Why do Internet gamblers prefer online versus land-based venues? Some preliminary findings and implications

Robert T. Wood, Robert J. Williams, & Paul K. Lawton, University of Lethbridge, Lethbridge, Alberta, Canada. E-mail: robert.wood@uleth.ca

Abstract

At a time when land-based gambling opportunities are widely available, why might some people choose or prefer to gamble on the Internet? We investigate this question using qualitative and quantitative data collected from an Internet-based survey of 1,920 Internet gamblers. The primary reasons people gave for preferring Internet gambling were (a) the relative convenience, comfort, and ease of Internet gambling; (b) an aversion to the atmosphere and clientele of land-based venues; (c) a preference for the pace and nature of online game-play; and (d) the potential for higher wins and lower overall expenditures when gambling online. Findings suggest that online venues may offer their clientele a range of experiences and benefits that are perceived to be unavailable at land-based venues. The authors recommend research into whether a competitive edge exists between different aspects of the gambling market, including Internet venues versus land-based gambling establishments.

Keywords: gambling, Internet, online, electronic, survey, preference, convenience, expenditures

Introduction

Since the beginning of the widespread introduction of Internet access into homes and workplaces in the early 1990s, Internet gambling opportunities have expanded at an astonishingly rapid rate, and more and more people are apt to gamble their money online. In 1995, there were only 24 Internet gambling sites accessible online (Watson, Liddell Jr., Moore, & Eshee Jr., 2004). Just over a decade later, in 2006, that number has increased to over 100 times that, to more than 2,500 Internet gambling Web sites, consisting of 1,083 online casinos, 592 sports and race-books, 532 poker rooms, 224 online bingos, 49 skill game sites, 30 betting exchanges, 25 lottery sites, and 17 backgammon sites (Casino City, 2006). 1

It is difficult to determine the actual number of people who gamble online, as it is certainly a figure that has changed relatively quickly over the past decade. Current industry estimates suggest that the worldwide number of Internet gamblers is at least 14 million and possibly as high as 23 million (American Gaming Association, 2006a; RSe Consulting, 2006), although these figures have not been investigated or confirmed by rigorous academic research. Researchers have, however, attempted to assess the overall

Internet gambling prevalence rate among the general population in particular jurisdictions. Observed rates have been consistently low, with most studies conducted in the late 1990s and early 2000s finding prevalence rates below 2% (e.g., Amey, 2001; Azmier, 2000; Canadian Partnership for Responsible Gambling, 2004; Brown, Patton, Dhaliwal, Pankratz, & Broszeit, 2002; Griffiths, 2001; Petry & Mallya, 2004; Smith & Wynne, 2002; Welte, Barnes, Wieczorek, Tidwell, & Parker, 2002). When examining more recent studies, we have reason to believe that the rate of Internet gambling is increasing in many societies. The most recent surveys of the general U.S. adult population in 2006, for example, have found rates of 3% (Rasmussen Reports, 2006) and 4% (Luntz, Maslansky Strategic Research, 2006). The most recent Canada-wide study has found rates of 2.3% to 3.6%, with the higher estimate including high-risk stocks and day trading, and the lower estimate excluding these (Wood & Williams, 2006).

Given the relatively low prevalence rates of Internet gambling, it is no surprise that little is reported in the academic literature about the demographic characteristics of Internet gamblers and how they may systematically differ from nongamblers and land-based gamblers. Recent studies, however, are beginning to shed at least some light on the issue, suggesting that participation in Internet gambling is indicative of a "digital divide," with Internet gambling occurring at higher rates among skilled professionals, whose jobs rely upon familiarity with and competent use of the Internet (Howard, Rainie, & Jones, 2001; Woolley, 2003). Studies of Internet gambling conducted in Australia, in 2001 and 2002, partly confirm this digital divide argument, finding that rates of Internet gambling are higher among men, younger adults, people with professional or managerial occupations, and people who earn above-average incomes (Woolley, 2003; McMillen & Woolley, 2003). Largely confirming these results, another online study of 552 Internet gamblers commissioned by the American Gaming Association, in 2006, found that 68% were male, 70% were under 40 years old, 61% had at least a college degree, 41% earned more than \$75,000 a year, almost all of them used the Internet for other activities, and 70% had only begun gambling online in the past 2 years (American Gaming Association, 2006b). In addition to these demographic characteristics, a number of studies suggest that Internet gamblers, relative to others, are much more likely to be problem or pathological gamblers (Griffiths, Wood, & Parke, 2006; Ladd & Petry, 2002; Wood & Williams, 2007b).

