

***ONLINE GAMBLING:  
PAST, PRESENT AND FUTURE***

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## OVERVIEW OF PRESENTATION

- Generic and specific factors that facilitate online addictions
- Key empirical findings about online gambling
- The rise of behavioural tracking studies
- Online gambling and RG tools
- The future of online gambling and emerging trends

No I am NOT addicted!!!



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# **GENERIC RISK FACTORS THAT MAY FACILITATE ONLINE ADDICTIONS**

*(Griffiths, 2003)*

- Access
- Affordability
- Anonymity
- Convenience
- Disinhibition
- Escape
- Social acceptability



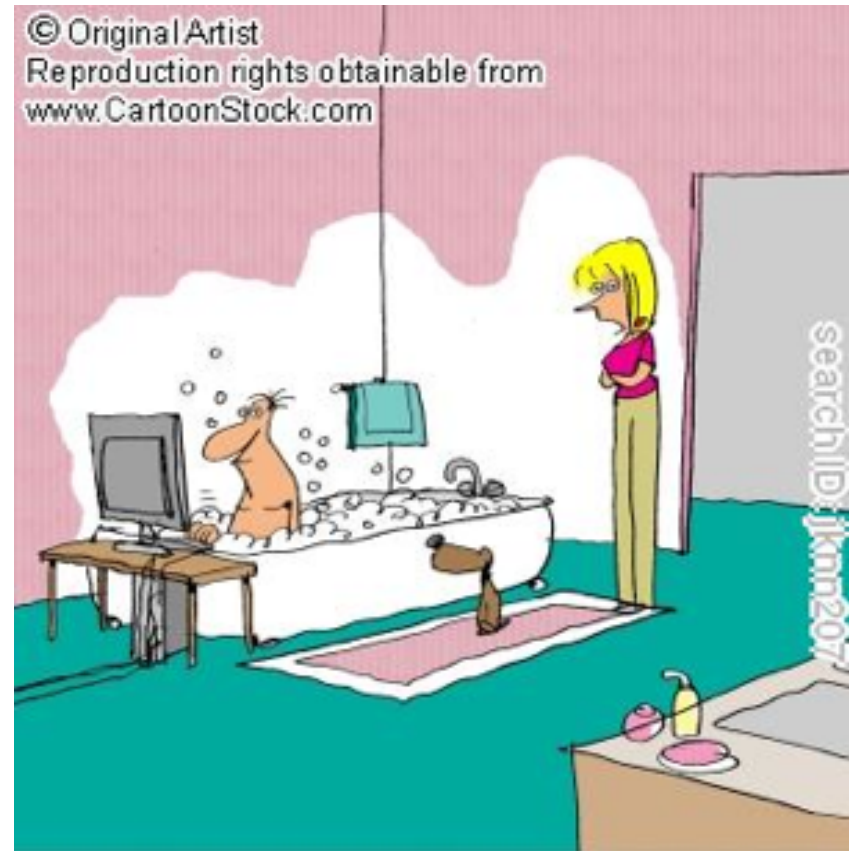
# ***SPECIFIC FACTORS THAT MAKE INTERNET GAMBLING ATTRACTIVE***

(Griffiths, Wood, Parke & Parke, 2006; Kuss & Griffiths, 2012)

- Good financial value (versus offline gambling)
- Convenience (no dress code, no travel, etc.)
- Increased realism (e.g., “real” gambling via webcams, player and dealer avatars)
- Live remote wagering (for both gambling alone and gambling with others)
- Players can learn to play for free (e.g., demo modes)
- Inter-gambler competition
- External legislation (e.g., smoking bans in public places)

