

Video Games and Gambling: Players, Practices, and Problematic Behaviour

Presented by: Joseph Macey, Doctoral Researcher,
University of Tampere



Intro 1.

Good afternoon,

Thank you for having me here today.

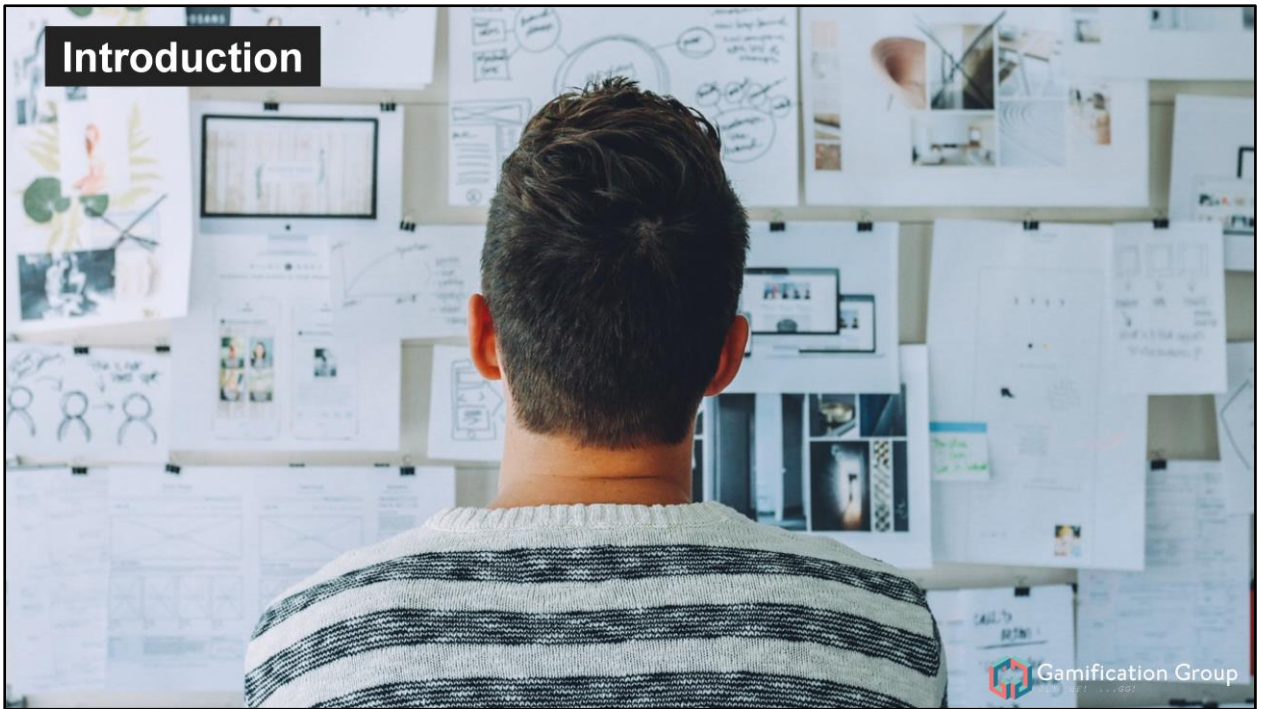
Today I will be presenting some of the work conducted by the esports research project at University of Tampere.

We will look at:

the gambling activities associated with video games and esports

demographics and consumption habits of esports consumers who
gamble

and the interaction between established and newly-emergent
gambling behaviours



Intro 2.

So, a brief introduction:

- Joseph Macey
- Doctoral Researcher at University of Tampere, Finland
- Working on the Esports Research Project project since Summer 2016.
- My work concerns the interactions between video games, esports, and gambling.

The project

- 2.5 year project, due to conclude in December 2018
- Primary source of funding was TEKES

In addition to publishing work in several international journals, we have been invited to advise the Finnish Gambling Authority in regard to the emergence of gambling connected to esports

The research and findings discussed in this presentation are derived from 2 separate surveys that we conducted.

