies, and in particular, understanding of future on-line services.

- There was no correlation between interest in established gambling and heavy Internet usage. The heavy Internet users had invented their own form of 'gambling' which they called 'time-gambling' in order to 'win' what they most valued, that is access time on their favourite bulletin boards. This activity was not motivated by the desire to gamble, but the desire to spend more time on the Net.
- The most obvious form of addictive behaviour exhibited within the sample was among the heavy Internet users, in particular, to the Internet Relay Chats. The heavy Internet users spontaneously acknowledged they were 'addicted' to IRC activity. Cybersex interaction was the most popular content of the IRCs. Girls who were heavy Internet users were also indulging in cybersex on the IRCs but described pornography sites as 'boy's stuff'.
- Heavy Internet users were deeply suspicious of the security of future financial transactions on the Internet and had strong antagonisms toward electronic commerce and/or any forms of regulation of the Net. They saw such commercial activities and controls as turning the Internet into 'something else' from what it is now and what they wanted it to be.
- The vast majority of youth in the sample believed gambling should be restricted to those over 18 years of age, and some older youth spontaneously suggested the gambling age should be raised to 21.
- Only the heavy Internet users in the sample had a good understanding of electronic commerce possibilities and smart card technologies which would facilitate future on-line services. They were extremely well-informed about most aspects of future services, including encryption technology and privacy and security issues associated with smart cards.
- Of those youth who were interested in gambling, on-line gambling services were not seen to very appealing because they would remove the social context, and 'fun' aspects of gambling activities. In addition, those who were more seriously into gambling recognised immediately that gambling on-line would cost them more than placing bets either at the TAB, the track, or gambling at clubs and hotels, or the casino.

USAGE AND ATTITUDES CONCERNING CARD-BASED FINANCIAL TRANSACTIONS

- A surprising finding of the research was the high proportion of youth in the sample who already had their own debit cards, or 'keycards'. This includes younger respondents in the sample, some as young as 12-13 years.

- Another surprising finding was the high proportion of youth who knew their parent, or parents' PINs for parental credit and debit cards. In most cases, the knowledge was authorised, with parents trusting youth to undertake ATM or EFTPOS, and in some cases, credit transactions on their behalf.
- The majority of youth in the sample did not believe use of a PIN was an effective means of control over access to future on-line gambling services.
- The majority of youth in the sample had some understanding of, and expectation that, financial transactions in the future would utilise more effective security mechanisms such as fingerprints or retina scans.
- There was strong concern amongst older youth in the sample about how to manage their money in a careful and responsible way, particularly as it related to spending on new-found freedoms after leaving school. They were particularly concerned about the potential for getting out of control with credit cards transactions.

PERCEPTIONS OF EFFECTIVE SPECIAL EDUCATION

- The majority of youth in the sample did not find the average special education programs in schools to do with drugs, alcohol, or safe sex education, to be very effective. The programs which were seen to be effective and did have an impact on youth, all involved young (near to peer group age) speakers talking about their own negative experiences with either drugs or alcohol.
- Other than specially produced educational kits about AIDS and safe sex which were appreciated by youth because they could be studied in private, educational kits on other matters did not have an impact, and were not taken seriously by youth in the sample.
- What was taken seriously, and did have a big impact on these youth, was mass media news and current affairs coverage of other youth getting into trouble over drugs, alcohol, drink driving, or other issues. The majority of youth in the sample spontaneously mentioned the death of Anna Woods from taking ecstasy at a rave party as having a big impact on them.
- In the case of education about responsible gambling in particular, all youth in the sample who had experienced math teachers using gambling odds to illustrate probability theory, thought this was a most effective means of learning about sensible and responsible approaches to gambling. It was particularly effective because it was informal and tangential to the objectives of the class, and as such had a big impact on those youth.
- The marketing of gambling through television advertising was noticed by the majority of youth and had a big impact on the minority in the sample who were most potentially vulnerable to problem gambling behaviours, that is, boys in general, and boys in the 'at risk' groups in particular. The NSW TAB's 'adrenalin bet' ad was spontaneously mentioned by the majority of boys in the sample.

IMPLICATIONS — TAKE-UP OF ON-LINE GAMBLING SERVICES

- The study concludes that computer-based on-line gambling services delivered through the Internet are not likely to be very appealing to youth. The social context of gambling, and emotional and psychological factors associated with gambling behaviours, are either eliminated or deferred. Youth, like adult consumers, are quickly able to see that such a method of delivery not only does not offer any additional benefits over existing services, but brings disbenefits in terms of loss of the social context of gambling and additional costs for the transaction.
- The study also concludes that the delivery of gambling services through future on-line interactive broadcasting services, will hold a different kind of appeal for some youth, and adults in particular demographic segments. The social context of gambling can be created around a family television set, and if the content is appealing, that is, sports-related gambling, the availability of this form of gambling is likely to be appealing to some, particularly boys. As well, the availability of on-line interactive broadcasting gambling services in the home, will significantly increase the exposure of children to gambling in the very environment in which the genesis of gambling behaviour already occurs.