Another issue that has received relatively little attention, and the one that is most important for the present article, is the reasons that people might choose to gamble online. Indeed, in most jurisdictions, land-based venues have become far more prolific and easily accessible. Why then would someone choose to gamble on the Internet instead of, or in addition to, gambling at a land-based venue? Presumably, for some gamblers, the Internet affords them an overall experience that they prefer and that land-based venues cannot provide. A recent American Gaming Association (2006b) study found that the main reasons people gave for gambling online were convenience (48%); fun/excitement/entertainment (24%); greater comfort, not having to drive (24%); ability to win money (9%); and enjoyment of the anonymity and privacy (6%). In another recent

study, Derevensky, Gupta, & McBride (2006) found that "boredom" and "for excitement" were the most common reasons cited by Internet-gambling youth and young adults, aged 12 to 24. Recently, Griffiths (2006) has also identified multilingual service, faster play speed, and the ability to pretend to be the opposite sex as significant advantages afforded by Internet versus land-based gambling.² Wood & Williams (2007b) add that some people may gravitate toward Internet gambling due to their perceptions that online venues offer better payout rates.

It is encouraging to see studies emerging that investigate the characteristics and motivations of the growing population of Internet gamblers. Clearly, however, this population is still lamentably understudied, and substantially more research needs to be conducted on a wide range of topics and issues related to Internet gambling. The present study seeks to contribute to this much-needed body of literature by investigating the characteristics of people who prefer Internet to land-based gambling, as well as the reasons they provide for gambling on the Internet. This study is largely exploratory in nature and seeks to establish at least a small foundation from which future, more comprehensive, studies may proceed.

Methodology

The present investigation stems from a broader survey-based study of Internet gambling conducted by two of the present authors in 2003 and 2004. This larger study explored the characteristics of North American Internet gamblers, their gambling behaviour, and their propensity for problem gambling (see Wood & Williams, 2007b). Additionally, and of importance to the present investigation, respondents were asked about their preferences for Internet versus land-based gambling, and they were afforded an opportunity to explain the reasons for their preference for Internet gambling.

Respondents were recruited using prominent banner advertisements placed at three online gambling portals, to which we have offered anonymity, based in the United States. A portal is a type of filter site that offers links to and information about thousands of Internet gambling venues, such as casinos, bingos, and sports books. Portal sites, however, are not actual gambling sites insofar as they do not host games or betting services (they simply provide information and links). Clicking the banner advertisement immediately linked potential respondents to an online questionnaire. As a participation incentive, respondents were offered a gift valued at \$5 U.S. The gift was a hand-sized plastic coin/token scooper, which is used for scooping coins or tokens out of the trough of a slot machine or similar gaming machine. Before being linked into the actual survey, all respondents encountered a home page containing information about the goals of the study, the voluntary and anonymous nature of their participation, and the contact information for the primary researcher. This recruitment strategy generated completed surveys from 1,920 Internet gamblers and was highly demographically diverse (which we discuss in a forthcoming section). Recruitment and data collection began at the beginning of October 2003 and finished at the end of January 2004.

Although our sample was large and diverse, the sample is also self-selected. Thus, it is not possible to ensure that it is representative of the broader population of Internet gamblers. Unfortunately, this is simply one of the current pitfalls of research into Internet gambling. A highly representative sample would perhaps more likely be achieved using random-digit-dialling (RDD) techniques. However, given the low prevalence rate of Internet gambling, tens of thousands of screening interviews would be required to generate even a small sample of only a few hundred (see Wood & Williams, 2007a). Such an endeavour is potentially cost prohibitive and was certainly beyond the resources available for the present study. In contrast, our online recruitment technique allowed us to generate a fairly sizeable sample at substantially lower cost, albeit with some potential compromise to representation. Thus, we ask readers to bear this potential limitation in mind when assessing our findings, and we strongly encourage future research into issues associated with recruiting sufficiently large and representative samples of Internet gamblers.

In addition to assessing demographic characteristics and gambling behaviour, the survey included a question asking respondents to report whether they preferred online gambling as opposed to gambling at land-based venues. 73.8% of the sample claimed that they preferred Internet gambling, and these people were prompted to explain why they preferred gambling online by typing an answer in a text-field box. This question yielded 770 open-ended explanations from 536 gamblers (individual gamblers were able to provide multiple reasons). Critics might observe that this is a relatively low response rate, with explanations provided by only 38% of all participants who claimed to prefer Internet gambling. Future studies might achieve a higher response rate by providing both fixed-choice categories (so respondents pick the reasons for their preference from a list of choices) and open-ended text fields. Indeed, the inclusion of fixed choices might, for some participants, reduce the perceived amount of effort involved in providing a rationale for their preference.