- The first was at a live, physical event where we surveyed attendees (n=251, of which approx. 45% participated in gambling)
- The second was an online survey, with global reach (n=613)

Problems with Games



Overview:

The potential links between video games and problematic behaviours has been a common narrative since the popularisation of gaming in the early 80s.

For example: To this day, stories continue to be published which state video games cause violent behaviour – however no such links have been found, despite extensive research.

Other concerns include: social isolation, academic underachievement, substance abuse... and gambling.

Early Work

GAMBLING *starts with* GAMES.



Since the late 80's relationships between video games and gambling have been studied.

Initially, comparisons were made between the development of pathological gambling and pathological gaming.

Studies also looked at “criminal video game players”, those who stole, etc. to fund gaming “habit”. (is particularly related to context as, at the time, gaming was mainly accessed by playing at arcades)

Perhaps one of the most enduring of ideas to come out of this early period of study is that game playing serves as a developmental pathway to gambling, one which results in increased likelihood of problematic gambling behaviour.

Early Work

GAMBLING *starts with* GAMES.



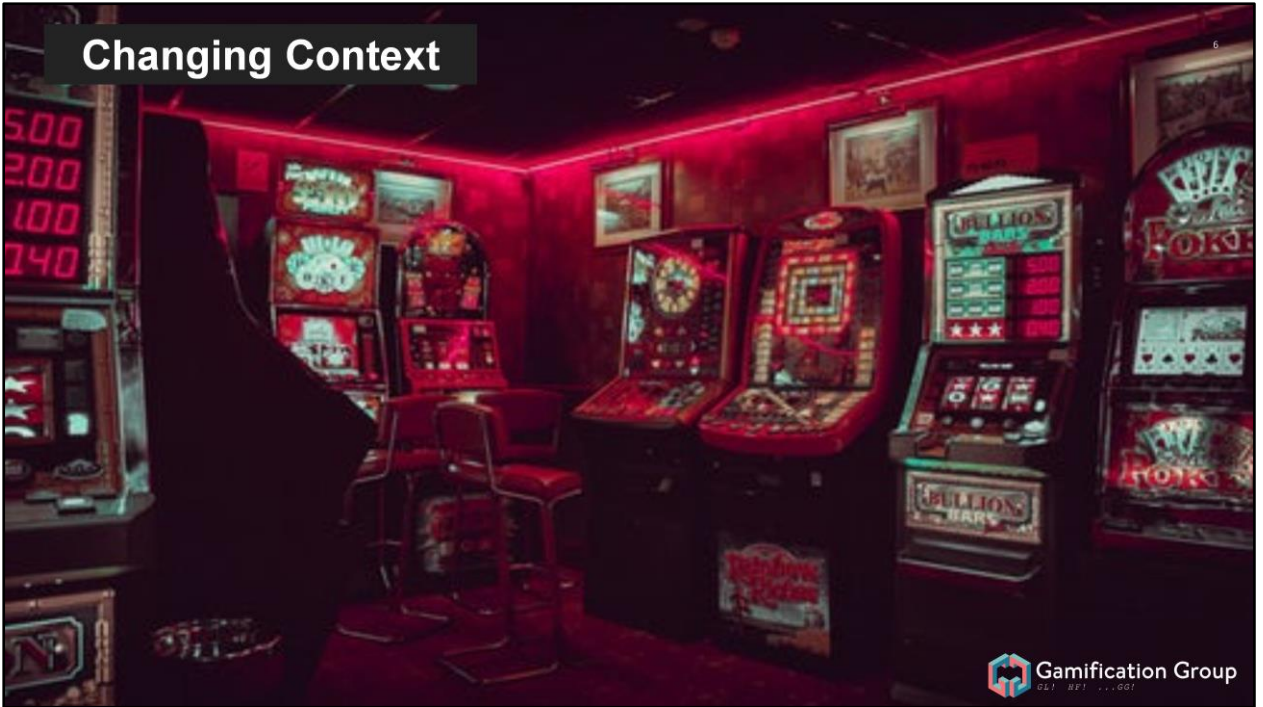
This “pathway” model suggests that the structural similarities between video gaming and gambling encourage transition from gaming to gambling.

(Structural similarities include: location in physical environment, rapid event frequency, audio-visual cues such as flashing lights and bursts of music, etc.)