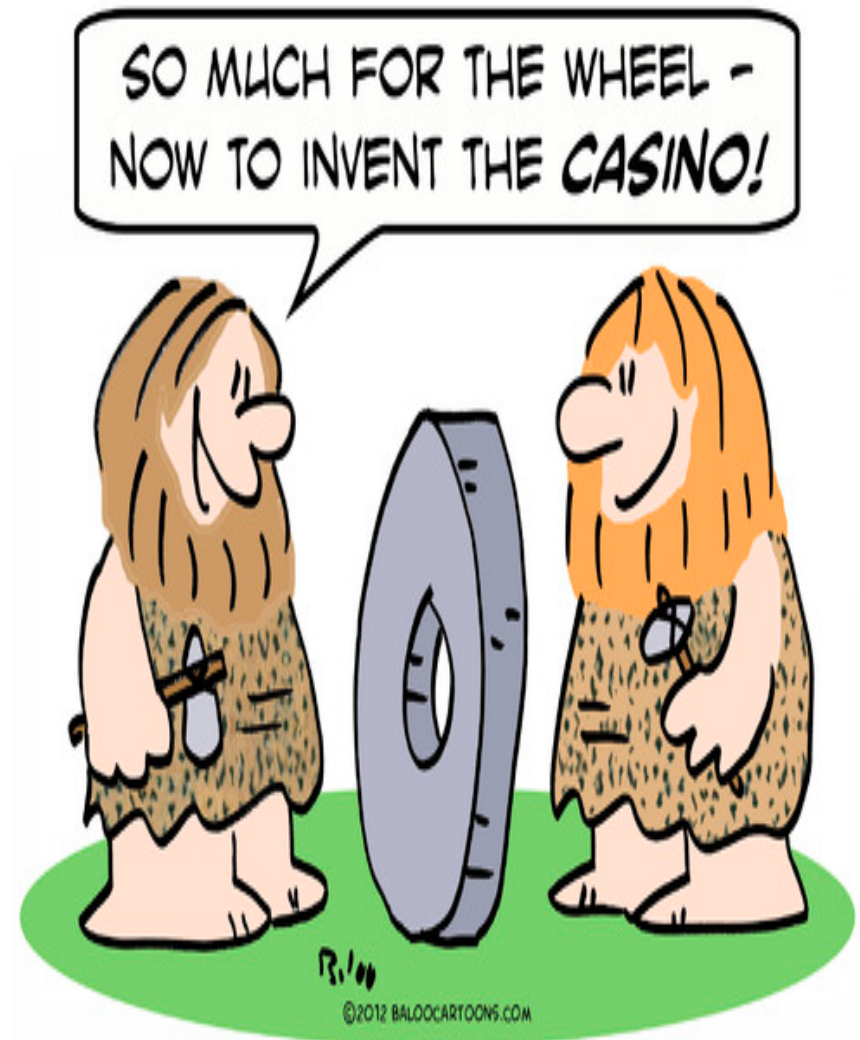
## **ONLINE GAMBLING: KEY EMPIRICAL FINDINGS SUMMARY**

- Online gambling accounts for an estimated 10% of the total global gambling market and is increasing (*Gainsbury, 2015*)
- In jurisdictions that have carried out studies, online gambling prevalence rates still relatively low (8-16%)
- Online gamblers more likely to be male, relatively young adults, single, well educated, and in professional/managerial employment (*Griffiths et al, 2009; Wardle et al, 2011*).



***“Gambling while taking a bath? Have you lost your mind?”***

- Problem gambling prevalence rate is significantly higher among online gamblers than non-online gamblers
- Adolescents are gambling online
- Increasing numbers of women gambling remotely and gender swapping is common
- *(Sources: Griffiths et al, 2009; 2010; Griffiths & Barnes, 2008; Gainsbury 2015; Wood, Griffiths, et al, 2007; Ipsos MORI, 2009; Griffiths & Parke, 2010; Canale, Griffiths et al, 2015; (IGRU, 2007; Griffiths et al, 2007).*