All open-ended responses were content-analyzed using both open and axial coding. Open coding is a qualitative coding phase whereby we intensively read the 770 open-ended responses for common themes, patterns, and issues, which we organized and labelled into preference categories. Twenty distinct preference categories emerged from several phases of open coding, with an additional "other" category for a small proportion of idiosyncratic responses (see Table 1). We then used these 21 categories to construct a coding frame and tally sheet for subsequent phases of axial, or "focussed," coding of the data. Axial coding entailed revisiting the data, this time using a coding frame to systematically categorize each respondent's reasons for preferring Internet gambling and a tally sheet to numerically assess the frequency of each preference. Axial coding was conducted separately by two of the three authors. Both parties identically coded 746 of the 770 responses, yielding a strong reliability coefficient of 0.97.

Table 1.

Reasons for preferring Internet gambling versus gambling at a land-based venue.

Reason	Percentage of all reasons given by respondents*	
Convenience	12.9%	
Ease	12.2%	
Comfort	11.7%	
Distance from casino	10.0%	
Privacy	9.8%	
Dislike land-based clientele	5.1%	
Dislike crowds	4.7%	
Dislike noise	4.1%	
Dislike smoke	3.9%	
High speed of game play	3.8%	
Leisurely pace of game play	3.1%	
Lower overall expenditure	3.0%	
More fun	3.0%	
Preference for Internet interface	2.5%	
Higher potential wins	1.8%	
Safety concerns	1.6%	
Lower secondary costs	1.0%	
Aversion to casino atmosphere	0.7%	
Land-based gambling illegal	0.5%	
Disability	0.4%	
Other	4.3%	

^{*}Respondents could offer multiple reasons.

Findings

Sample characteristics

Our sample was highly diverse in terms of its demographic composition (see Table 2 for a detailed overview). 56% percent of respondents were men and 44% were women. This suggests that Internet gambling is becoming a less gendered phenomenon than has been speculated by others. However, further research, with a highly representative sample, needs to be conducted into the gender distribution of Internet gamblers, and particularly into potential gender differences in experiences, perceptions, and behaviour related to Internet gambling. The average age of respondents was 34 years, with a range of 18 to 84 years. Consistent with other studies about the origin of online gamblers (*The Wager*, 1999), 87% of the sample originated from the U.S., 10% from Canada, and only 3% from all other countries combined. This distribution, which seems biased toward North America, is likely partly due to the fact that our survey was only offered in English. Ideally, in future studies, greater international representation would be desirable, although it would require fairly costly translation of whatever survey instruments were used.

On average, respondents reported spending 5 hours per week gambling on the Internet. The median weekly time reported was 2 hours. Only 4.1% claimed to gamble online in excess of 20 hours per week. The online game most often played was slots/VLTs (40.9%), with cards (mostly blackjack) at 33.3%, keno/bingo at 14.4%, sports betting at 6.2%, and dice at 2.7%. A surprising 42.7% of the sample were classified as moderate (22.6%) or severe (20.1%) problem gamblers using the Canadian Problem Gambling Index (CPGI, Ferris & Wynne, 2001). The computer most often used for online gambling was located in their own home for 86.6%, whereas 4.3% claimed that their primary gaming computer was located in their workplace. When asked more specifically about workplace gambling, a total of 16.3% indicated they gamble from the workplace either "once in a while" (13.4%) or "often" (2.9%).

Suggesting that the sample comprises relatively computer-savvy individuals, 71.6% either agreed or strongly agreed with the statement, "I have a good deal of knowledge when it comes to using computers." Furthermore, suggesting a high level of comfort with online transactions, 65.3% either agreed or strongly agreed with the statement, "I feel comfortable buying merchandise or other products on the Internet." Many of the respondents reported having been active in a number of Internet-based activities over the previous month.

Of the 1,920 people who participated in the survey, 73.8% indicated that they preferred Internet gambling over land-based gambling. In order to assess any relationships between

particular demographic characteristics and a preference for Internet gambling, we cross-tabulated demographic characteristics by gambling preference (see Table 2). We conducted chi-square tests to assess the extent to which any observed differences between categories were statistically significant (asymmetric significance, $\alpha = 0.05$). The only differences that were found to be significant were those related to problem gambling, gender, disability, and game preference. Given the limitations of our data set, we can only hypothesize at this time about the reasons for these observed differences. Nonetheless, we offer the following ideas for consideration.

Problem gamblers were significantly less likely than non-problem gamblers to prefer Internet gambling. This suggests that although many problem gamblers may prefer land-based gambling, they may utilize online services when land-based ones are unavailable, closed, or temporarily inaccessible. An alternative explanation may be that problem gamblers simply are likely to access all forms of available gambling, even though some forms may ideally be preferred over others.