IMPLICATIONS — PUBLIC POLICY RECOMMENDATIONS

- Prohibit anonymous stored value cards as the means of conducting transactions with on-line gambling service providers.
- Require on-line gambling service providers to only offer on-line services to those customers prepared to use an identified stored value card, or 'player's card', which must be issued at an external source capable of the maximum checks on eligibility authentication.
- If such a 'player's card' is to be a reloadable card, put limits on the amount of value which can be reloaded on-line, requiring larger winnings to be collected from external sources based on the provision of legitimate identification.
- If virtual casino operations are to be allowed in Australia, make the procedures for establishing on-line accounts as difficult and secure as technically possible, preferably using digital signatures or biometric security devices as the only means of access.
- Prohibit on-line gambling applications delivered through public access vending machines or kiosks where there is no adequate means of preventing use by minors.
- Appropriate legislative and regulatory controls to ensure that all gambling service providers hold the same high level of integrity and commitment to 'harm minimisation' policies as applied to youth access, are critical and compliance should be strictly monitored by government.

IMPLICATIONS — RESPONSIBLE GAMBLING EDUCATION INITIATIVES

- Develop strategies to encourage informal and tangential learning about realistic approaches to gambling for entertainment and leisure as part of other school curricula and personal development programs. In particular, foster informal learning about gambling odds in mathematics classes, and include discussion of possible responsible gambling expenditure in money management programs for older students about to leave school.
- Develop public education strategies to specifically target the adults who expose children to gambling at very early ages, which focus on responsible gambling in general and the impact of the way they introduce their children to gambling in particular.
- Apply more rigorous controls on advertising by gambling service providers so that the public in general is given a more realistic view of gambling odds, as well as raising awareness of responsible gambling behaviours and how to find help for problem gambling.
- Develop strategies to influence the media to provide more balanced coverage of gambling so as to encourage greater public awareness of the downsides and social consequences of problem gambling in the community.

OVERVIEW OF CONCLUSIONS

- The culture of gambling is deeply imbedded in the Australian psyche. But it is questionable whether new delivery mechanisms themselves will significantly effect that popular culture constant to the extent that it changes it for better or for worse.
- New forms of delivery will have the effect of increasing exposure of youth, but youth are already heavily exposed and the majority still have sensible attitudes and behaviours about gambling. Of those youth who were vulnerable for future problem gambling, the strongest correlations are with poor education and employment opportunities, some psychological factors and socio-economic disadvantage in general.

1. INTRODUCTION

1.1 RATIONALE FOR THIS PROJECT

The rationale for doing this particular project is based on the following four considerations:

- Australia has a strong historic gambling 'culture' which exposes young people to gambling for entertainment and leisure at very early ages.
- We know from numerous other studies in Australia and overseas that there is a strong correlation between early exposure and, in combination with other attitudinal and psychological factors, the later development of problem gambling. While there has been some recent research on community perceptions in general (notably works commissioned by the Victorian Casino and Gaming Authority) there has been little dedicated research into youth attitudes and experiences with gambling and none in the public domain dedicated to the likely impact of on-line gambling on youth.
- Currently, among educators concerned with problem gambling in the community and the enormous increase in opportunities for gambling and gaming throughout the community, there is a debate about whether or not 'responsible gambling' education should be provided in schools, along the lines of drug and alcohol or safe sex programs.
- With the recent explosion of on-line information services about gambling and the impending introduction of on-line gambling transactions, the issues sur-

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rounding appropriate public policy responses to the availability of new forms of gambling have taken on some urgency. Gambling in cyberspace is, or soon will be, here to stay and the issue of the prevention of access to minors is one of the many important concerns to policy-makers, regulators and the industry in general.

On the basis of these considerations it was decided that a public domain study into youth attitudes, perceptions and experiences with gambling would provide a useful insight into not only the likely impact of on-line gambling on young people, but to the policy debate concerning responsible gambling education and public policy issues surrounding new forms of delivery of gambling services. The overall intention of this project is to inform the abovementioned four rationales by substantive research with youth which meets the following objectives.

1.2 OBJECTIVES OF THE RESEARCH

There are four key objectives of this study:

- (I) To explore and identify youth attitudes to and experiences of gambling, including attitudes to different forms of gambling, perceptions of positive and negative aspects of gambling, the sources of and influences on these attitudes; and, differences which may derive from factors such as socio-economic, cultural backgrounds or the type of school attended.
- (II) To examine knowledge of, and attitudes towards, new opportunities for on-line gambling provided by interactive services to the home, including perceptions of youth access and parental control mechanisms and general attitudes toward such home-based interactive services for entertainment and leisure.
- (III) To establish, through stakeholder analysis with a selection of relevant experts and service providers, the level of awareness of and planning for, control and security mechanisms which appropriately regulate access by young people to on-line gambling services to the home, or through other means of distribution and public access.
- (IV) Based on the above findings, to make recommendations concerning the most effective approaches and strategies for youth education about responsible gambling, including any implications which may arise from the findings for policy-makers, educators and on-line service providers.