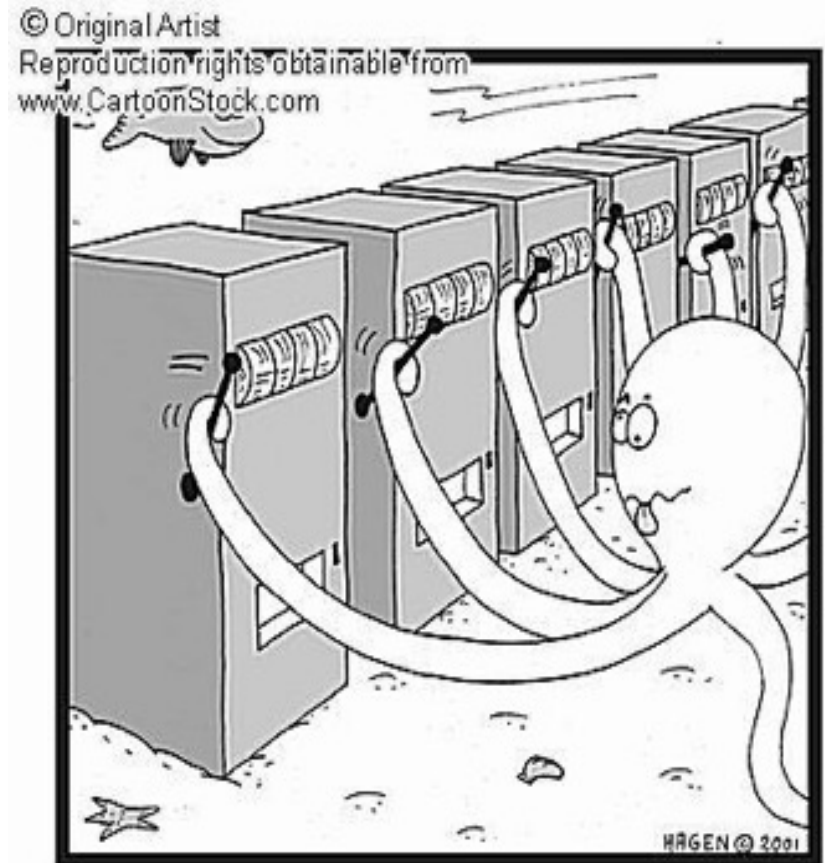
## **BGPS 2010 SECONDARY DATA ANALYSIS**

(Wardle, Moody, Griffiths, Orford & Volberg, 2011)

- One of the aims was to explore whether there were any differences in profile between people who choose to gamble in certain modes and consider, briefly, whether gambling behaviour varied between these groups (n=7756)
- Offline gambling only (80.5%; 0.9%/0.4%)
- Online gambling only (2.1%; 0%)
- Mixed mode gambling - different activities (6.8%; 4.3%/3.4%)
- Mixed mode gambling – same activities (10.6%; 2.4%/0.8%)

# ***INCREASE IN USE OF BEHAVIOURAL TRACKING DATA***

- In 2002, two separate academic papers examined BT:
- Wang & Aquino (2002) highlighted the advantages to the gaming industry in relation to slot machines
- Griffiths & Parke (2002) highlighted the disadvantages to the players in relation to Internet gambling
- Both papers claimed that companies could keep track of what the customer was playing



Compulsive gambling



- Behavioral tracking can clearly be used both positively and negatively.
- However, various companies are using tracking technologies as a way of helping problem gamblers rather than exploiting them (e.g., *Svenska Spel*, *Norsk Tipping*, *RAY*, *888.com*).
- Evaluation is therefore needed on whether these tracking interventions really work.
- Tracking technologies may also have implications for future diagnostic criteria for problem gambling (*Griffiths, 2009; Griffiths & Whitty, 2010; Delfabbro, King & Griffiths, 2012*)



# ***BEHAVIORAL TRACKING STUDIES VERSUS SELF-REPORT STUDIES***

(Griffiths & Auer, 2011; Auer & Griffiths, 2015)

- Behavioral tracking data provides a totally objective record of an individual's gambling behavior on a particular online gambling website
- (Individuals in self-report studies may be prone to social desirability factors, unreliable memory, etc.).
- Typically very large sample sizes
- Behavioral tracking data provide a record of events and can be revisited after the event itself has finished (whereas self-report studies cannot).



- Griffiths and Auer (2011; 2015) note that behavioral tracking data:
- (i) Always come from unrepresentative samples (i.e., the players that use one particular internet gambling site)
  - (ii) Does not tell us anything about a gambler's overall gambling (as gamblers are rarely loyal to one site)
  - (iii) Does not account for the fact that more than one person can use a particular account
  - (iv) "*Tell us nothing*" about why people gamble or develop problems
  - (v) Cannot be used for comparing online and offline gambling as data are only collected on one group of people (i.e., online gamblers),
  - (vi) Are less likely to provide insights into the relationships between gambling and other co-morbid behaviours
  - (vii) Cannot examine problem gambling using current diagnostic criteria.

# ***LIMIT SETTING EMPIRICAL STUDY***

## **(Auer & Griffiths, 2013)**

- Data collected from a representative random sample of 100,000 players who gambled on the *win2day* gambling website
- During a three-month period, all voluntary time and/or money limit setting behaviour by a subsample of online gamblers (n=5000) within this mandatory framework was tracked and recorded for subsequent data analysis.
- From the 5,000 gamblers, the 10% most intense players (as measured by theoretical loss) were further investigated.



