



Online gaming and gambling in children and adolescents

Daniel King

School of Psychology

The University of Adelaide

**Presentation to the Victorian Responsible Gambling Foundation Conference
15 August 2018**



[OPINION](#) [MOVIES](#) [ENTERTAINMENT](#)

Ready Player One is a fine movie spoiled by a terrible final line

How are online games changing?

How are gaming and gambling converging?

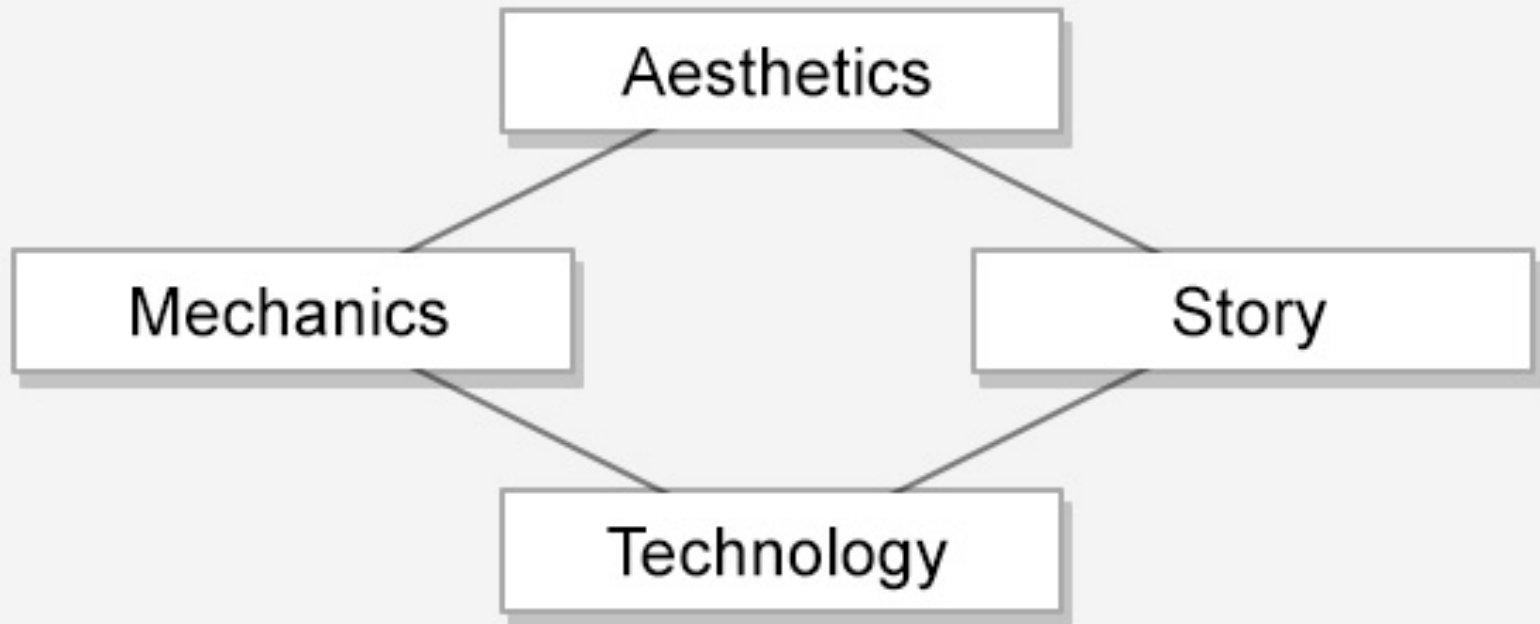
**In what ways are young people exposed to
gambling products?**

Gambling

Gambling means:

- (1) staking or risking something of value
- (2) upon the outcome of a contest of chance or a future contingent event not under the person's control or influence,
- (3) upon an agreement or understanding that the person or someone else will receive something of value in the event of a certain outcome

Fundamental elements of video games



Money has been less essential to the *act of play*

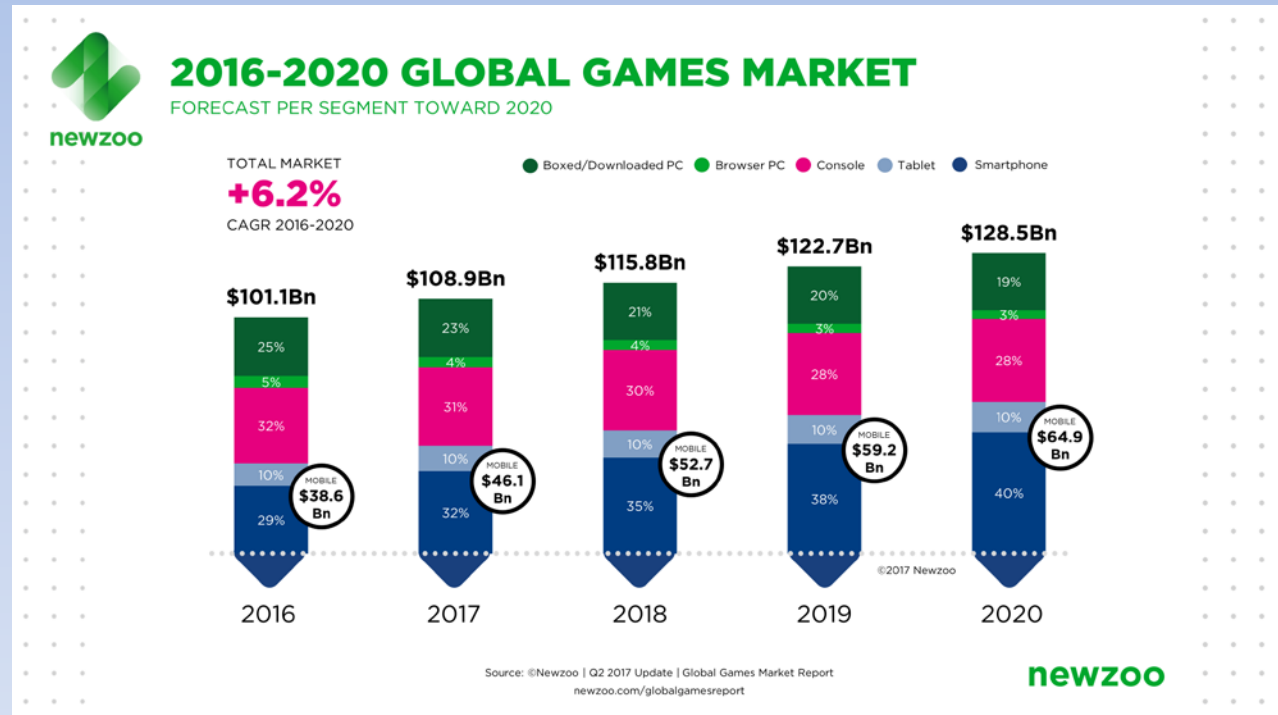
Business models in games

Customer accessibility types

- Free-to-play
- Pay-to-play

Revenue models

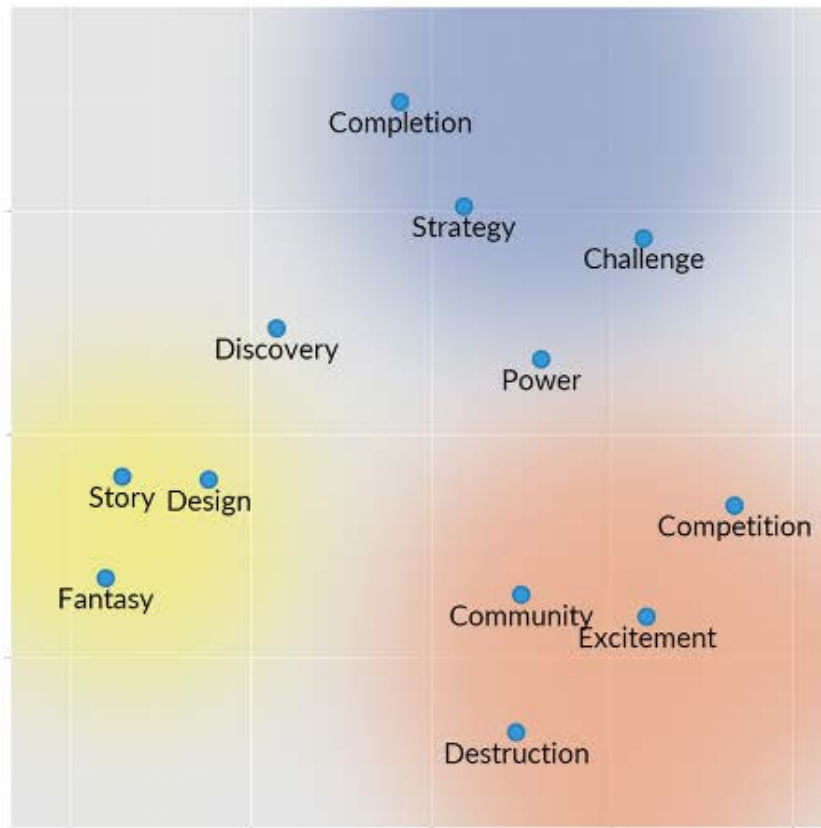
- Coin-operated
- Retail
- Digital distribution
- Advertising or 'IGA'
- Subscriptions
- Micro-transaction
- Player-to-player trading