Despite the inclusion of a stakeholder analysis component within the research to be undertaken, it was always intended that youth perceptions and the field research with young people would be the main focus of the study. As the study progressed, the stakeholder analysis component of the work took on a larger importance which went beyond just establishing the level of awareness of the issue of prevention of access to minors. This was primarily because of the complexity of the issues surrounding the use of smart card technology for future gambling services, but also

because of some of the very interesting findings from the research with youth concerning access by minors to existing gambling services, plus their current usage of card-based financial transactions.

Thus, the background parameters within Section 2 of this report will be slightly broader than originally intended. It was felt this would be necessary to give those reading this report a clearer picture of the context of future on-line gambling services and the issues arising from the payment systems which will facilitate such services. However, it is important to point out that this study is not a report on financial transactions and/or smart card technologies and makes no claims to comprehensively cover either topic. For those seeking more detailed information on these matters, the Australia Commission for the Future's recent report 'Smarts Cards and The Future of Your Money' is strongly recommended.

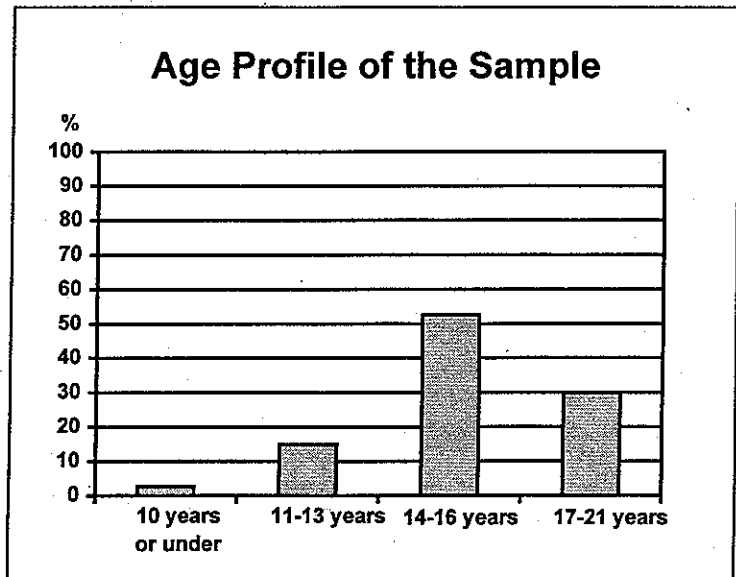
1.3 METHODOLOGY AND SAMPLE

While there have been very useful studies into gambling perceptions using quantitative methodologies to establish preferences, expenditure and community approval or disapproval patterns, it was clear that to achieve the objectives outlined above, this study would require in-depth qualitative analysis in order to get the kind of detailed information which would be useful to educators and policy-makers. Therefore, the methodology has been primarily qualitative, using a mixture of focus group and in-depth interview techniques.

However, the study has also gathered quantitative data on basic demographics and three kinds of critical usage factors in order to supplement the qualitative approach with rigorous data which would not otherwise have been possible on a sample base of this size and complexity. The usage factors are, the types of gambling taking place, the age of first bet/gambling activity, and the usage of Internet and/or video games.

These factors have been cross-tabulated against the basic demographics gathered using SPSS statistical package. While the findings will not be statistically supportable across a national sample of youth because of sample size, the limitations to NSW only (required by the funding parameters), and the fact that recruiting was targeted (see below), they still provide rigorous data which is indicative of exposure and behaviours amongst young people in NSW.

The final sample base achieved was 114 youth between the ages of ten and twenty-one years of age. The age profile of the sample is illustrated by the diagram below. It was intended that there would be a bias toward the middle (14-17 years) of the age range as this age group would be the most informative for research work with minors.