**"YOUR EYES APPEAR TO BE A LITTLE IRRITATED. GAMBLING ONLINE FOR 3 MONTHS STRAIGHT WITHOUT SLEEPING MAY BE THE CAUSE."**

- Voluntary spending limits had the highest significant effect on subsequent monetary spending among casino and lottery gamblers.
- Monetary spending among poker players significantly decreased after setting a voluntary time limit.
- The highest significant decrease in playing duration was among poker players after setting a voluntary playing duration limit.



- The results of the study demonstrated that voluntary limit setting had a specific and significant effect on the studied gamblers.
- Therefore, voluntary limits appear to show voluntary limit setting had an appropriate effect in the desired target group (i.e., the most gaming intense players).

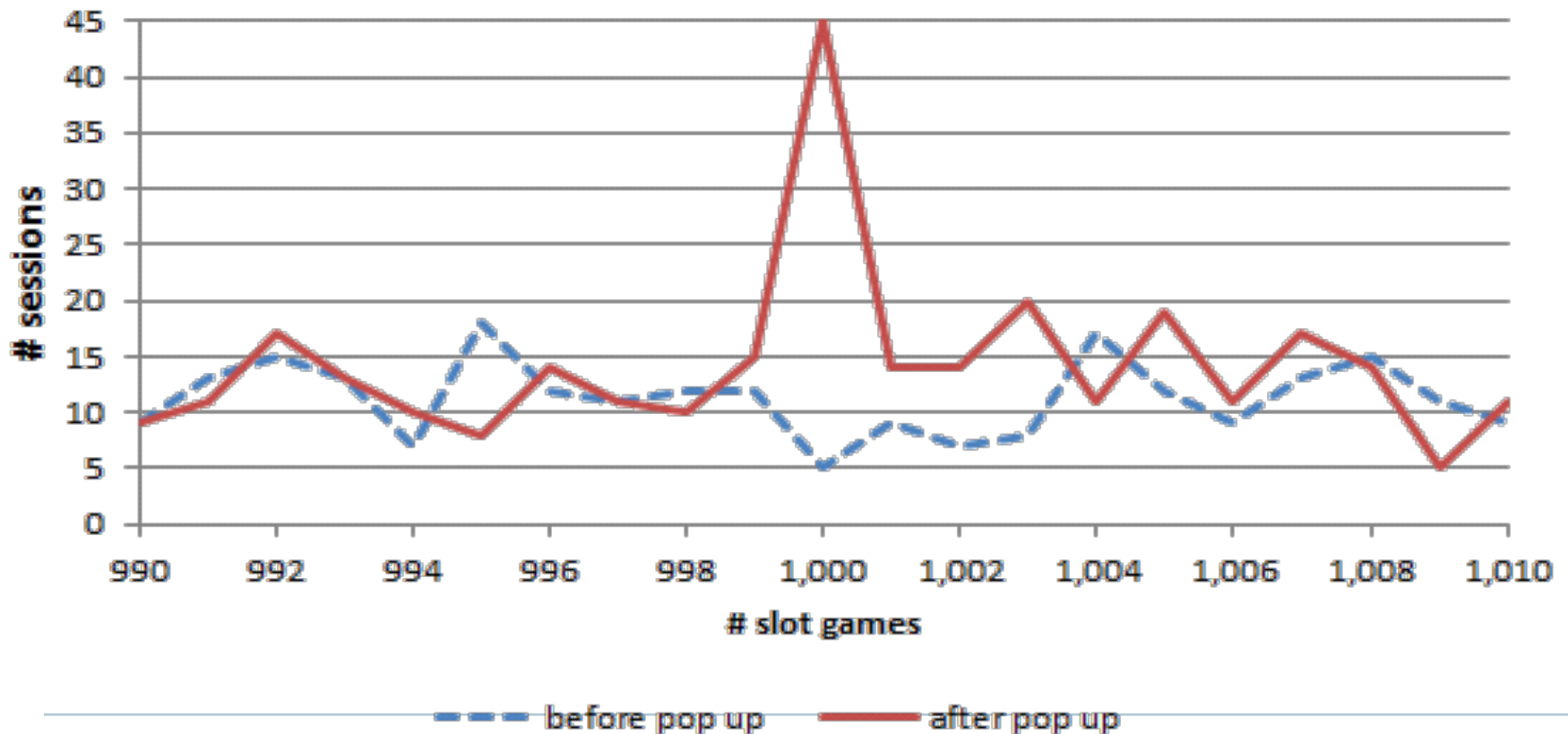


# ***SLOTS POP-UP EMPIRICAL STUDY 1***

**(Auer, Malischnig & Griffiths, 2014)**

- This study investigated the effects of a slot machine pop-up message in a real gambling environment
- Compared the behavioural tracking data of two representative random samples of 400,000 gambling sessions before and after the pop-up message was introduced
- (Comprising around 50,000 gamblers in total)
- The results indicated that demonstrably more gamblers ceased their gambling session following the viewing of a pop-up message after 1000 consecutive gambles on an online slot machine game compared to those who had not viewed a pop-up message.