Although this idea continues to be influential today, increasing amounts of research have found that video game players are no more likely to participate in gambling than non-players.

Some studies even suggest that they gamble to a lesser degree than other populations.

Changing Context



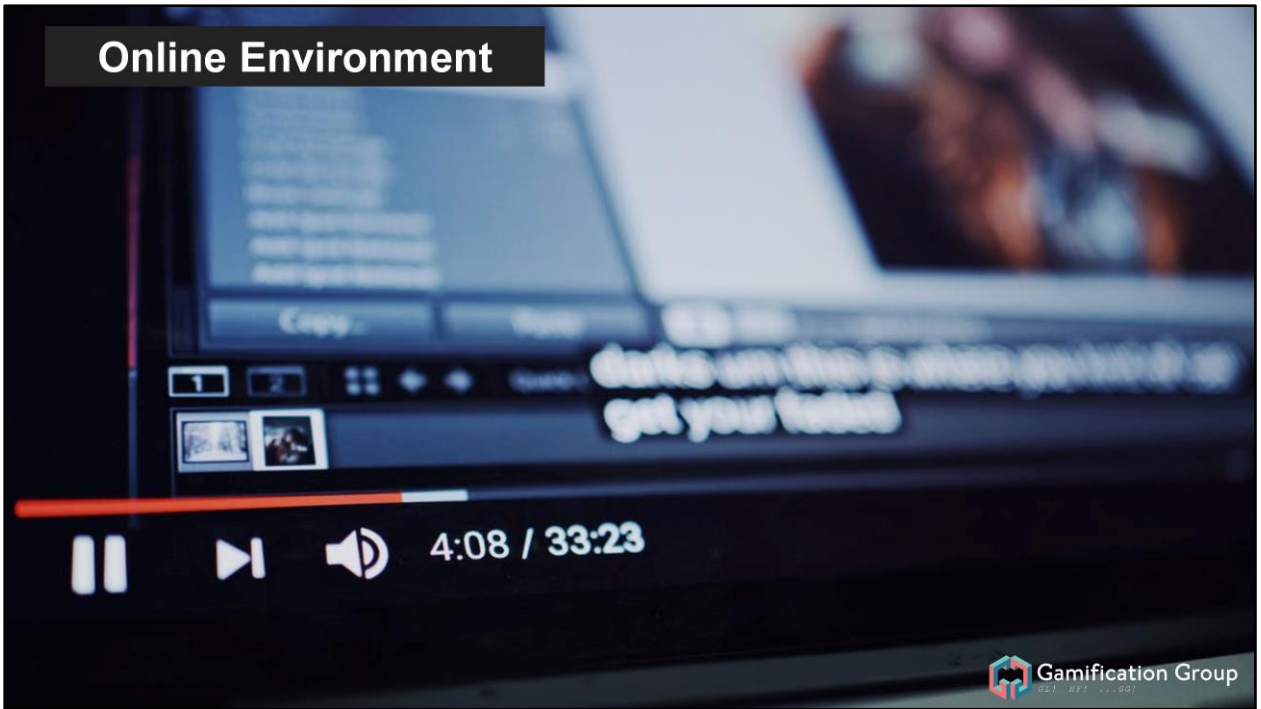
One key consideration is that these ideas are derived from a gaming context which was very different from that of today, one based around play at arcades.

In the same way, the form of gambling studied was that of fruit machine use (slot machines).

The changing context of video gaming mean that similarities between games and established forms of gambling are less pronounced these days.

The gambling industry has noted the downward trend where younger generations are not participating in gambling to the same degree as previous generations (the “millennial problem”).

Online Environment



Online environment.

The consumption of gambling activities related to esports is primarily facilitated online (although sportsbook style betting is beginning to be introduced in some physical venues).

This mirrors the way in which esports itself is consumed, with the vast majority of content being made available through online platforms such as Twitch and YouTube.

Alongside esports video content (both live-streamed and pre-recorded), there is a huge amount of material directly related to gambling, most notably that which is related to skins gambling (discussed later).