Among male respondents, 75.6% reported that they preferred gambling on the Internet versus gambling at a land-based venue. In comparison, 71.5% of women reported the same. While the difference appears to be small, a marginally significant chi-square statistic (0.046) indicated that the difference is a systematic one. It is a fairly well-established fact that Internet use varies according to gender (see Wasserman & Richmond-Abbott, 2005). Thus, it is possible that our findings simply reflect broader gender differences in Internet use and Internet communication. Alternatively, however, these findings might also be reflective of actual gendered experiences while gambling online, suggesting that online gambling sites are somewhat more hospitable for men than for women. In any event, it is crucial that future research delve into the issue of gender differences in the world of Internet gambling.

People identifying themselves as disabled were less likely than nondisabled individuals to prefer Internet gambling. The data do not provide information about the specific nature of respondents' disabilities, so it is difficult to provide a nuanced interpretation of this finding. In cases where peoples' disabilities are physical in nature, one might have expected that potential barriers related to access and transportation might have resulted in a preference for Internet gambling instead. However, if many of these individuals use land-based gambling as an opportunity for social interaction and networking, and if other such opportunities are relatively limited, then this could account for the significant difference in disabled versus nondisabled respondents' preferences. In any case, we encourage other researchers to further investigate this relationship.

Preference for Internet versus land-based gambling also varied significantly by the specific game respondents reported playing most often. Those who most often played VLT or slot-type games, often called electronic gaming machines (EGMs), were the most likely to prefer Internet gambling. Those who most often played keno or bingo were the

Table 2

Preference by demographic characteristics and game played most often.

Category	Percentage of sample	Percentage preferring Internet gambling over land-based gambling
Gender*		
Male	55.8	75.6
Female	44.2	71.5
Age		
18–19	7.5	73.2
20–24	21.1	76.8
25–29	16.0	70.5
30–34	14.5	69.7
35–39	12.2	70.4
40–44	9.8	74.6
45–49	8.2	76.3
50–54	5.4	80.6
55–59	3.0	82.5
60+	2.2	75.0
Country of residence		
U.S.	86.8	74.1
Canada	10.1	75.5
Other	2.8	60.4
Disability status*		
Disabled	12.3	61.7
Not disabled	87.7	75.5
Problem gambling*		
Problem gamblers	42.7	66.6
Non-problem gamblers	57.3	79.1
Game played most often		
Keno/Bingo*	14.4	62.2
Cards	33.3	74.8
Dice	2.7	64.6
Sports betting	6.2	64.9
Slots/VLT*	40.9	76.2

^{*}Indicates significant chi-square statistic (asymmetric significance, $\alpha = 0.05$).

least likely. The relationship between EGMs and preference for Internet gambling may be due to the similarities that online EGMs share with land-based ones. The interfaces are either identical or highly similar, and playing EGMs in either type of venue is likely a fairly solitary or socially insular experience (insofar as EGMs do not promote interaction with other people). Online EGMs, however, may offer added advantages or conveniences (e.g., they never close) that land-based ones do not. The finding that bingo/keno players were less likely to prefer Internet gambling could be a function of the fact that these are traditionally fairly social games, which for some people might even form the basis of a particular subculture (e.g., a bingo subculture). Thus, playing these games at land-based venues may offer some gamblers social benefits not easily available online.

Reasons for preferring Internet gambling

Convenience, ease, and comfort

The reasons respondents gave for preferring Internet gambling were numerous, spanning 20 distinct themes and categories (see Table 1). Percentages reported in the charts and in the text refer to the percentage of all reasons given (536 people provided 770 reasons). The most common reasons pertained to the relative convenience (12.9%), ease (12.2%), and comfort (11.7%) of Internet gambling. Convenience refers to the idea that Internet gambling opportunities are accessible at any time of the day and with minimal effort. Ease is a related concept, but refers to the idea that the sites and games are easy to find, easy to join, and relatively easy to play. Comfort refers to the theme that Internet gambling affords the benefit of playing from the comfort of one's own home. A number of people, for example, referred in colloquial language to the comfort of "being able to gamble in my pyjamas." Another commonly stated reason, which is related to convenience, is the distance that many respondents lived from a land-based gambling venue (10.0%). Thus, a number of people explained how they do not live within a reasonable driving distance of a casino, and so Internet gambling was the most viable option for them. This, however, does not clarify whether these people would still choose to gamble on the Internet if they did indeed live closer to a land-based venue.

Aversion to land-based gambling venues

Other reasons were related to people's perceptions of the ambience and clientele characteristic of land-based venues. A small proportion of people (0.7%) made the very general statement that they simply "don't like casinos." Others, however, were more specific. A sizeable proportion (9.8%) felt that they had far more privacy when gambling online. Others claimed to dislike land-based venues for a number of additional reasons, including an aversion to smoke (3.9%), an aversion to the usual noise (4.1%), and an aversion to crowded environments (4.7%). Still others (5.1%) explicitly claimed to dislike the "sorts of people" one often encounters in casinos and other land-based venues.