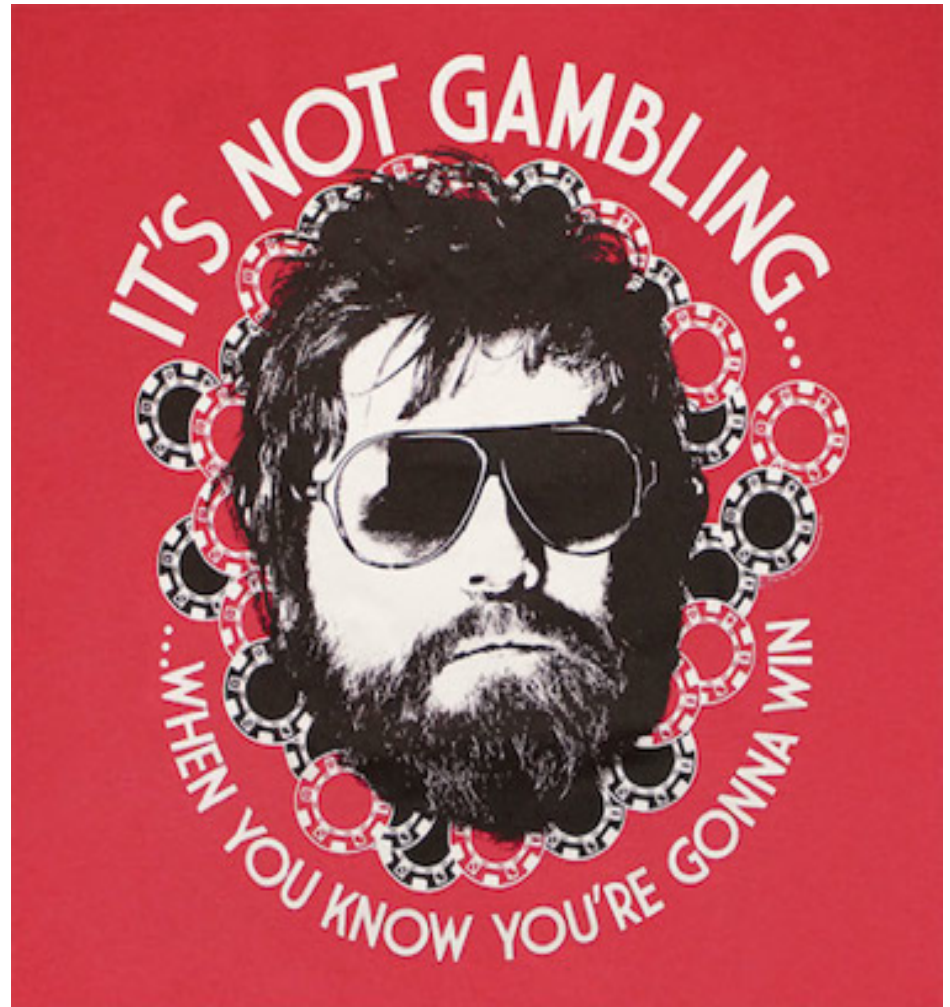
- The data suggest that pop-up messages can influence a small number of gamblers to cease their playing session
- Pop-ups appear to be another potentially helpful social responsibility tool in reducing excessive play within session.