The growth in popularity and, subsequently, volume of online video material has focused attention on the largely unregulated nature of this new gambling environment:

Esports gambling has been associated with several significant scandals

- YouTubers being fed information by the sites they were using to gamble

- YouTubers not declaring that they owned the sites they were using



It seems that there is a new trend of convergence which accounts for the decreasing involvement of younger generations in traditional forms of gambling.

Convergence (Jenkins, 2006): definition

In this way, video games are a kind of vehicle for gambling, whether intentionally or unintentionally. This is not a new process, it most obvious in sports but can be seen in many aspects of popular culture including films, tv shows, even politics to some extent. This is true in regard to being the subject of gambling (i.e, winner of Oscar for Best Picture) or as a means to increase the appeal of gambling (themed games, scratch-cards, etc.).



Examples of convergence between gaming and gambling

Esports: The formalisation of competitive video game play has facilitated betting, fantasy sports, etc. (Esports is, in itself, another example of media convergence – side issue).

Social Network Casino Games: These games provide simulated gambling in the same format as F2P games, essentially you can play for free or pay to play more... but with no possibility to “cash out”. Sometimes these SNCs provide rewards in the form of site-specific currency/tokens that can be redeemed in actual online casinos.

Streaming: Many videos are available on youtube and other sites which show people participating in gambling activities connected to games, creating an environment in which such behaviour is normalised.

Use of virtual items: Virtual items are a significant part of contemporary video games, whether part of closed- or open- game economies. There are some types of items (notably CS:GO skins) which are used to access gambling in place of real-world currencies.

Emergent forms of gambling directly connected to video games...

Gambling Activities – Direct Translation



Summary 1.

Gambling associated with esports has two distinct characteristics:

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- Direct translation of established activities to new context

Esports betting

Fantasy esports

Themed/adapted casino games (roulette, slots, etc.)

Other themed games: rock, paper, scissors; coin flipping

Gambling Activities – Emergent Forms



Summary 2

Second, we can see the emergence of novel activities, ones directly related to the context (of esports and video games)

There are forms which are new, but have real-world analogues:

PvP betting – analogue, informal betting.

Skins lotteries – analogue, sweepstake/jackpot-style lotteries.

Also, emergent activities with no direct analogue: crash betting.



And then there is the gambling-like activity of loot box opening...

It's intimately connected with much of the previously-discussed activities but the complex nature and muddy legal status means it requires discussion separately from everything else.

If you enter "video games and gambling" into an unspecified Search Engine approx. 80% of results (first few pages) mention "loot boxes" in some way.

Loot boxes can be opened in-game, or via 3rd-party "box opening" sites.



So, what are loot boxes?

Started in F2P games, but have moved into mainstream, big-budget games.

Loot boxes (also called, crates, chests, and many other similar terms) are in-game items which, when opened, give rewards to players.

These rewards vary from game to game, but typically consist of such items as: in-game currency, decorative items (called skins*), other customisation options (avatar victory poses, emotes, etc.). The rewards are randomly-generated and are, therefore, analogous to scratch-cards. *skins gambling = associated with cs:go etc.

Some games also provide rewards which directly affect gameplay, such as power-ups – but this is not so common.

Some games allow you to open loot boxes for “free” (either using in-game currency, or as a reward for in-game effort, such as completing missions/levels). However, the majority require you to pay real-world currency for a “key” which unlocks the loot box.

(Those games which allow “free” opening, often supplement this with the option to purchase additional keys/crates).

Similarly, some games allow players to trade items, thereby creating a market-driven economy in which rare items are valued highly. On the other hand, some games do not permit trading between players, but allow players to claim in-game currency as reimbursement for duplicate skins. Also, game accounts can be auctioned on 3rd-party sites (similar to gold-farming – if anyone is aware of that)?

Legal Definitions

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Gambling laws vary considerably between countries, even in regard to established forms of gambling.

The complexity of loot boxes and in-game economies, and range of ways in which loot boxes are incorporated into games, has contributed to differing opinions between academics, between legislators, and between consumers as to whether or not opening loot boxes constitutes gambling.