On a related theme, 1.6% of respondents claimed to feel unsafe in land-based venues.

Online gaming experience

Other reasons were related to the intrinsic nature of the online gaming experience. These people often mentioned the ability to control or customize the rate of play. 3.8% of respondents, for example, preferred gambling online since it allowed them to play at a relatively fast pace. These people typically referred to the potentially short amount of time between games, spins, and rolls. Others reported a preference for Internet gambling as it afforded a more leisurely pace of play (3.1%). These people typically appreciated being able to "take their time" when gambling online. 2.5% made comments suggesting that they simply "like the Internet," further saying that Internet gambling is more immersing (e.g., they are able to focus better without distractions), as well as conducive to multitasking (e.g., gambling while surfing the Web). A further 3.0% simply claimed that gambling on the Internet is "more fun."

Wins and expenditures

Some observers might be quick to speculate that Internet gamblers are largely attracted by the perception of potentially larger wins and lower overall expenditures when gambling online. Our results, however, would not strongly support such predictions. Only 1.8% of our respondents identified higher potential winnings as their reason for gambling online. Similarly, only 3.0% mentioned smaller losses as the reason. An additional 1.0% referred to lower secondary costs, such as travel and meal expenses, as the reason they gamble online rather than in a land-based venue.

Other reasons

Given the substantial number of respondents who identified themselves as living with a disability (12.3%), we were surprised to find that disability was not often reported as a reason for gambling online, as opposed to gambling at a land-based venue (which could potentially pose problems of access and mobility for some disabled persons). Only three people, or 0.4% of the sample, reported disability as a reason for their online gambling preference.

A very small proportion (0.5%) claimed to gamble online because land-based gambling is illegal and therefore unavailable in their particular jurisdiction. Again, as with people who live long distances from land-based venues, it is unclear whether this 0.5% would prefer to gamble in a land-based venue if one was actually available.

Conclusion

Summary and suggestions for future research

It is clear that the population of Internet gamblers is a relatively demographically diverse group. It is also clear that some characteristics seem to be associated with a higher or lower likelihood of preferring Internet versus land-based opportunities. Disabled individuals were significantly less likely than nondisabled individuals to prefer Internet gambling. Problem gamblers versus non-problem gamblers were likewise less likely to prefer Internet gambling. People who most often played slots or VLTs were significantly more likely than players who preferred other games to prefer Internet over land-based gambling. Finally, men were significantly more likely than women to prefer Internet gambling. Unfortunately, the limitations of our data set (which we explain in the following section of this article) do not allow us to explore conclusively the causes or reasons for these systematic differences. Thus, we offer to future research the task of not only exploring the reasons some people prefer to gamble online but also effecting a more nuanced understanding of how and why those reasons might vary according to demographic categories and preferred game.

When given the opportunity in an open-ended question to explain why they preferred Internet versus land-based gambling, people offered several general types of reasons. Most common was to refer to the greater convenience, ease, and comfort of Internet gambling. Second was an aversion to the atmosphere, crowds, and clientele of land-based venues. Third was a preference for the nature of the online gaming experience. Finally, there were a few people who indicated they gambled on the Internet because of the potential for better odds, higher wins, and smaller losses. Given these stated preferences, Internet gambling sites may be offering clientele a range of potential experiences and benefits that are perceived to be unavailable in land-based venues. It is possible that these unique attributes and advantages help Internet gambling sites carve out a competitive niche that allows them to compete successfully with land-based venues. The present study, however, is not able to determine the extent to which Internet gambling sites are taking business away from land-based venues. It is indeed possible that each sort of opportunity serves a distinct market, and that many Internet gamblers simply would not gamble at all if no Internet-based opportunities were available. In any case, future research should be conducted into competition between Internet and land-based venues.

If Internet gambling does in fact possess a potentially competitive edge, or if it attracts many people who otherwise would not gamble, there may be important and concerning consequences with respect to the prevalence of problem gambling. Recent research suggests that the convenience of Internet gambling, coupled with its immersive qualities, may lead to much higher than normal levels of game-play. This, for some people, may facilitate the emergence of a gambling problem (see Griffiths, 2003; Griffiths, 1999;

Griffiths & Parke, 2002; Griffiths & Wood, 2000; LaRose, Mastro, & Eastin, 2001). Our findings lend some tentative support to such an argument, insofar as a substantial proportion of our sample was classified as having either a moderate (CPGI 3+) or a severe (CPGI 8+) gambling problem. Conversely, however, rather than the Internet creating or facilitating a gambling problem that did not previously exist, it is also possible that many people with preexisting gambling problems simply gravitate to the Internet. In any case, further validating and untangling the dynamics of this potential relationship between problem and Internet gambling also remains the task of future research.