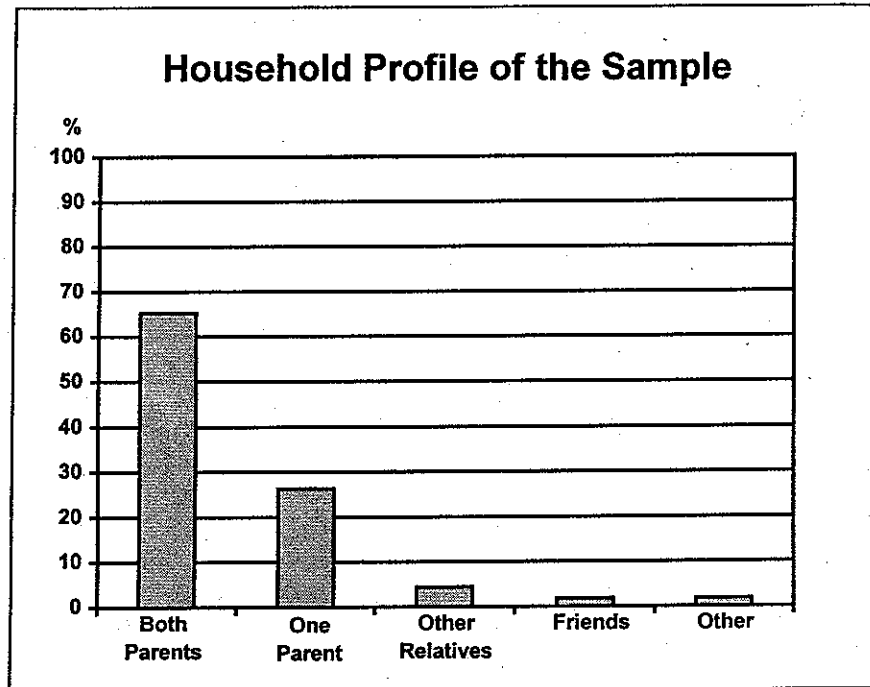
In accordance with a preference for the research to be spread between metropolitan and country/regional NSW, approximately one-third of the research was conducted in Dubbo. Within the metropolitan Sydney component of the sample, there was a broad spread of location with research conducted in inner city, inner western suburbs, far western suburbs, eastern suburbs and the north shore.

Altogether, ten focus groups and twenty in-depth interviews were conducted between the period from August 1 to October 15, 1996. A range of recruitment mechanisms were used including assistance from private and public schools, DEETYA and Youth Centres for the 'at risk' or unemployed youth, plus commercial recruitment agencies for the remainder of the sample. Recruitment parameters were based on the aim to achieve a sample adequately balanced for location, age, gender, non-English speaking background, and private and public schools background. One group of heavy Internet users was also included. All public school groups were of mixed gender, but all boys and all girls groups were conducted at private schools.

At the completion of the field research it was apparent that there was a bias in the sample towards boys (58%) over girls (42%) which undoubtedly occurred because the majority of those recruited on the basis of being heavy Internet users (or 'Netheads') were boys, and the majority of youth in the 'at risk' category were also boys. The other recruiting parameters based on schooling and language background were a relatively good reflection of proportions across the broader population, with 76% of the sample from public schools, 24% from private schools, 79% from an English only background and 21% from a non-English speaking background. There

were six youth of Aboriginal background in the sample, four from Dubbo and two from Sydney, and one in-depth interview was conducted with a 16 year old youth with a severe physical disability.

It was decided at the beginning of the project, not to gather data on socio-economic background because of the inappropriateness of asking minors about family/household income. However, an attempt was made to gather basic information on household profile through a question about living arrangements ('do you live with...') which resulted in a breakdown on two parent, one-parent, or other household living arrangements. The household profile was as follows:



Although it is difficult to be sure without hard data on family income, the consultants feel there is a slight bias in the sample toward middle-to-lower socio-economic groups, again, because of the targeted recruiting of an 'at risk'/unemployed group for both Sydney and Dubbo, and some in-depth interviews with unemployed youth. However, it is worth pointing out that there were also some in-depth interviews with youth from well-off family backgrounds and two focus groups with youth from exclusive private schools in the eastern suburbs and north shore of Sydney. Findings concerning differences in attitudes and behaviours about gambling based on socio-economic background are a result of qualitative analysis of the research with these groups and comparison with the rest of the sample.

All youth in the sample completed a two-page questionnaire (see Appendix) after the completion of either a focus group or in-depth interview based on a much more

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detailed interview guideline used by the consultants. Pilot interviews indicated that respondents were much more comfortable completing the questionnaire after they had relaxed, rather than at the beginning of groups or interviews when they were less sure of what was expected of them.

The questionnaire is extremely simple and was designed that way to make it user-friendly and straightforward for all ages within the sample. Only two respondents in the sample of 114 has some difficulty with the questionnaire, apparently because of literacy disabilities. They were assisted by the consultants. A consultant completed the questionnaire for the respondent with the physical disability based on his verbal answers. All other questionnaires were completed by the respondents. There were a few incidences of missing data on some questionnaires as is always the case in quantitative analysis.

1.4 SCOPE OF RESEARCH FINDINGS

This report focuses on eight different critical aspects of youth attitudes and behaviours about gambling and other matters relevant to the delivery of future on-line gambling services. These research outputs (or goals of the research) are outlined in the following Section 1.5.

As well, the report aims to provide an adequate background picture of current and future gambling regulation in order to place the findings about youth gambling in context. This background is covered in Section 2 of the report and includes findings from consultation with stakeholders about the issue of the prevention of access to minors.