## ***SLOTS POP-UP EMPIRICAL STUDY 2*** **(Auer & Griffiths, 2015)**

- Self-appraisal feedback, normative feedback, and cognitive belief feedback, have never been empirically examined in any real-world online gambling setting.
- A new study investigated the effects of a normative and self-appraisal pop-up message among online slot machine players on a real online gambling site (i.e., *win2day*)



- In September 2013, the content of the *win2day* pop-up message was changed and
- New pop-up addressed self-appraisal, provided normative feedback, and addressed cognitive beliefs commonly found among gamblers.
- The new pop-up message (translated from German, the native language used on the Austrian site) reads:
- *“We would like to inform you, that you have just played 1,000 slot games. Only a few people play more than 1,000 slot games. The chance of winning does not increase with the duration of the session. Taking a break often helps, and you can choose the duration of the break”*
- The reasoning behind the messaging is as follows:

- The reasoning behind the messaging is as follows:
- **"We would like to inform you, that you have just played 1,000 slot games"**: This objectively informs players about the behavior they engaged in.
- **"Only a few people play more than 1,000 slot games"**: This provides normative feedback. Only 1.5% of playing sessions exceeds 1,000 consecutive slot games
- **"The chance of winning does not increase with the duration of the session"**: This addresses a common misbelief among gamblers (i.e., the gamblers' fallacy).
- **"Taking a break often helps, and you can choose the duration of the break"**: This provides advice and leaves the decision up to the player and is in line with the techniques of motivational interviewing (*Millner & Rollnick, 1991*)

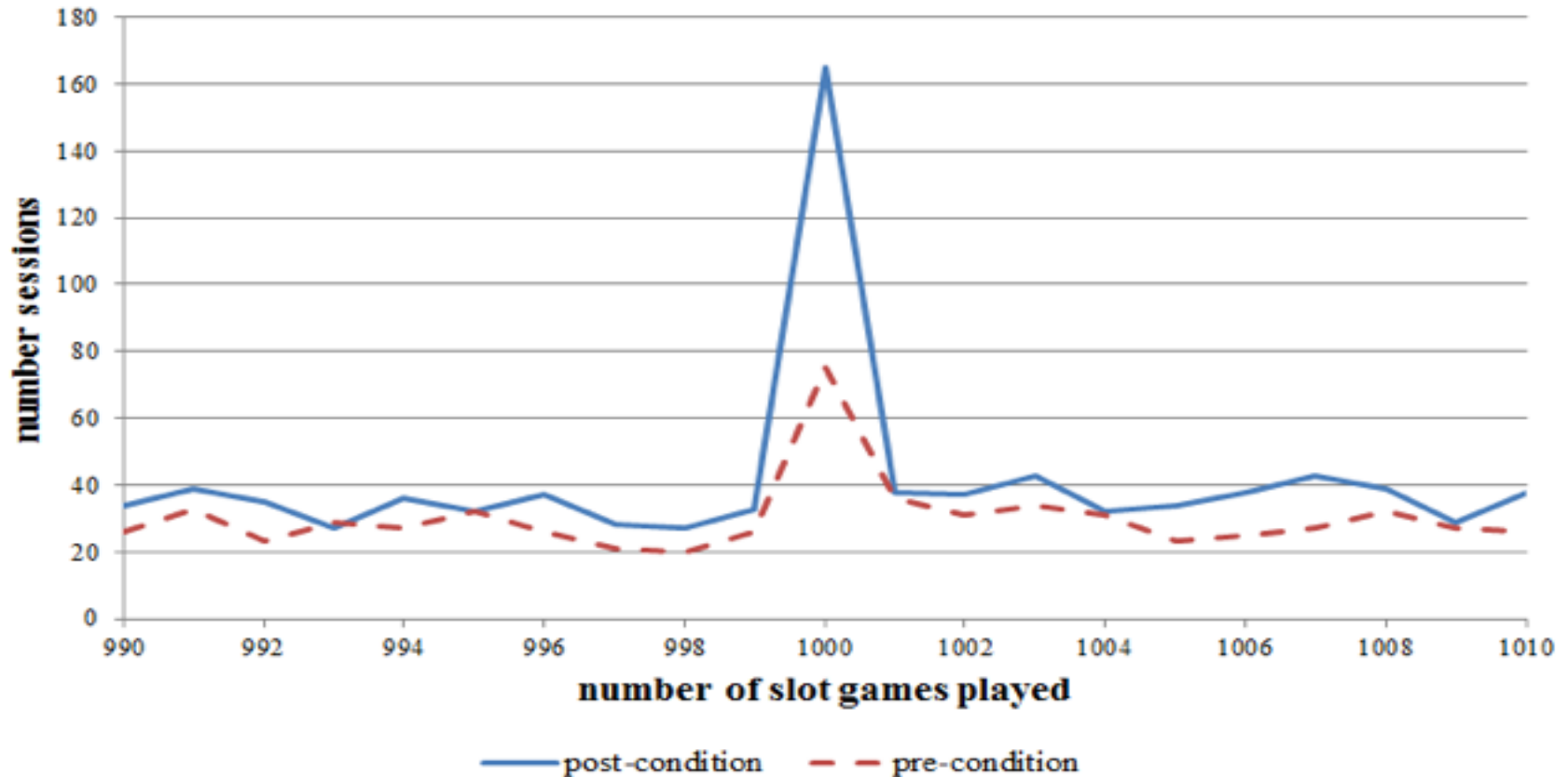
- Accessed two representative random samples of 800,000 sessions before and after the pop-up message was changed.
- The total dataset comprised 1,600,000 game sessions that contained at least one slot game.
- We hypothesized that the changed message content would lead to an increase in gamblers terminating their gambling session after playing 1,000 consecutive slot games compared to the previous message (*i.e.*, Auer et al, 2014).
- .