Legal definitions of gambling are often framed in reference to the exchange of money, as a stake and as a potential prize – as such, the use of virtual items and currency is not accommodated in these definitions.

one of the more notable judgements made by the US courts being that that virtual items are not considered to have value outside the game, and therefore are not subject to gambling regulations. This position is in contrast to that of the UK.

UK Gambling Act, 2005

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UK Gambling Act, 2005.

defines “gambling” as either a) gaming, b) betting, or c) playing a lottery, in turn “gaming” is defined as “playing a game of chance for a prize”, where “prize” “means money or money’s worth”, the prize does not require the return of the original stake when applied to gaming machines (Gambling Act, 2005).

By this definition, any purchase of a key to open loot boxes constitutes gambling in the same way as playing an electronic gaming machine

However, the Gambling Commission maintains that loot boxes are not gambling as they cannot be exchanged outside the game.

This is, however, incorrect as numerous services exist that allow players to exchange virtual game items for real-world currency, services provided by both game developers such as Valve, or third parties.

Recent Decisions

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 Gamification Group
GPT ... GPT

In the past month, both the Belgian and Dutch regulators have announced their judgements that certain kinds of loot boxes constitute gambling:

Dutch authorities announced that any loot box with a prize which can be exchanged for real-world currency is gambling.

Belgian authorities announced that any paid loot box opening constitutes gambling, irrespective of whether the prize is transferable or not.

Echoes the approach of Asian regulators, notably China and Japan who have already addressed similar game mechanics in legislation.



How are loot boxes connected to gambling?

Basic mechanic (as described previously) is of randomly-generated rewards which more often than not, require payment to access. (scratch-card)

There are 3rd-party case opening sites.

There are simulated case opening sites.

They are the source of skins which are used in a host of other, accepted forms of gambling. (skins lotteries, casino games, coin-flipping, etc.)

There is anecdotal evidence of people “dealing” in boxes and keys in the same way as any other commodity market, basically a stock exchange for virtual items.

Our Data



Legal issues and our data.

Our research shows that a significant amount of esports gamblers (approx. 60%) reside in territories where online gambling is either restricted or illegal:

The figures may be somewhat skewed by the US, where only Nevada permits online sports betting.

In total, our dataset consists of 61 different nationalities, representing countries from every continent.

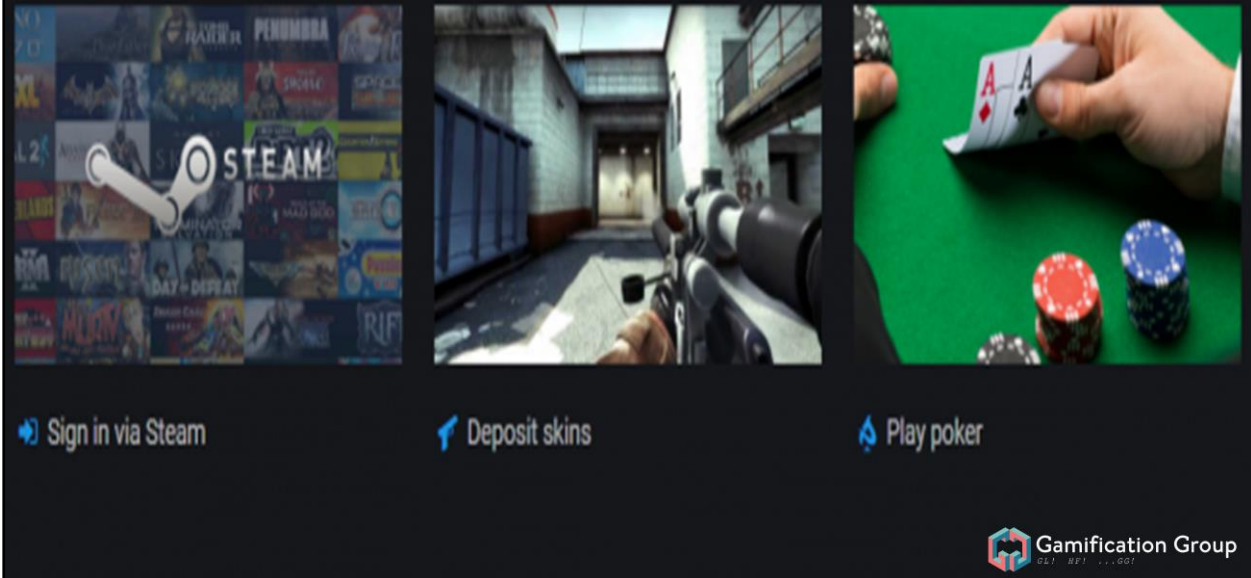
- Esports gambling is an activity which spans the globe, and is often happening in environments which are unregulated and requires attention as financial significance is growing