As discussed already in the previous section on methodology, it is important to stress any quantitative findings discussed in the report are applicable to this sample base only. The reason for the primarily qualitative approach to data analysis in this report was that qualitative research facilitates the exploration of the full range of possibilities and complexities of the issues, rather than just focusing on the typical case. Thus, the supplementary quantitative findings discussed in the report are just that — that is, supplementary data indicative of key questions about youth gambling. Any percentages mentioned in the report should not be extrapolated nationally. It would be fallacious to do so as they are relevant to the sample base from NSW only, with the limitations already discussed concerning sample size and recruiting parameters.

As well, as the above, the other reason why the findings must be viewed as only indicative of the broader population is that New South Wales is the state with the highest gambling 'handle' (see Glossary under TAB) in the country. In other words, there is more expenditure on gambling and more gambling taking place in NSW, than in any other state. As the study is based on research with NSW youth only, it is highly likely that its findings reflect the attitudes and behaviours of youth who are the most exposed to gambling in Australia. This may well effect some of the most

interesting findings in the study, such as those about early exposure, high levels of awareness of the downsides of gambling, and experiences with problem-gambling among family and friends.

This does not mean the findings are invalid, or not useful as a basis for developing policy or gambling education strategies. Rather it means that the sample was made up of young people who were generally more involved in, or exposed to, gambling than if it has taken place in other states, or been spread nationally. Since policies and strategies have to be developed for all levels of involvement and exposure to gambling, in order to anticipate or prevent the spread of problem-gambling in the wider community, this research with NSW youth actually becomes a particularly valuable source of information for policy-makers and educators.

If youth in general are seen to be potentially vulnerable to new forms of delivery of gambling services, then research among youth most exposed to gambling, will provide insights useful across the wider community. It is hoped that readers of this report will keep these matters and the methodological scope of the study in mind when using the findings for strategic or other purposes.

1.5 RESEARCH OUTPUTS

The following eight key categories reflecting aspects of youth attitudes and behaviours about gambling and issues relevant to future on-line services, were developed at the beginning of the project by the consultants and the Steering Committee. They were refined as the research progressed to include any unanticipated issues arising, or unexpected findings relevant to the objectives of the study. They are:

- Awareness of gambling
- Attitudes toward gambling
- Exposure to gambling — in general
- Exposure to gambling — by type of gaming and wagering activity
- Awareness and understanding of new delivery mechanisms
- Attitudes toward the prevention of access to minors
- Understanding and usage of payment and control mechanisms
- Attitudes toward effective youth education.

Section 3 of the report — Youth Perceptions — will be organised according to these research outputs, with discussion of key demographic differences and quantitative findings outlined first so as to give a broad overview before the other issues are analysed.

2. THE CONTEXT — ISSUES AND STAKEHOLDER PERSPECTIVE

2.1 BACKGROUND AND STAKEHOLDER AWARENESS

Historically, Australia is a nation of gamblers. Why this should be so is not within the scope of this study but it is the reality we start with in any study of gambling perceptions. Australians spend more per head on gambling than any other country in the world — in 1995, about \$400 per head for Australia, as compared to \$370 per head in Hong Kong and \$170 per head in the United States.

The industry is thriving and is possibly (depending on how you define it) the fastest growing sector of the Australian economy. The gambling 'handle' has risen an astonishing 30% each year in the last two years and does not look like slowing down in the foreseeable future. Within Australia, people in NSW gamble more than any other state, accounting for \$25.4 billion of a total handle of over \$60 billion for 1995. (Figures from 'Australian and New Zealand Gambling report', IGWB, March 1996)

The changes in the industry have been phenomenal. The introduction of computerised systems, state-of-the-art totalisator technologies (in which Australia is the world leader), improvements in telecommunications, and changes in state and territory legislation, has broadened the scope and availability of gambling products and services. This has created a current environment where gambling of all kinds is available everywhere, from the corner newsagency and TAB, to casinos, and a diversified range of gambling in clubs and pubs in every state.

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The increase in options and availability of gambling products and services has not only benefited the industry itself, but has become a significant source of revenue for governments, the telecommunications industry and associated technology manufacturers and service providers. To illustrate with just one example of usage figures which reflect such revenue generation, in NSW alone there are about 15 million phone calls per annum into the NSW TAB's PhoneTAB centre, from a base of approximately 100,000 phone account customers. (Figures courtesy of NSW TAB)

REGULATION

The gambling and gaming industries are highly regulated, the main reason being that gambling is so susceptible to fraud, criminal influence and money laundering. State and territory governments take their responsibilities in regulating the industry very seriously indeed, not only for the above reason, but also because gambling is a substantial source of revenue to the states.

It has been a huge windfall to governments as the industry has expanded, especially since computerised systems have revolutionised gambling and gaming during the last 20-30 years.

In NSW, the Gaming and Betting Act 1912 and the Lotteries and Art Unions Act 1901 together prohibit the conduct of all forms of commercial gaming in the state. Particular legislation then operates to make specific gaming and wagering activities legal, for example there are separate Acts covering on and off-course wagering and the Casino Control Act which regulates the Sydney casino. But as for regulation of other industries affected by rapidly changing technologies, it is difficult for governments to keep up with the pace of change. In the case of impending on-line gambling applications which will be facilitated by electronic commerce, new regulation covering both financial transactions and gambling aspects of the changes will be required.