Limitations

There are a number of limitations inherent to the present study, and we feel it is important to clearly acknowledge them, not only to ensure that our study is transparent to the critical observer but also to offer whatever additional lessons we can for future research. The most serious limitation to this study is the potentially nonrepresentative nature of the sample. Indeed, since the sample was self-selected at only a few Internet gambling portals, it is not possible to gauge the extent to which the sample reflects the broader population of Internet gamblers. It is at very least biased toward English-speaking North Americans. Thus, while we feel the study has merit, insofar as it offers some insight into the preferences of Internet gamblers, our results concerning Internet gamblers' demographic and game-play characteristics cannot be generalized to the broader population. Moreover, our typology of the reasons people prefer Internet gambling over land-based gambling is not necessarily exhaustive, insofar as it may be omitting reasons that could have been offered by groups of people who did not select themselves into the sample.

Another limitation is that we did not define "Internet gambling" for our participants, assuming instead that they would understand its meaning. The portals where participants were recruited included links to typical forms of Internet gambling, including casinos, bingos, and sports books. However, most gambling sites offer free demo sessions, during which people can play games without betting real money. It is possible that some of the people who selected themselves into our sample only play the demo or practice versions of games, and so in actuality are not Internet gamblers. It is difficult to know how many, if any, of these false positives are present in our sample, although we would speculate that the proportion is relatively small. In any case, we note that it is wise to clearly define Internet gambling for participants in order to sample only those who actually wager money in the course of their gaming activity.

The final noteworthy limitation is related to the pitfalls we encountered with online survey methodology, and the attendant implications for the depth of analysis we were able to achieve. The survey used for the present study collected both quantitative data (gathered via fixed-choice items) and qualitative data (gathered using text fields where respondents could type a response or a number of responses). Unfortunately, due to

problems and oversights in the programming of the questionnaire, it was not possible to analyze the qualitative responses to the open-ended question about Internet gambling preference in relation to the quantitative demographic and game-play characteristics gathered using the fixed-choice survey items. Thus, we can offer a demographic and game-play profile using the quantitative data, and we can also offer a preference typology using the qualitative data. However, we cannot integrate the two data sets in order to compare the qualitative reasons for preferring Internet gambling offered by one group of people (e.g., men) to the reasons offered by another (e.g., women). We were therefore unable to use our typology in any sort of statistical analysis, which could have given us a more nuanced understanding of how and why reasons for preferring Internet gambling varied among different categories of people.

References

Abbott, M.W., & Volberg, R.A. (1999). *Gambling and problem gambling in the community: An international overview and critique*. Wellington, New Zealand: Department of Internal Affairs.

American Gaming Association. (2006a). *Industry information fact sheets: Internet gambling*. Washington, DC: Author. Available at http://www.americangaming.org/Industry/factsheets/issues_detail.cfv?id=17

American Gaming Association. (2006b). Gambling and the Internet. In 2006 AGA Survey of Casino Entertainment (pp. 21–27). Washington, DC: Author. Available at http://www.americangaming.org/assets/files/2006 Survey for Web.pdf

Amey, B. (2001). *People's participation in and attitudes to gaming, 1985–2000*. Wellington, New Zealand: Department of Internal Affairs.

Auriemma, T.N., & Lahey, W. (1999, September). *Gambling on the Internet: Report to the International Association of Gaming Regulators (IAGR)*. Paper presented at the 1999 IAGR Conference, Paradise Island, The Bahamas. Retrieved February 1, 2005, from http://www.iagr.org/iagrwebgpaper.PDF [This link is no longer available. –ed.]

Azmier, J.J. (2000). Canadian gambling behaviour and attitudes: Summary report. Calgary, AB: Canada West Foundation.

Basham, P., & White, K. (2002). Gambling with our future? The costs and benefits of legalized gambling. Vancouver, BC: Fraser Institute.

Brown, D., Patton, D., Dhaliwal, J., Pankratz, C., & Broszeit, B. (2002, February). *Gambling involvement and problem gambling in Manitoba*. Winnipeg, MB: Addictions Foundation of Manitoba.

Canadian Partnership for Responsible Gambling. (2004). *Canadian gambling digest*. Retrieved September 22, 2005, from

http://www.cprg.ca/articles/canadian_gambling_digest_2004.pdf

Casino City. (2006). Online Casino City. http://online.casinocity.com/

Derevensky, J.L., Gupta, R., & McBride, J. (2006, August–September). *Internet gambling among youth: A cause for concern*. Paper presented at the Global Remote and E-Gambling Research Institute Conference, Amsterdam, Netherlands.