The global market is growing and smartphone games forecasted to dominate

2015 study of over 140,000 gamers

MAP OF GAMING MOTIVATIONS



The 3 High-Level Clusters

1. Action-Social
2. Mastery-Achievement
3. Immersion-Creativity

Bridges

- Discovery is a bridge between Immersion-Creativity and Mastery-Achievement.
- Power is a bridge between Action-Social and Mastery-Achievement.

At a high-level, 3 clusters of motivations emerged.

- In the bottom-right orange cluster, there's an **Action-Social** cluster that combines the interest in fast-paced gameplay with player interaction.
- In the left yellow cluster, there's an **Immersion-Creativity** cluster that combines the interest in narrative, expression, and world exploration.
- In the top blue clusters, there's a **Mastery-Achievement** cluster that combines the appeal of strategic gameplay, taking on challenges, and becoming powerful.

ATTACHMENT TO DIGITAL VIRTUAL POSSESSIONS IN VIDEOGAMES

Rebecca Watkins and Mike Molesworth

ABSTRACT

Purpose – To extend our understanding of consumers' relationships with their growing collections of digital virtual goods by exploring adult videogamers' attachments to their digital virtual possessions within videogames.

Methodology – Phenomenological interviews with 35 adult videogamers, primarily conducted in participants' homes and lasting on average two hours.

Findings – Our participants were able to possess and form emotional attachments to 'irreplaceable' digital virtual goods within videogames despite the goods' immaterial nature and their own lack of legal ownership. The processes via which these attachments developed mirror our

How are games changing?

- Game structural design is becoming increasingly complex and expensive
- Games are becoming more monetised, socially integrated and immersive due to market forces
- Game profitability influenced by in-app purchasing (IAP)
- Games have portability due to smartphones and other devices

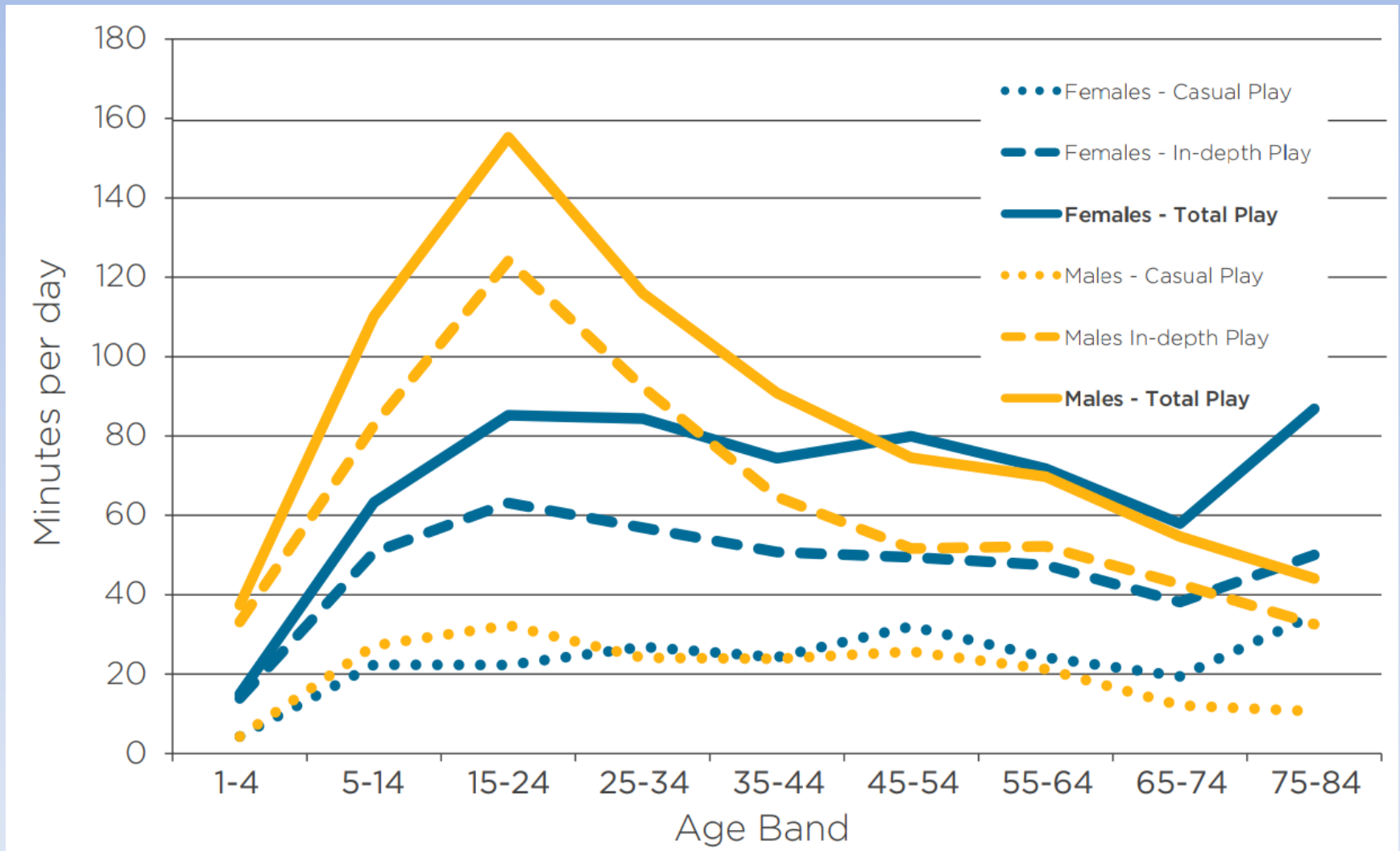




Young people's use of gaming technologies and related devices



Adolescent gaming in Australia (2017)



The neurobiology of gaming self-concept

Behavioral Neuroscience
2015, Vol. 129, No. 1, 8–17

© 2014 American Psychological Association
0735-7044/15/\$12.00 <http://dx.doi.org/10.1037/bne0000025>

Avatar's Neurobiological Traces in the Self-Concept of Massively Multiplayer Online Role-Playing Game (MMORPG) Addicts

Julia Dieter
Heidelberg University

Holger Hill
Karlsruhe Institute of Technology, Karlsruhe, Germany

Madlen Sell, Iris Reinhard, Sabine Vollstädt-Klein, Falk Kiefer, Karl Mann, and Tagrid Leménager
Heidelberg University

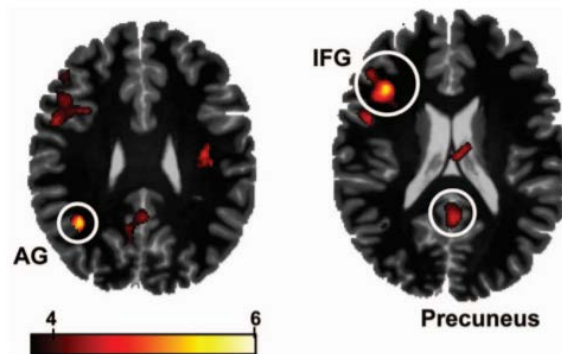


Figure 3. Between-groups comparison for the contrast *avatar > ideal*, showing significantly higher brain activations in addicted MMORPG players during avatar-related reflection relative to ideal in the left AG (left image, $z = 29$), the left IFG (right image) and the precuneus (right image; $z = 20$; among others); brain-extracted χ -square template in MNI space with SPM contrast image-overlay: $p_{\text{uncorr}} < .001$, $T = 3.39$, $\#_{\text{voxel}} \geq 10$. See the online article for the color version of this figure.