The complexities of writing new legislation are enormous. Issues are control, enforcement, territoriality (in a borderless world with no state, national or international boundaries), criminal influence, rigging, auditing, and of course, the prevention of access to minors, to name just a few. As well, there are many issues surrounding electronic commerce to do with fraud, criminal influence and money laundering, and critical challenges concerning privacy legislation, particularly as it applies to smart card technology applications. Currently, any form of on-line gambling is unlawful under existing legislation. But with both the gambling industry and industries associated with electronic commerce, 'straining at the leash' to implement these new applications, governments are faced with a complex set of regulatory challenges now, and for the immediate future.

Issues associated with the regulation of current and future on-line services will be discussed later in the report in Section 4.3 — Implications for public policy. This will include discussion of how current Australian Broadcasting Authority (ABA) recommendations and industry codes of practice relate to on-line content regulation.

AWARENESS OF THE ISSUE OF PREVENTION OF ACCESS TO MINORS

All state and territory governments have existing legislation in place concerning access by minors under 18 years of age. Nevertheless, gaming and wagering authorities are aware of anecdotal evidence that minors are still gambling, with or without the compliance of adults, no matter how considered or well-written the legislation may be. The issue is taken seriously by governments and new efforts to improve the legislation have taken place in several states.

For example, in NSW, the Public Lotteries Act 1996 improves upon previous legislation by making all parties to the sale of a lottery product to a minor liable for an offence under the Act — that is, the entire hierarchy of possible offenders, from Lotteries authorities and lotteries agencies, to parents/guardians and minors themselves. This aspect of the legislation is, however, difficult to enforce.

In the case of lottery products where minors are sometimes given tickets as a gift, the Act provides a defence from prosecution if the ticket was given to the minor by a parent or guardian. This is consistent with the NSW government's commitment to 'harm-minimisation', responsible service provision and responsible consumption on matters such as alcohol and/or gambling and access by minors. But as the findings of this study will illustrate, whether minors are gambling or will continue to gamble, has more to do with the culture of gambling than it has to do with existing or future legalisation, no matter how well it has been done, or how carefully the industry is regulated.

Government authorities are always going to be more responsible about the issue of the prevention of access to minors than most others in the hierarchy of service provision. Consultation with government authorities such as NSW TAB, NSW Lotteries and telecommunications providers such as Telstra, shows clearly that they take strong legal and moral positions on the issue. In some cases, such organisations have not implemented possible new products or services (for example, public access vending machines or kiosks with applications inappropriate to minors) because access to minors is impossible to prevent.

At other levels in the hierarchy of service provision, the position on access is less well considered. Some have paid little attention to the complexities of how access to minors will be prevented when on-line products and services are implemented, seeing it essentially as the government's problem, not theirs. For this reason, the licensing requirements placed upon future on-line gambling and gaming service providers by the state government, will be critical to the future gambling environment as it impacts on minors and the matter of access to minors. This will be discussed further in Section 4.3 of this report.

2.2 ON-LINE GAMBLING AND SMART CARD TECHNOLOGY

Before discussing payment systems and smart card technology applications to gambling services, it is useful to outline the situation now with gambling activity on-line.

CURRENT CYBERSPACE GAMING AND WAGERING ACTIVITIES

The following figures for current world-wide gambling sites on-line are estimations only. Any statistics about activity on the Internet are elusive and difficult to discuss with confidence — what is apparent one day may be changed/increased/out-of-date tomorrow! Based on information gathered by gambling authorities (courtesy of NSW TAB and the Department of Gaming and Racing) current indications show:

- 60+ racecourse sites
- 300+ casino sites
- 100-200 bingo/keno/lotto-type sites, and,
- about 10 virtual casino sites — operating mostly off-shore US (the Caribbean) but with some from other parts of the world.

There has been an explosion of these sites within the last twelve months including the appearance of the latter 'virtual' casino sites. At the moment, the majority of all sites, except for the virtual casinos and a few lotto-type sites operating out of Europe, are information only, that is, no actual transactions are taking place. But transactions are taking place with the virtual casinos. They are not yet truly on-line electronic commerce — you are required to establish an account first by existing means, that is, setting up a credit account by providing credit card details on-line or via the mail. It is currently illegal to do this in Australia/for Australians.

In Australia, most major race clubs already have sites and most TABs and Lottery authorities also have sites. In NSW, the NSW TAB is getting approximately 25,000 — 35,000 hits per week, about 80% from Australia, 10% from New Zealand, and another 10% from other countries. The majority of traffic is on Saturdays, the major raceday, and traffic relates directly to turnover peaks.