Ferris, J., & Wynne, H. (2001, February). *The Canadian Problem Gambling Index: Final Report*. Ottawa, ON: Canadian Centre on Substance Abuse. Available at http://www.ccsa.ca/NR/rdonlyres/58BD1AA0-047A-41EC-906E-87F8FF46C91B/0/ccsa0088052001.pdf

Griffiths, M. (1999). Gambling technologies: Prospects for problem gambling. *Journal of Gambling Studies*, 15, 265–283.

Griffiths, M. (2001). Internet gambling: Preliminary results of the first U.K. prevalence study. *Electronic Journal of Gambling Issues: eGambling, 5*. Available at http://www.camh.net/egambling/issue5/research/griffiths_article.html

Griffiths, M. (2003). Internet gambling: Issues, concerns, and recommendations. *CyberPsychology & Behavior*, *6*, 557–568.

Griffiths, M. (2006, August–September). *Internet gambling: What can the past tell us about the future?* Paper presented at the Global Remote and E-Gambling Research Institute Conference, Amsterdam, Netherlands.

Griffiths, M. D., & Parke, J. (2002). The social impact of Internet gambling. *Social Science Computer Review*, 20, 312–320.

Griffiths, M., & Wood, R. T. A. (2000). Risk factors in adolescence: The case of gambling, videogame playing, and the Internet. *Journal of Gambling Studies*, 16, 199–225.

Griffiths, M., Wood, R.T. A., & Parke, J. (2006, May). *A psychosocial investigation of student online poker players*. Paper presented at the 13th International Conference on Gambling, Lake Tahoe, NV. Available at http://www.unr.edu/gaming/13th_Conference_Web_files/Files/Abstracts/index.htm

Hammer, R. D. (2001). Does Internet gambling strengthen the U.S. economy? Don't bet on it. *Federal Communications Law Journal*, 54 (1), 103–128.

Howard, P.E.N., Rainie, L., & Jones, S. (2001). Days and nights on the Internet: The impact of a diffusing technology. *American Behavioral Scientist*, 45, 383–404.

Kelly, R., Todosichuk, P., & Azmier, J. (2001). *Gambling at home: Internet gambling in Canada*. Calgary, AB: Canada West Foundation.

Ladd, G.T. & Petry, N.M. (2002). Disordered gambling among university-based medical and dental patients: A focus on Internet gambling. *Psychology of Addictive Behaviors*, *16*, 76-79.

LaRose, R., Mastro, D., & Eastin, M. S. (2001). Understanding Internet usage: A social-cognitive approach to uses and gratifications. *Social Science Computer Review*, 19, 395–413.

Luntz, Maslansky Strategic Research. (2006). *Online Gambling Survey results: Feb. 28–Mar. 5, 2006.* Washington, DC: American Gaming Association.

McMillen, J., & Woolley, R. (2003, February). *Australian online gambling policy: A lost opportunity?* Paper presented at Pacific Conference on I-Gaming, Alice Springs, Australia.

Petry, N.M., & Mallya, S. (2004). Gambling participation and problems among employees at a university health center, *Journal of Gambling Studies*, 20, 155–170.

Rasmussen Reports. (2006, October). *A Virtual roll of the dice. Survey of 1,000 adults Sept 16–17, 2006*. Available at http://www.rasmussenreports.com/public content/lifestyle/a virtual roll of the dice

RSe Consulting. (2006, October). *A literature review and survey of statistical sources on remote gambling. Final report*. London, U.K.: Author. Available at http://www.culture.gov.uk/NR/rdonlyres/E0A395C1-35CC-4717-BF00-B1F6BD3A6B76/0/RemoteGambling RSeReport.pdf

Smith, G., & Wynne, H. (2002). *Measuring problem gambling in Alberta using the Canadian Problem Gambling Index*. Edmonton, AB: Alberta Gaming Research Institute.

Turner, N. (2002). Internet gambling. *Electronic Journal of Gambling Issues: eGambling:* 6. Available at http://www.camh.net/egambling/issue6/first_person/index.html

The Wager (1999, May). Online casinos: A closer look. *The Wager*, 4 (20). Available at http://www.basisonline.org/backissues/1999/vol4pdf/w420.pdf

Wasserman, I.M., & Richmond-Abbott, M. (2005). Gender and the Internet: Causes of variation in access, level, and scope of use. *Social Science Quarterly*, 86 (1), 252–270.

Watson, S., Liddell Jr., P., Moore, R. S., & Eshee Jr., W. D. (2004). The legalization of Internet gambling: A consumer protection perspective. *Journal of Public Policy and Marketing*, 23 (2), 209–213.