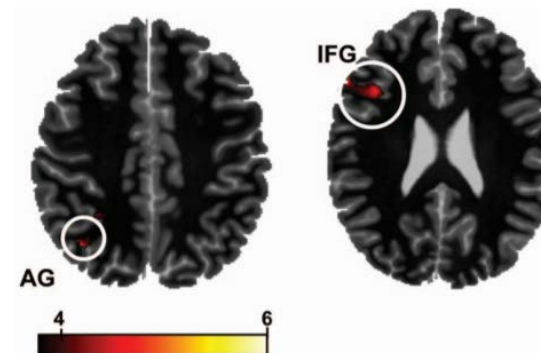



Figure 2. Axial view of brain activations in addicted- relative to nonaddicted MMORPG players for the contrast *avatar > self* in the left IFG (right image, $z = 25$) as well as in the left AG as our ROI (left image, $z = 45$); brain-extracted χ -square template in MNI space with SPM contrast image-overlay: $p_{\text{uncorr}} < .001$, $T = 3.39$, $\#_{\text{voxel}} \geq 10$. See the online article for the color version of this figure.


‘Loot boxes’




Pay real money for cosmetic items



Overwatch™ - 24 Halloween Loot Boxes

 Overwatch™ - 24 Halloween Loot Boxes is currently not available.

x24



Description

Celebrate Halloween with some frightening treats for your heroes during a new event: Overwatch Halloween Terror!

Trick out your collection by picking up Halloween Loot Boxes, available for a limited time*. Every Loot Box contains up to four cosmetic items, including at least one Halloween skin, spray, highlight intro, emote, victory pose, player...

Pay real money for in-game advantages

LOOTBOXEN IN STAR WARS BATTLEFRONT 2



Someone Spent \$15,000 On Mass Effect Multiplayer Cards

"You need to understand the amount of money that's at play with microtransactions," says former BioWare developer Manveer Heir.

2 LOOTBOXEN

11 LOOTBOXEN

24 LOOTBOXEN

50 LOOTBOXEN

PAY TO WIN ???

EPIC WARS

ZÄHLUNGSMETHODEN


Rewards for watching others buy loot crates



Darth Vader takes 40 hours to unlock in Battlefront II and fans are not happy

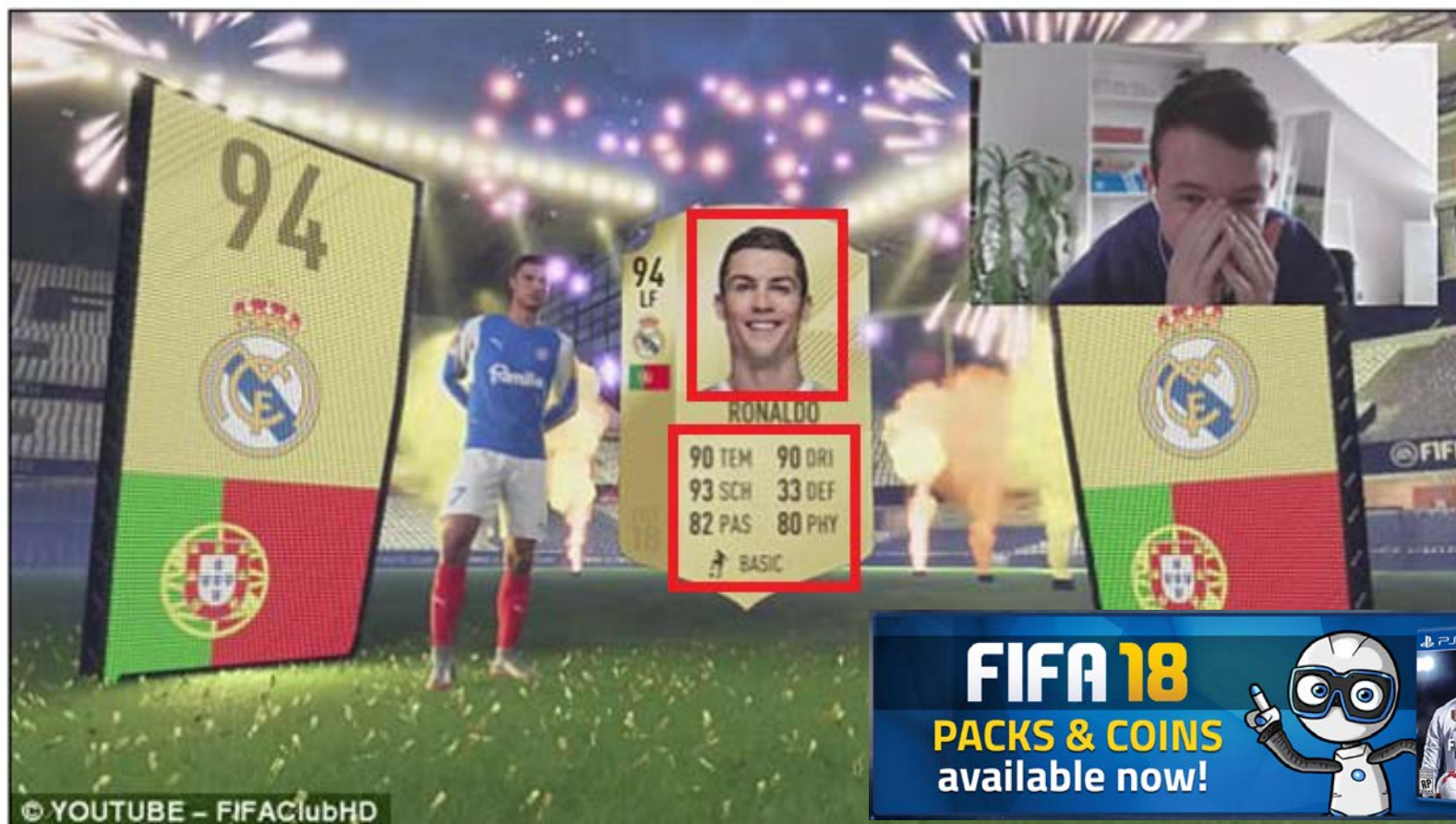


BUY NEW
\$99.95

		
STAR WARS™ Battlefront™ II: 2100 Crystals	STAR WARS™ Battlefront™ II: 4400 Crystals	STAR WARS™ Battlefront™ II: 12000 Crystals
 \$19.99 \$17.99	 \$39.99 \$35.99	 \$99.99 \$89.99

Darth Vader = 60,000 'crystals'
or > \$250

FIFA 18 Ultimate Team player left in tears after packing Cristiano Ronaldo



Cristiano Ronaldo sells for the staggering amount of around 1.8million coins on Ultimate Team

Video game loot boxes are psychologically akin to gambling

Video games are increasingly exposing young players to randomized in-game reward mechanisms, purchasable for real money — so-called loot boxes. Do loot boxes constitute a form of gambling?

Aaron Drummond and James D. Sauer

Playing video games is a common pastime in industrialized nations, with 65% of US homes including at least one gamer¹. To increase the longevity and profitability of their products, video game developers are, with increasing frequency, incorporating purchasable randomized rewards — commonly referred to as ‘loot boxes’ — in their games². Consumers and, more recently, policymakers are becoming increasingly concerned that these randomized reward mechanisms may constitute a form of unregulated gambling targeting minors^{3,4}. Here, we examine the structural and psychological features of loot boxes to evaluate similarities to gambling. Whether (and which) loot boxes may be deemed illegal is a matter determined by the laws of individual countries.