While the majority of these sites are currently information focused, the only things preventing them from offering 'real' gambling services are the implementation of on-line payment systems and the legislative/regulatory changes required to facilitate on-line transactions and legal on-line gambling for Australians.

FUTURE ON-LINE BROADCASTING SERVICES

There is another form of on-line gambling, other than Internet-based services, which will be available in the longer term future. That is on-line broadcasting services delivered through the hybrid fibre coax (HFC) cable systems currently being rolled out by Telstra and Optus Vision. This telephony infrastructure will be capable of delivering high-speed communications services to the home which will include a wide range of options for interactive service applications facilitated by set top units connected to the family television set.

While the cable infrastructure is being rolled out now, starting with capital city areas which the carriers see as having the highest market potential, it will still be some time, several years perhaps, before fully interactive broadcasting service applications are implemented. There are a number of reasons for this — not the least of which are considerable technical challenges to do with the set top units and many issues associated with payment systems.

It is not within the scope of this study to discuss these technical issues. But it is important to point out that when the cable infrastructure is fully operational and able to provide the multiplicity of applications facilitated by the technology, you can be sure that gambling services will be among the first to be delivered, along with the more obvious home shopping, banking, or video on demand services.

While Internet-based services are closer to being delivered in the immediate future, when interactive broadcasting services applications are available they will have one major advantage over computer-based on-line systems — that is the live video component of the services, which is still many years away for on-line computer systems. For entertainment and leisure applications, particularly sports-type applications, interactive broadcasting services will open up a new world of what is available and possible in the home. They will draw in the much larger market of those who are not computer literate, or do not have computers at home. Therefore in any analysis of the likely impact of future gambling services on youth, interactive broadcasting services must be included, even if they are not as close to implementation as Internet-based services.

PAYMENT SYSTEMS

In the case of on-line gaming and wagering applications, there is only one way to control access and that is to link controls to payment systems. The prevention of access to minors to existing gambling services is also managed this way, through controls placed on service providers. Thus, it is illegal for minors to place a bet at the TAB or with an on-course bookmaker, it is illegal for a agency to sell scratchies or lotto tickets to a minor, and premises which sell alcohol and offer gaming machines facilities are bound to comply with age-restricted access requirements. Most stakeholders consulted for this study acknowledge that despite these controls, the reality is some minors are still able to gain access.

THE CONTEXT

The nearest service to future on-line gambling activities which exists now (since 1994) in NSW, is Betlink. This is an automated betting system by which a personal computer can be directly linked to the TAB and betting can take place without the assistance of an operator. Usage of this service is primarily the domain of the professional punter, or punting syndicates. Legitimate users are carefully controlled by the TAB and large, up-front account access fees would prevent the average minor from usage.

But there are no account access fees for the next nearest existing service to future on-line gambling — that is telephone betting, using PhoneTAB — all that is required is there be sufficient funds to cover the bet. TABs require the same 100 point identification as banks to open PhoneTAB accounts. TAB operators are also required to consider 'voice-age' in their dealings with customers. But these controls still do not necessarily prevent minors from using their parent's or other family member's accounts, although the withdrawal of possible winnings is controlled by authorised signature and an account PIN.

As long as the methods of payment and collection of possible winnings are externally managed, through agencies and other intermediaries, in this way, some safeguards will apply. But with true electronic commerce, either instant on-line accounts with a debit card, or electronic cash transaction with a stored value card, no such safeguards will exist to prevent access to minors. Not unless a solution is found within the technological 'wizardry' of smart cards and gambling service providers are required to apply sophisticated technical solutions to controls over access to minors.

SMART CARD TECHNOLOGY APPLICATIONS

The following discussion is a brief overview of how smart card technology might apply in gambling services whether they are delivered by on-line computer or interactive broadcasting technology. It is not intended that this report covers all aspects of electronic commerce or other product and service applications. As previously mentioned, if the reader wishes to pursue further information about smart cards, the recent Commission for the Future report (see Appendix) is highly recommended.

It was clear from consultation with stakeholders that smart card technology applications are the key to all electronic commerce possibilities including on-line gaming and wagering. In particular, the anonymous stored value card was considered to be the 'holy grail' (as some stakeholders described it) for all frequent low value financial transactions such as the kind of transaction activity common in the gambling industry. As well as use for Internet forms of electronic commerce, the stored value card can also be used for a wide variety of other non-Internet based services, such as vending machines or public access kiosks, low value retail transactions, public transport applications, and many other kinds of entertainment and leisure facilities other than gambling.

Smart card technology is already being trialed in Australia in its various forms. In summary, the range of applications which will be available are:

- anonymous stored value cards — either disposable or reloadable;
- pseudonymous stored value cards — which will hold some information but split up in such a way as to have some degree of privacy controls, for example, the card issuer may hold transaction history and the bank hold name and address information and the two will never meet except under exceptional circumstances governed by agreements with the customer;
- multifunctional stored value cards — which will have the capacity to be linked to bank accounts, or existing credit service providers and which may also contain a range of personal information, for example, driver's licence, medicare and/or medical history information, customer preference and/or loyalty scheme information, and more.