- Of the 11,232 sessions that lasted at least 1,000 games prior to the pop-up message change, 75 sessions immediately terminated after the simple pop-up message was shown (0.67%).
- After the new pop-up was introduced, 169 sessions immediately terminated when the pop-up message was shown at 1,000 consecutive slot games (1.39%).



Number of sessions ended between 990 and 1,010 slot games comparing simple pop-up message (pre-condition) and enhanced pop-up message (post-condition)



# **ONLINE BEHAVIOURAL TRACKING FOR PG SCREENING CRITERIA: IMPLICATIONS**

- Various members of the online gambling industry have claimed that problem gambling can be identified online.
- If this is true, it has implications for current problem gambling screening instruments.
- A brief analysis of the extent to which each DSM-5 criterion of problem gambling can be identified online shows that only a few behaviours can be identified



# **DSM-5 CRITERIA FOR PATHOLOGICAL GAMBLING**

- Is preoccupied with gambling (e.g. reliving past experiences, planning next venture, thinking of ways to get money)
- Needs to gamble with increasing amounts of money in order to achieve the desired excitement
- Repeated unsuccessful efforts to control, cut back, or stop gambling
- Is restless or irritable when trying to cut down or stop gambling
- Gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g. helplessness, guilt, anxiety, depression)
- After losing money gambling, often returns another day to get even ("chasing" one's losses)
- Lies to family members, therapist, or others to conceal extent of involvement with gambling
- Has jeopardised or lost a significant relationship, job, or educational or career opportunity because of gambling
- Relies on others to provide money to relieve a desperate financial situation caused by gambling



# ***CAN BIG DATA ONLINE TRACKING BE IDENTIFIED USING DSM-5 CRITERIA?***

- Salience/Preoccupation (good possibility)
- Tolerance (possibly)
- Relapse (possibly)
- Withdrawal (unlikely)
- Escape from reality (unlikely)
- Chasing losses (definitely)
- Conceal Involvement (unlikely)
- Ruin a Relationship/Opportunity (unlikely)
- Bail-out (slight possibility)

# ***PROBLEM GAMBLING BEHAVIOUR ONLINE USING BIG DATA***

- Chasing losses
- Total preoccupation with gambling
- Increase of gambling behaviour (time & money) over time
- Playing a variety of stakes
- Playing a variety of games
- Player 'reload' within gambling session
- Frequent payment method changes
- [Verbal aggression in chat rooms]
- [Constant complaints to customer services]
- Most importantly it is *change in usual behaviour*

# **THE FUTURE OF REMOTE GAMBLING**

(Griffiths, 2011; Griffiths, 2015)

- Feminization of remote gambling
- Increase in numbers of digital natives
- Increase in mobile gaming via smart-phones /tablets
- Increase in in-play betting
- Increase in gambling via social networking

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"Grandma would love to hear about your home run, Ryan...right after the flop."

- Increase in technological advertising and marketing of gambling
- Increase in gambling convergence and cross-fertilization of technologies
- Increase in online help and therapy for problem gamblers
- Emergence of new types of problem gambling
- Increased use of behavioral tracking in empirical studies



"I'm going to Internets Anonymous...  
we meet in a Yahoo chatroom!"

# CONCLUSIONS

- Online technology is changing the way:
  - gamblers are playing games
  - gamblers are being tracked
  - gamblers are being protected
  - gamblers are being marketed to
  - gamblers are receiving help
- While behavioral tracking research has many advantages it is not without problems



***THANK YOU FOR LISTENING!***