‘Loot box’ is a catch-all term for a digital container of randomized rewards. Essentially, a loot box contains one or more random rewards that alter the game in some



Credit: Image courtesy of Aaron Drummond

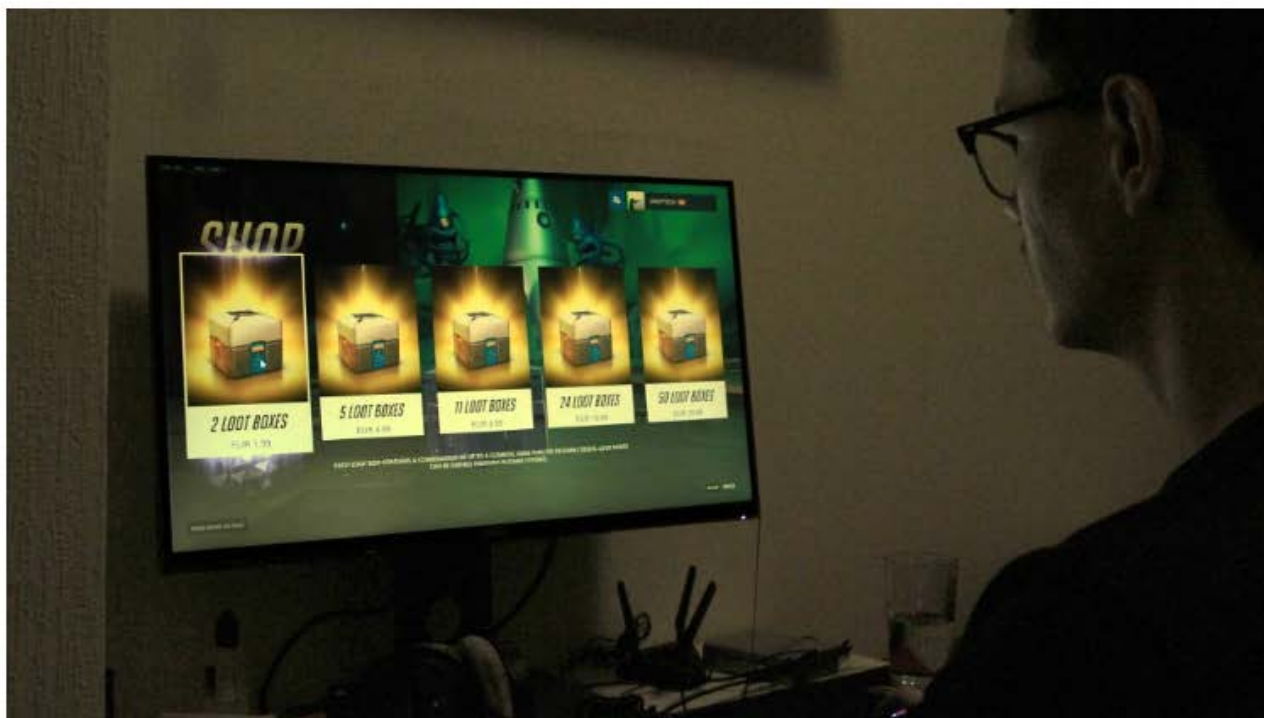
Table 1 | Gambling features in the 22 video games containing loot boxes in 2016–2017

Game	ESRB rating	Exchange of money	Unknown future event	Chance involved	Avoid losses if opt out	Competitive advantage	Can cash out
<i>Assassins Creed Origins</i>	17+	✓	✓	✓	✓	✓ ^a	X
<i>Battlefield 1</i>	17+	✓	✓	✓	✓	X	X
<i>Call of Duty: Infinite Warfare</i>	17+	✓	✓	✓	✓	✓	X
<i>Call of Duty: WWII</i>	17+	✓	✓	✓	✓	X	X
<i>Destiny 2</i>	13+	✓	✓	✓	✓	X	X
<i>FIFA 17</i>	E	✓	✓	✓	✓	✓	✓
<i>FIFA 18</i>	E	✓	✓	✓	✓	✓	✓
<i>For Honor</i>	17+	✓	✓	✓	✓	✓	X
<i>Forza Motorsport 7</i>	E	X ^b	✓	✓	✓	✓	X
<i>Gears of War 4</i>	17+	✓	✓	✓	✓	X	X
<i>Halo Wars 2</i>	13+	✓	✓	✓	✓	✓	X
<i>Injustice 2</i>	13+	X	✓	✓	✓	✓	X
<i>Lawbreakers</i>	17+	✓	✓	✓	✓	X	X
<i>Madden NFL 17</i>	E	✓	✓	✓	✓	✓	✓
<i>Madden NFL 18</i>	E	✓	✓	✓	✓	✓	✓
<i>Mass Effect Andromeda</i>	17+	✓	✓	✓	✓	✓ ^a	X
<i>Middle Earth: Shadow of War</i>	17+	X ^c	✓	✓	✓	✓ ^a	X
<i>NBA 2K18</i>	10+	✓	X	X	✓	X	X
<i>Need for Speed Payback</i>	13+	✓	✓	✓	✓	✓	X
<i>Overwatch</i>	13+	✓	✓	✓	✓	X	X
<i>PlayerUnknown's Battlegrounds</i>	13+	✓	✓	✓	✓	X	✓
<i>Star Wars Battlefront II</i>	13+	X ^c	✓	✓	✓	✓	X

E, everyone. ^aThese games are single player or cooperative, but loot boxes can provide competitive advantage against the game and make players more powerful than friends or team mates. ^bTurn 10 Studios (the publisher of *Forza Motorsport 7*) have announced they will be adding the ability to purchase loot boxes with money soon. ^cOriginally included, but shut down at time of writing due to consumer backlash.

Forsker skal spille dataspill for 50.000 kroner

Såkalte «loot-bokser» regnes ikke som pengespill i Norge. Nå skal en forsker ved UiB bidra til å finne ut om regelverket må endres.



Ingrid Aarekol

Journalist

Publisert 26. apr. kl. 16:51

Oppdatert 26. apr. kl. 17:13

LOOT-BOKS: Mekanismene som skjer når man åpner en eske, minner om det som skjer på en spillautomat, mener forsker. Her vurderer en spiller ulike forandringsbokser i spillet Overwatch.

FOTO: MARKUS VANGEN / NRK



FIFA

Posts



Posted by u/TapeTen 19 days ago 3

2.6k



FUT FUT pack opening research project: €3800 later

Fellow redditors!

Some of you may remember a post doing the rounds on here a while back, about a researcher opening packs for science. That's me! So, I've now opened €3800 worth of packs and have published my findings and views on the whole thing at GREF 2018, a conference for the European gambling regulators.

I thought it was a good idea to share the raw data with everyone here, so that anyone who wants can have a look at them and see for themselves how it all panned out.

Here's the gist of it:

Starting in February, ending (for now) in may, I've spent 453650 Fifa points (worth approx €3800 when purchasing bundles of 12000 points only).

I've opened 651 packs and catalogued every single item, and checked the value of all items againsts futbin.com at the time of opening.

In total, I pulled 9961 items, of which 6992 were player cards, and 4483 were rare gold cards

70 "in-form" cards (TOTW / TOTS / Hero etc) were pulled - mostly ones of little value, with a couple of notable exceptions.

0 icon cards were pulled.

That's right, 0 icon cards were pulled.

The "top 9" rare gold cards, rated 91-94 (Cristiano Ronaldo), were pulled exactly 0 times. That's right! 0 times.

By comparing the distribution of pulled rare gold cards in terms of their rating, it was evident that cards are not drawn "randomly" from the category "rare gold cards", but are skewed towards less valuable ones. About 10% of rare gold cards in FUT are rated 85-89, and about 1% of rare gold cards are rated 90 or more, but only 1.6% and 0.02% of packed players were from these rating brackets, respectively.

Observations

1. Companies are **testing the boundaries** of what is acceptable monetisation in games
2. Companies want players to **equate monetisation with positive emotions** in games
3. Online games can be unstable and adjustable 'products', becoming more like a '**service**'
4. 'Loot boxes' are **not always easy to classify**

Why don't 'loot boxes' meet the definition of gambling?

- (1) staking or risking something of value
- (2) upon the outcome of a contest of chance or a future contingent event not under the person's control or influence,
- (3) upon an agreement or understanding that the person or someone else will receive something of value in the event of a certain outcome

“Predatory” monetisation

In-game purchasing systems that **disguise the true long-term cost** of the activity until players are financially and psychologically committed.