The issues surrounding the implementation of smart card technologies are complex and many. Critical concerns are privacy, security, the supervisory role of the Reserve Bank or equivalent for SVCs, technical standards, fraud/money laundering/tax evasion, pricing structures, and the complex network of agreements required between issuers, payee and payer — just to name the main ones.

There are many different kinds of organisations which will wish to enter the market for smart cards other than the more obvious banks and existing card issuer groups. Organisations such as, Telstra (already the biggest player in anonymous, disposable SVCs in the form of Phonecards), public transport authorities, airlines, or in gambling and gaming applications, state lottery authorities or TABs for example all have strong interest in the applications possibilities. Whether such organisations will be allowed to issue mass-market SVCs is one of the central issues facing regulators and financial service authorities.

While privacy matters and the use and misuse of personal information is of vital concern to all involved, there are other consumer protection issues which need to be addressed — such as pricing. The potential for issue fees, re-issue fees, reloading fees, transaction fees, make smart card technology a very attractive proposition for many organisations, as well as the cost-efficiencies to be gained on other ways. In all, it would not be an exaggeration to say that there are strong vested interests involved for suppliers and service providers in implementing smart card technologies across a wide range of applications, not the least of which is gambling industry applications.

Given the above, and the background about existing payment systems, what are the implications for youth access to future gambling services using smart card technology? If the method of payment is an anonymous reloadable SVC, there is no means of linking payment systems to control of access. Even if the method of payment is an 'identified' multifunctional SVC, it still does not stop minors from unauthorised, or authorised, use of other people's cards. The question of whether or not there are any solutions, technical or otherwise, to these matters, will be discussed in the following section, based on some stakeholder views of what the options might be.

2.3 IMPLICATIONS FOR YOUTH ACCESS

Of the stakeholders consulted during this study about youth gambling, those with the highest levels of awareness of the issue of access to minors were clearly government authorities and service providers, plus those concerned with regulatory and consumer privacy matters. But it was actually some technical service providers and/or experts in smart card technologies who discussed the most interesting options for the prevention of access to minors, although they may not have initially considered it a high priority matter.

User authentication matters are one of the most interesting aspects of smart card technology. User authentication is highly problematic with existing card technologies since it depends on the assumption that the holder of the card and the entry of the correct PIN identifies the legitimate owner of the card — which is simply not always the case. Smart card technologies offer new ways of more secure, if not foolproof, user authentication by means such as digital signatures, or biometric information contained in the memory of the card.

The development of digital signatures has been motivated by the need to find a way to give absolute security and legal standing to electronic documents. It involves the use of a key pair, a private key and a public key, the latter held in a public register. This is called 'public key authentication framework'. Such a security device means that no-one can alter electronic documents without the recipient being alerted to changes by means of highly sophisticated encryption techniques. The procedures are foolproof, but if the private key is known to somebody else, it can be used for fraudulent purposes. In the case of biometric data security methods, they are foolproof if applied in an external location, such as at an ATM or EFTPOS terminal, but it is possible (with a great deal of time and effort) that they could be falsified or hacked from a home terminal by creating a duplicate of the legitimate fingerprint or retina scan.

The problem with public key authentication framework and foolproof user identification is that privacy and security sit on opposite ends of the scale of smart card applications — that is, the most private card, an anonymous SVC, is the least secure, and the most secure, a multifunctional card containing biometric information such as a fingerprint, is the least private. The Commission for the Future study showed that consumers are willing to trade off some degree of privacy for security particularly as it applies to larger value transactions. But when it comes to leaving rich electronic trails of personal entertainment and leisure activities, it is highly questionable whether such trade-offs will apply.

Are there any other options? The answer is yes, if some of most sophisticated smart card options are applied. It is possible to have an anonymous SVC with a biometric check for user identification based on the provision of evidence that the user complies with some attribute or eligibility requirement. For example, this may be that the user has the authority to enter, or is entitled to a concession, or, is eligible on the basis of age. Thus if these possibilities are taken to their logical conclusion, one could envision a scenario where all those entering an age-restricted premises —

such as a casino — would insert a SVC into a card reader and place their finger onto a scanner which would match the biometric information held on the card, before they were given the authority to enter.

It is highly unlikely that such sophisticated security techniques are going to be widely applied to mass market smart cards in the immediate future, although they clearly will be an extremely useful tool for managing high security risk premises or even one-off special event venues such as the Olympics. It is also highly debatable whether we want a society where such eligibility authentication is applied to mass market entertainment and leisure facilities.

Nevertheless, it is possible that such solutions could be applied to the matter of the prevention of access to minors to a range of future on-line services. Interestingly enough, while many, if not the majority, of adults today may recoil at the thought of such '1984' type controlled scenarios, young people both expect, and have less difficulty with, such futuristic technologies — as the findings in this report will illustrate.