Welte, J.W., Barnes, G.M., Wieczorek, W.F., Tidwell, M., & Parker, J. (2002). Gambling participation in the U.S.—Results from a national survey, *Journal of Gambling Studies*, 18, 313–337.

Wood, R.T., & Williams, R.J. (2006). *Internet gambling: Prevalence, demographics, and behavior*. [Study in progress, funded by the Ontario Problem Gambling Research Centre.]

Wood, R.T. & Williams, R.J. (2007a). Internet gambling: Patterns, characteristics, and emerging issues. In G. Smith, D. Hodgins, & R. Williams (Eds.), *Research and measurement issues in gambling studies* (pp.486-502). Toronto: Elsevier Publishing.

Wood, R.T., & Williams, R.J. (2007 b). Problem gambling on the Internet: Implications for Internet gambling policy in North America. *New Media & Society*, 9 (3), 520-542.

Woolley, R. (2003). Mapping Internet gambling: Emerging modes of online participation in wagering and sports betting. *International Gambling Studies*, 3 (1), 3–21.

Manuscript history: submitted June 19, 2006; accepted April 26, 2007. This paper was peer-reviewed. All URLs were available when the paper was submitted.

For correspondence: Robert T. Wood, PhD, Associate Professor, Department of Sociology, University of Lethbridge, 4401 University Drive, Lethbridge, AB, T1K 3M4, Canada. Phone: 403-329-5137, fax: 403-329-2085, e-mail: robert.wood@uleth.ca

Contributors: RTW was the principal author of the research design, participated in the data analysis, and took a lead role in writing and revising the manuscript. RJW advised on the research design and had a supporting role in writing and revising this manuscript. PKL provided research assistance and led the content analysis on which this article is based.

Competing interests: Robert T. Wood and Paul K. Lawton: None declared. Robert J. Williams is a node coordinator for the Alberta Gaming Research Institute, which provided funding for this project.

Ethics approval: The University of Lethbridge Human Subjects Research Committee provided written approval for a broader project, of which this is a part, in 2003. The reviewed project was entitled "Using online survey techniques to profile the Internet gambler: A pilot study."

Funding: Robert T. Wood, Robert J. Williams, and Paul K. Lawton were all employed at the University of Lethbridge when this study was conducted. Data collection was funded by a grant from the Alberta Gaming Research Institute.

Robert T. Wood, PhD, is an associate professor in the Department of Sociology at the University of Lethbridge. His research interests focus mainly on the sociocultural aspects of problem gambling.

Robert J. Williams, PhD, CPsych, is a professor in the School of Health Sciences at the University of Lethbridge. He is also the Lethbridge node coordinator for the Alberta Gaming Research Institute. Dr. Williams's research program spans all aspects of gambling and problem gambling.

Paul K. Lawton, MA, is currently working on a PhD in the Department of Sociology at the University of Calgary. Mr. Lawton's research interests focus mainly on the sociology of cyberspace.

Journal of Gambling Issues: Issue 20, june 2007

¹ Past studies, when examined chronologically, offer a more detailed picture of the expansion of Internet gambling Web sites. In 1995, there were only 24 Internet gambling sites accessible online (Watson et al., 2004). By May 1998, that figure had increased to 190, including 90 online casinos, 39 lotteries, 8 online bingos, and 53 sports books (Basham & White, 2002). Within a single year, those figures had more than doubled, with 250 online casinos, 64 lotteries, 20 bingos, and 139 sports books (Auriemma & Lahey, 1999; Basham & White, 2002). In 2001, it was estimated that hundreds of millions of people had convenient Internet access to upward of 1,400 different online gambling sites (Kelly, Todosichuk, & Azmier, 2001). By 2002, the number of accessible Internet gambling sites was estimated to be approximately 2,000 in total (Watson et al., 2004), confirming experts' earlier predictions of a continued rapid increase in the number of gambling Web sites (Abbot & Volberg, 1999; Hammer, 2001; Turner, 2002). In October, 2006, there were over 2,500 Internet gambling Web sites owned by 465 different companies listed at http://www.online.casinocity.com.

² Studies conducted in 2006 were not available when the present study was being designed. Thus, findings of these studies were not used to construct categories or questions in the survey the present authors used to assess gambling preference.

³ An in-depth presentation of our findings related to problem gambling may be accessed in this alternative publication.

⁴ Following standard procedure in social scientific research, the coefficient of reliability was computed simply by dividing the number of identically coded units by the total number of units.

⁵ Moderate problem gamblers are people who score between 3 and 7 on the CPGI. Severe problem gamblers are people who score 8+ on the CPGI.