Such schemes are designed to **encourage repeated player spending using tactics** or elements that may involve, either singularly or in combination:

- limited or misleading disclosure of the product;
- misleading randomness of outcomes
- intrusive and unavoidable solicitations;
- systems that manipulate reward outcomes to reinforce purchasing behaviors over skilful or strategic play.

Such strategies may exploit **inequalities in information** between purchaser and provider such as when the industry uses knowledge of the player’s game-related preferences, available funds, and/or playing and spending habits, to **present offers predetermined to maximize the likelihood of eliciting player spending**.

**Adolescent exposure to new
online gambling products that
intersect with gaming**

Social casino games (SCGs)



Playtika

- *Slotomania, Caesars Casino, World Series of Poker*



zynga

- *Zynga Poker, Hit it Rich! Slots, Wizard of Oz Slots*



- *Big Fish Casino, Jackpot City, Vegas Party Slots*

Top 100 games on Facebook

Computers in Human Behavior 57 (2016) 48–53



Contents lists available at [ScienceDirect](#)

Computers in Human Behavior

journal homepage: www.elsevier.com/locate/comphumbeh



Full length article

Gambling content in Facebook games: A common phenomenon?

Christian Jacques*, Daniel Fortin-Guichard, Pierre-Yves Bergeron, Catherine Boudreault, David Lévesque, Isabelle Giroux

École de psychologie, Université Laval, 2325, rue des Bibliothèques, Québec, Québec, Canada, G1V 0A6

 CrossMark

ARTICLE INFO

Article history:
Received 12 October 2015
Received in revised form 24 November 2015
Accepted 2 December 2015
Available online 20 December 2015

Keywords:
Gambling content
Gaming
Facebook games
Game developer

ABSTRACT

Some Facebook games are offered by developers who also offer gambling games, possibly indicating that gambling content (GC) could be found in their Facebook games. This study measures the presence of GC in Facebook games and documents their presentation. It verifies whether GC is more present in games offered by developers offering gambling games as well. The 100 most popular Facebook games were played for 10 min and recorded for content analysis purposes. GC was detected and classified into standard gambling simulation, non-standard gambling simulation, and gambling references. The results indicate that 54% of Facebook games present GC. The GC most often used alluded to slot machines (22%). Facebook games which offer GC are not associated with gambling game developers. However, when gambling references are found, they were most often in games offered by gambling developers. GC as a medium for familiarization with gambling is discussed.

© 2015 Elsevier Ltd. All rights reserved.

54% of games on Facebook have **gambling elements** and these games tend to be owned by gambling operators

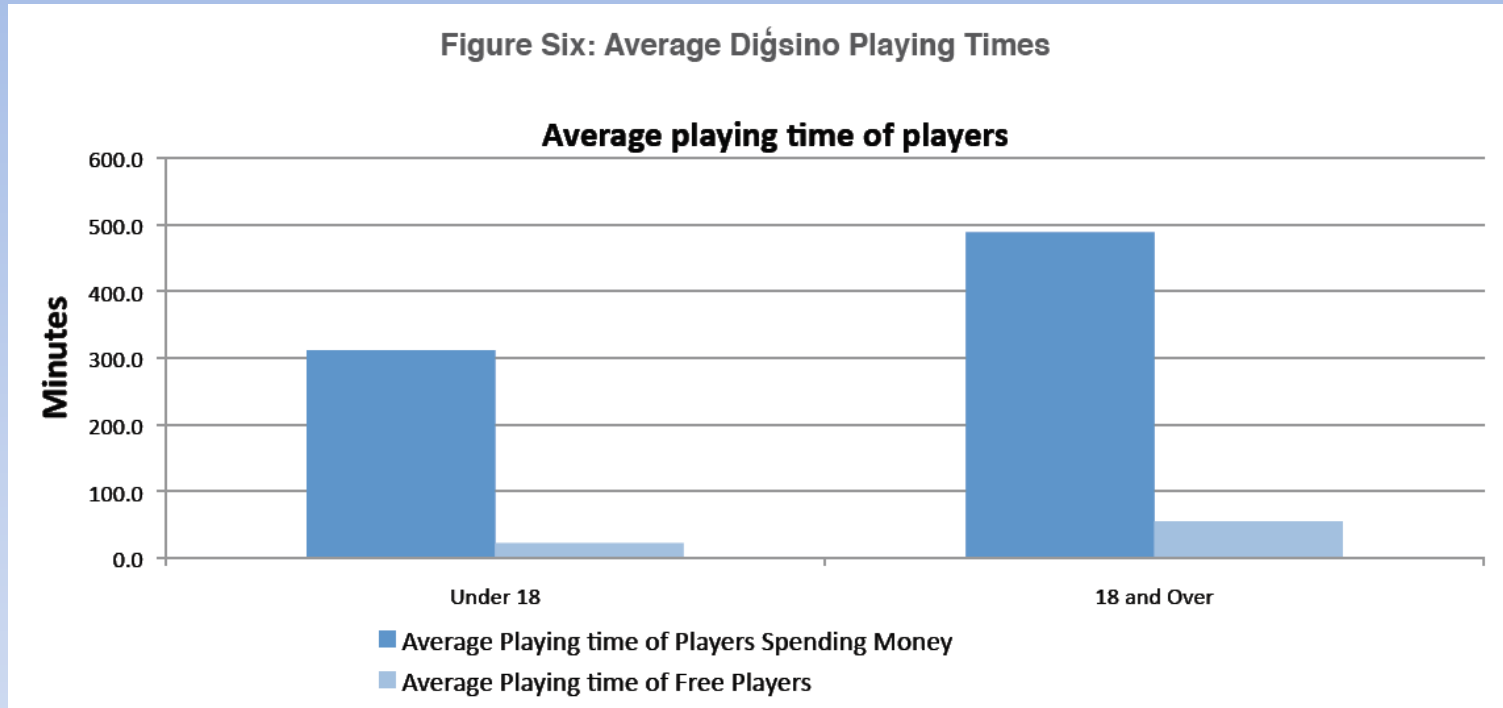
2015 Industry study of 12 million players

Indeed, there were only 505 paying players under the age of 18. Thus, only 0.004% of the total Digísino player numbers were paying players under the ages of 18 years. The 505 paying players under 18 represent 0.56% of the total number of youth Digísino players. In policy and practical terms, the pay to play youth segment is insignificant.

	PAY TO PLAY	FREE PLAY	TOTAL PLAY
<18 years	505	90,150	90,665
18+ years	327,810	11,849,650	12,177,460

Digísino expenditure would be about 30% of an average teen's income. While 30% is a sizeable percentage of income, it is Harvest Strategy's opinion that because many youth have low overheads as most of their domestic needs are met, this percentage of expenditure would seem affordable¹⁰.

Under 18s who spend \$\$\$ play about 10min per day



In context, adults paying to play spent approximately 1.09% of the overall minutes available in May 2014 paying to play, and youth aged less than 18 years spent approximately 0.7% of the overall minutes available in May paying to play. The number of minutes spent playing Dig'sino games does not appear high relative to the available time.

43,200 min in 1 month

300 min / 43,200 = 0.7%

Study: Young people who spend money on SCGs

- Sample of 155 adolescents (Qualtrics)
 - 130 SCG players, 78 non-paying, 52 paying
- Those who spent money on SCGs:
 - Played more often
 - Higher psychological distress
 - Higher PGSI scores
 - Playing for escape and stress relief

FULL-LENGTH REPORT

Journal of Behavioral Addictions
DOI: 10.1556/2006.5.2016.067

The cost of virtual wins: An examination of gambling-related risks in youth who spend money on social casino games

DANIEL L. KING^{1*}, ALEX RUSSELL², SALLY GAINSBURY², PAUL H. DELFABBRO¹ and NERILEE HING³

¹School of Psychology, The University of Adelaide, Adelaide, Australia

²Centre for Gambling Education and Research, Southern Cross University, Lismore, Australia

³School of Human, Health and Social Sciences, Central Queensland University, Bundaberg, QLD, Australia

(Received: August 9, 2016; revised manuscript received: September 2, 2016; accepted: September 3, 2016)

Do people migrate from SCGs to gambling?



ELSEVIER

Contents lists available at [ScienceDirect](#)

Computers in Human Behavior

journal homepage: www.elsevier.com/locate/comphumbeh



Full length article

Migration from social casino games to gambling: Motivations and characteristics of gamers who gamble



Sally M. Gainsbury ^{a, *}, Alex M.T. Russell ^a, Daniel L. King ^b, Paul Delfabbro ^b, Nerilee Hing ^c

- A survey of 521 adults who play SCGs
- **Almost 20%** gambled with money as a result of SCG use
- **Almost 10%** reported SCG use had increased their gambling
- Main motivation was desire to win money

ORIGINAL PAPER







Do Social Casino Gamers Migrate to Online Gambling? An Assessment of Migration Rate and Potential Predictors

**Hyoun S. Kim • Michael J. A. Wohl • Melissa M. Salmon •
Rina Gupta • Jeffrey Derevensky**

- Longitudinal study of 409 players of SCGs
- 6 months later...
 - **26% had migrated to online gambling**
- Best predictor of migration was spending money on microtransactions (8x greater)

Skin gambling

Virtual goods: “Skins”

<p>M4A4 Howl Field-Tested Contraband Rifle</p>  <p>\$380.00 ✓ Suggested Price: \$355.00</p> <p>Inspect Add to Cart GO</p> <p>Wear: 24.135%</p>	<p>AK-47 Vulcan Factory New Covert Rifle</p>  <p>\$48.00 22% OFF ✓ Suggested Price: \$61.23</p> <p>Inspect Add to Cart GO</p> <p>Wear: 5.523%</p>	<p>★ My Bayonet Boreal Forest Well-Worn ★ Covert Knife</p>  <p>\$76.00 ✓ Suggested Price: \$79.24</p> <p>Inspect Add to Cart GO</p> <p>Wear: 38.505%</p>
<p>★ Shadow Daggers Case Hardened Well-Worn ★ Covert Knife</p>  <p>\$59.00 ✓ Suggested Price: \$63.54</p> <p>Inspect Add to Cart GO</p> <p>Wear: 42.656%</p>	<p>AWP Dragon Lore Factory New Covert Sniper Rifle</p>  <p>\$1,799.99 ✓ Suggested Price: \$1,350.00</p> <p>Inspect Add to Cart GO</p>	<p>StatTrak™ Galil AR Sandstorm Field-Tested StatTrak™ Mil-Spec Grade Rifle</p>  <p>\$26.32 ✓ Suggested Price: \$3.29</p> <p>Inspect Add to Cart GO</p>

Powered by Steam, a registered trademark of Valve Corporation. OPSkins.com - CS:GO Marketplace | Terms & Conditions



Skins Gambling

A multi-gaming realtime experience

Create an account

Join our awesome community

Display name

Email

☐ I have read and accept [terms of service](#)

☐ I am over **18 years-old**

CREATE MY ACCOUNT

Already have an account? [Log in](#)

CSGO Skins – News headlines in 2016

Counter-Strike skins gambling: Australian teens risking thousands through video game

Washington state orders Valve to end 'Counter-Strike' gambling

Valve Issues Cease And Desist Letter To 23 *Counter-Strike* Gambling Sites

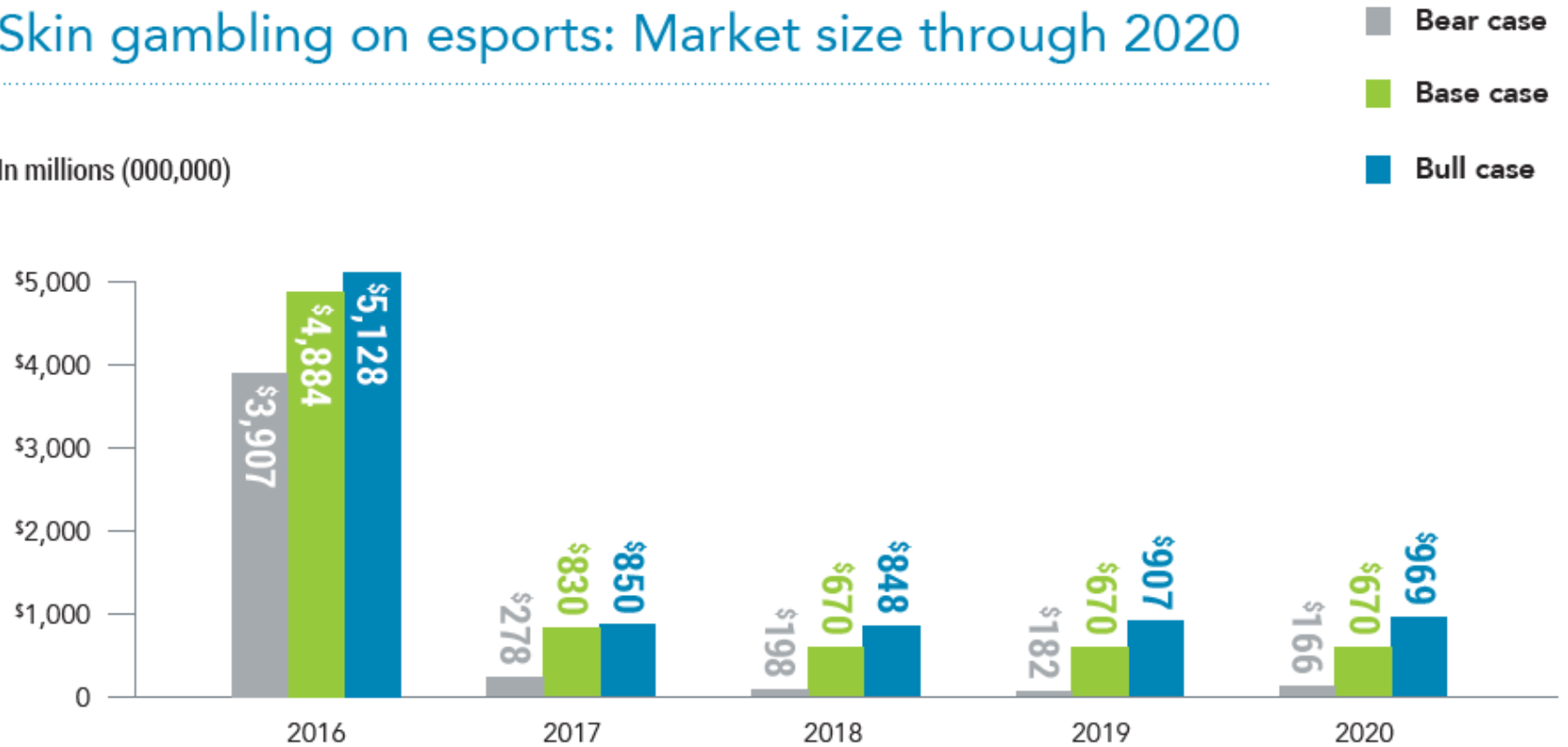
Counter-Strike YouTubers revealed as owners of gambling site they promoted

YouTubers Behind *Counter-Strike* Gambling Scandal Get Sued

Market uncertainty due to trade restrictions

Skin gambling on esports: Market size through 2020

In millions (000,000)



Source: Narus Advisors / Eilers & Krejcik Gaming

**Skin gambling promotions via
social media and game streaming**

Skin gambling promotions I



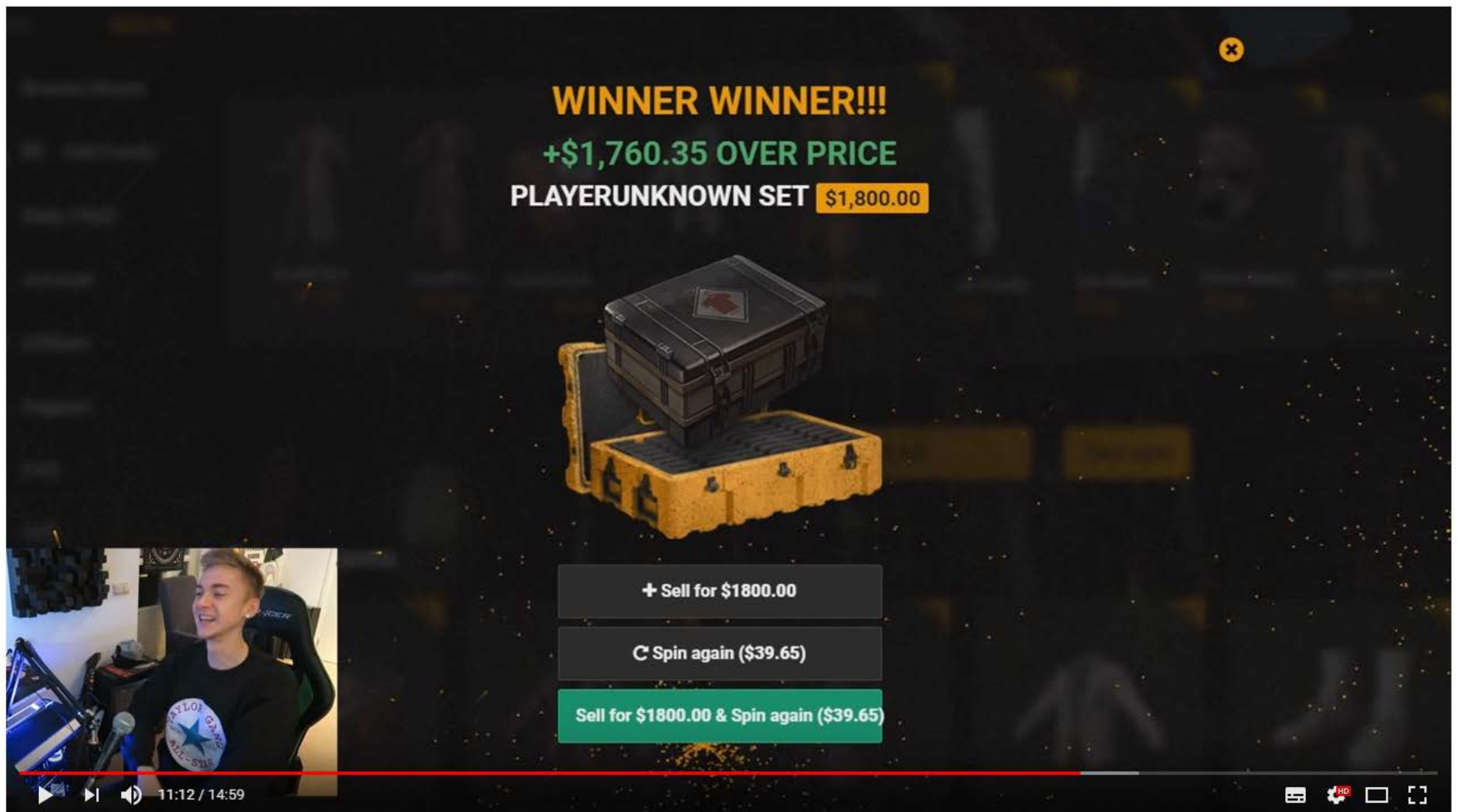
A screenshot of a YouTube video player. The video content shows a close-up of a CSGO skin, the 'Dragon Lore' for the FN rifle, displayed on a red background with a yellow border. The text 'DRAGON LORE' is prominently displayed in white, and the price '\$2387.60' is shown in yellow at the bottom right. A white hand cursor is pointing at the price. In the bottom right corner of the video frame, a young man with blonde hair, wearing a white t-shirt and large black headphones, is looking towards the left. The video player interface at the bottom includes a progress bar showing 3:12 / 10:07, and standard YouTube controls like play, volume, and share. Below the video player, the video title 'Turning \$25 into a Dragon Lore (900\$ CSGO Skin)' is visible, along with the view count '396,275 views' and engagement metrics: 5.6K likes, 264 comments, and a share button.

Turning \$25 into a Dragon Lore (900\$ CSGO Skin)

396,275 views

5.6K 264 SHARE

Skin gambling promotions II

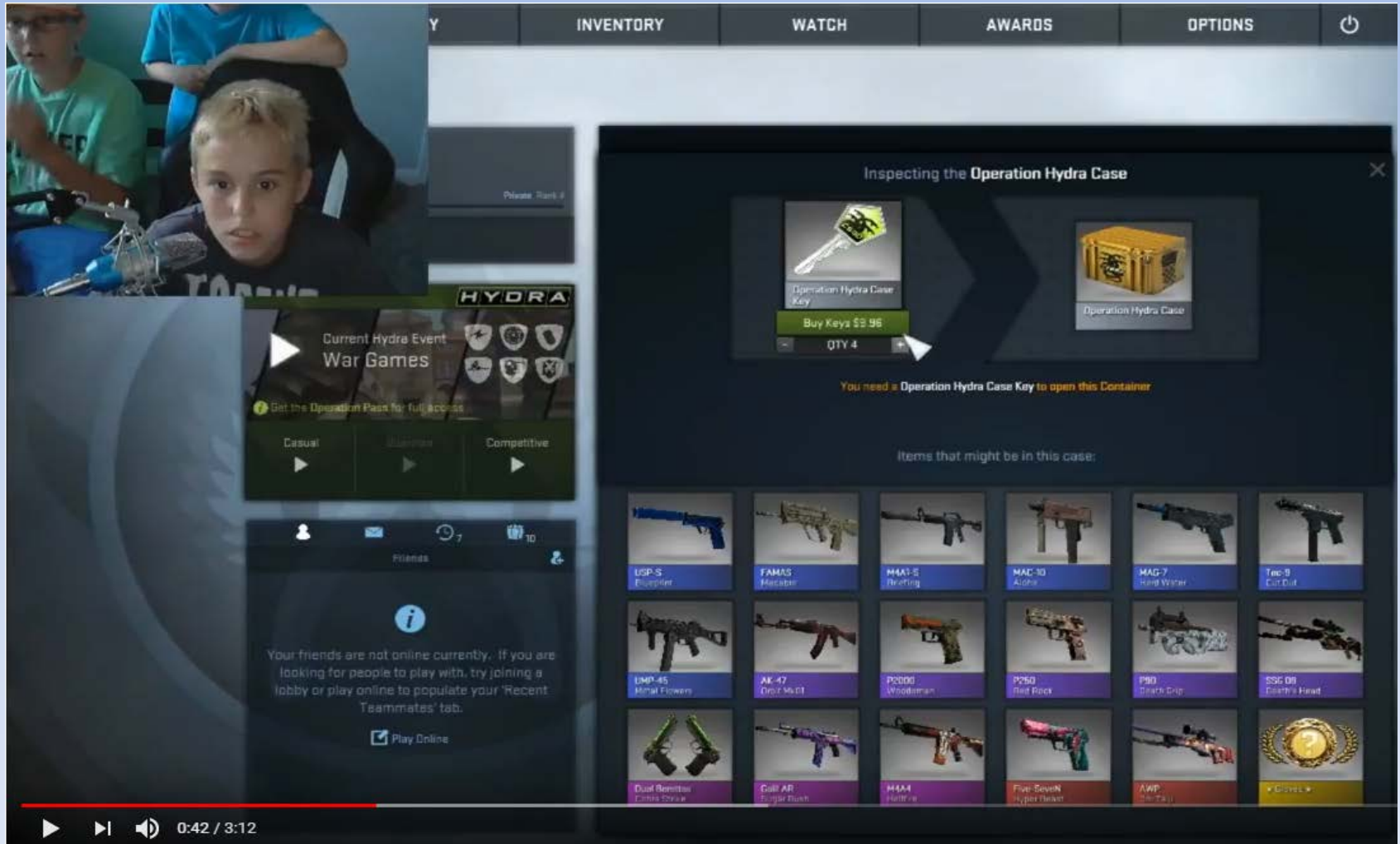


PUBG BOX OPENING (SO GOOD everyone thinks it's rigged)

99,899 views

2.4K 3.7K SHARE

Underage skin trading/gambling



CS:GO Loot Crate Opening | INSANE KNIFE PULL (\$10 Dollar Budget Pull) 2 Purples, 1 GOLD

UK Gambling Commission, Dec 2017

Online participation

- 3% of 11-16 year olds have ever spent their own money on online gambling (no change since 2016) while 7% have gambled online using a parent's account
- 11% have ever played free gambling-style social games online
- 11% have ever bet with in-game items when playing computer or app-based games

Gambling advertising and social media

- 80% of young people have seen gambling adverts on TV, 70% on social media and 66% on other websites
- 10% follow gambling companies on social media

Problem gambling and gambling-related harm

- 0.9% of 11-16 year olds are classified as 'problem' gamblers, 1.3% as 'at risk' and 15.5% as non-problem gamblers¹
- 39% of young people stated that their parents had discussed the problems that gambling can lead to with them

- Sample: 2,881 adolescents 11-16 years

Research Spotlight: Gaming-gambling links



Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh



Free-to-play: About addicted Whales, at risk Dolphins and healthy Minnows. Monetization design and Internet Gaming Disorder



M. Dreier^{a,c,*}, K. Wölfling^a, E. Duven^a, S. Giralt^a, M.E. Beutel^b, K.W. Müller^a




^a Outpatient Clinic for Behavioral Addictions, Department of Psychosomatic Medicine and Psychotherapy - Medical Psychology and Medical Sociology, University Medical Center of the Johannes Gutenberg-University Mainz, Duesbergweg 6, 55128 Mainz, Germany

^b Department of Psychosomatic Medicine and Psychotherapy, University Medical Center Mainz, Untere Zahlbacher Straße 8, 55131 Mainz, Germany

^c Researcher and Project Manager at the Outpatient Clinic for Behavioral Addictions, Department of Psychosomatic Medicine and Psychotherapy - Medical Psychology and Medical Sociology, University Medical Center of the Johannes Gutenberg-University Mainz, Duesbergweg 6, 55128 Mainz, Germany

- Survey of 3,967 children in Germany
- Expenditure on games was associated with IGD
- ‘Whales’ spent 16+ euros per month

Do Simulated Gambling Activities Predict Gambling with Real Money During Adolescence? Empirical Findings from a Longitudinal Study

Tobias Hayer¹  · Jens Kalke² · Gerhard Meyer¹  · Tim Brosowski¹ 

© Springer Science+Business Media, LLC, part of Springer Nature 2018

Abstract As technology has developed, the international gambling market has changed markedly in recent years. The supply of internet-based gambling opportunities has become ever more significant. At the same time, the introduction of new gambling opportunities always brings a demand for evidence-based scientific evaluation, with regard to the associated risks of addiction. Simulated internet gambling, which is the focus of this study, represents a relatively new product group located at the interface between gambling and computer gaming. Concerns have been raised in scientific literature, especially with regard to the adolescent age group, as to whether participation in simulated internet gambling directly promotes recruitment to the world of monetary gambling, as defined in the gateway hypothesis. The research design was based on a standardized, representative longitudinal survey (over a 1-year period) with a total of 1178 school pupils from Northern Germany ($M = 13.6$ years; 47.5% male). It must be borne in mind that 12% of the adolescents belonged to the subgroup of “onset gamblers” and first reported experience with monetary gambling at the second stage of surveying. Logistic regression analysis demonstrates that this migration process is fostered by (1) participation from home in simulated gambling on social networks and (2) significant exposure to advertising (relating to both simulated and monetary gambling). Within the subgroup of simulated internet gamblers, variables such as particular patterns of use (including breadth and depth of involvement with simulated internet gambling, certain motives for participation, and microtransactions) do not serve as significant predictors. Despite this, important needs for action for the purposes of prevention and research can be identified.

Keywords Simulated gambling · Longitudinal study · Adolescence · School survey · Predictors · Gambling onset


Hayer et al.
2018

Gambling onset
predicted by
exposure to
advertising

Molde et al.
2018

Problem video
gaming
predicted
problem
gambling over
time

Are Video Games a Gateway to Gambling? A Longitudinal Study Based on a Representative Norwegian Sample

Helge Molde¹  · Bjørn Holmøy¹ · Aleksander Garvik Merkesdal¹ ·
Torbjørn Torsheim² · Rune Aune Mentzoni² · Daniel Hanns³ · Dominic Sagoe² ·
Ståle Pallesen²

© The Author(s) 2018

Abstract The scope and variety of video games and monetary gambling opportunities are expanding rapidly. In many ways, these forms of entertainment are converging on digital and online video games and gambling sites. However, little is known about the relationship between video gaming and gambling. The present study explored the possibility of a directional relationship between measures of problem gaming and problem gambling, while also controlling for the influence of sex and age. In contrast to most previous investigations which are based on cross-sectional designs and non-representative samples, the present study utilized a longitudinal design conducted over 2 years (2013, 2015) and comprising 4601 participants (males 47.2%, age range 16–74) drawn from a random sample from the general population. Video gaming and gambling were assessed using the Gaming Addiction Scale for Adolescents and the Canadian Problem Gambling Index, respectively. Using an autoregressive cross-lagged structural equation model, we found a positive relationship between scores on problematic gaming and later scores on problematic gambling, whereas we found no evidence of the reverse relationship. Hence, video gaming problems appear to be a gateway behavior to problematic gambling behavior. In future research, one should continue to monitor the possible reciprocal behavioral influences between gambling and video gaming.

Keywords Gambling · Video gaming · Longitudinal · Representative sample · Cross-lagged

Areas for consideration

Video game loot boxes declared illegal under Belgium gambling laws

🕒 26 April 2018

f t m ✉ Share



Video game loot boxes are "in violation of gambling legislation", according to the Belgium Gaming Commission.

Failure to comply may lead to a fine of €800,000 (£697,000) and up to five years in prison for the publishers.

Belgium Gambling Commission

- 2018 recommendations

With regard to distributors and game developers (EA, etc.):

- Clear indication of the chances of winning for the various item values.
- Permit complete control of the random number generators used for the loot boxes by the Gaming Commission's Technical Assessments team.
- Provision of the data of players and payments.
- Introduction of a financial ceiling for the monetary amount that can be spent on loot boxes.
- The presence of paid loot boxes may not impede or disadvantage a normal game without paid loot boxes.
- A game symbol 'gambling' is needed (e.g.: "contains gambling").

Belgium Gambling Commission

- 2018 recommendations

With regard to the regulator:

- Update the Gaming Commission so that parents and children can be better informed about and protected against gambling addiction and so that more research can take place on the presence of gambling elements in (free) video games. It must be possible to inspect video games for the presence of problematic gambling elements in the event of a complaint against them or as a matter of course. This will serve both to put into perspective the gambling element (video games where elements of chance are not problematic) and protect players (making clear to players and parents which video games are not suitable for minors).
- Specific permits must be developed for games of chance in video games.
- Principal ban on minors purchasing games with paid loot boxes.
- Age verification in supermarkets when purchasing codes or gift cards for video games. Minors may not make payments associated with video games that are not suitable for minors.

Many issues to consider

- Representation of products and services
- Classification of these products
- Consumer protection measures
- Age restrictions and enforcements
- Parent and adolescent education
- Identification of vulnerable players
- Licences for operators
- Benefits for the community

Age rating



Mature/Adult
Coarse Language
More

In-app purchases

AU\$10.65 – AU\$59.95

Psychoeducation for teens

- Games can be seen as ‘non-commercial’ because they are critically praised art
- But games are designed to make money for developers and publishers
- Games will be more profitable if
 - increase and maintain their player install base,
 - players making in-game purchases
 - promote the games
- Game items are engineered to foster beliefs that fuse with self-identity and social status

Final thoughts on convergence

- Video games are becoming monetised in ways that make them more exploitative
- Some research evidence on gaming-gambling links
- Corporate synergies between gaming companies and third party gambling sites
- Just one aspect of the normalisation of youth digital lifestyle

Thank you!



Daniel King

Research Fellow, Clinical Psych
School of Psychology
The University of Adelaide

Email:

daniel.king@adelaide.edu.au

Researchgate:

www.researchgate.net/profile/Daniel_King6



INTERNET GAMING DISORDER

THEORY, ASSESSMENT, TREATMENT, AND PREVENTION

DANIEL KING AND PAUL DELFABBRO