Activity		Direct translation of existing activities	Non-video game Analogue
Primary Descriptor	Secondary Descriptor		
Betting	Sportsbook	Yes	Traditional Sportsbook
	Fantasy sports	Yes	Traditional Fantasy sports
	PvP	No	Informal Betting
Loot Boxes	In-game	No	Lottery Scratch card
	Third-party case opening sites	No	Lottery Scratch card
Skins and other Virtual Items	As stakes in established activities (e.g., betting, casino games, etc.)	Yes	use of money
	Skins Lotteries	No	Sweepstake/Jackpot Lottery
	Crash Betting	No	n/a

Summary of gambling activities connected to video games and esports.

Ge Loot Boxes – Connections to Gambling

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Irrespective of whether or not opening loot boxes itself constitutes gambling, there is evidence of connections between the two activities:

In our online survey 177 people reported opening loot boxes

Approximately 85% reported paying to open loot boxes.

In total 5% of those who opened loot boxes did not pay anything to do so, nor did they participate in any other form of gambling.

Over 60% of those who opened loot boxes used skins as wagers in other forms of gambling.



As mentioned previously we have so far conducted 2 separate surveys which asked about video games, esports, and gambling.

1st: Assembly, August 2016.

Face-to-face

(n=251, of which approx. 45% participated in gambling)

2nd. Online survey (social media, discussion forums, etc.)

global reach

(n=613)

Demographics



Demographics 1.

So, who are esports gamblers?

Our research shows that consumers of esports-related gambling skew young (millennial), and male

Our findings support existing research in the area – although the degree to which under-age gamblers were represented was unexpected.

- Indeed, data gathered from the survey at Assembly showed that 15-year olds were the most involved gamblers, both in regard to frequency of gambling and average monthly spend on esports-related gambling

Gamblers, Non-Gamblers, Whole Sample:

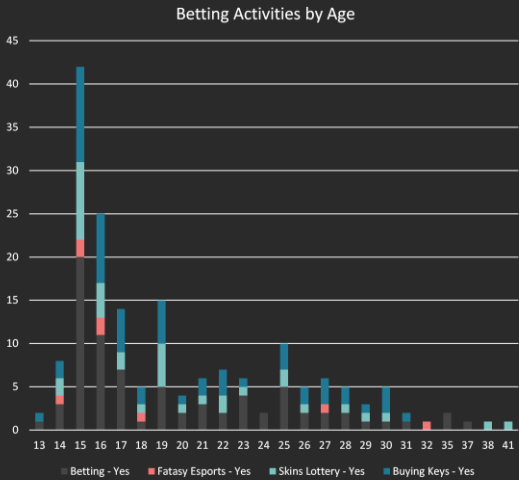
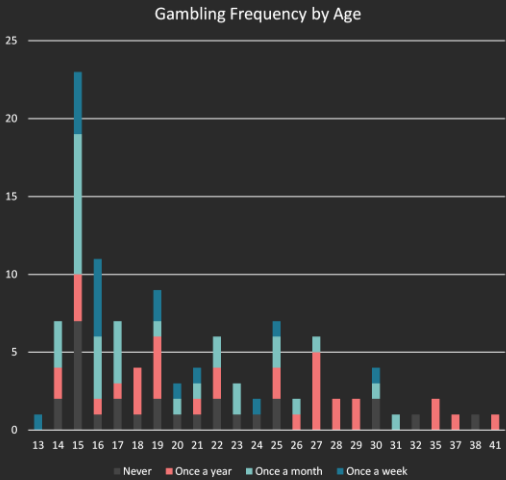
% male: 87, 71, 74

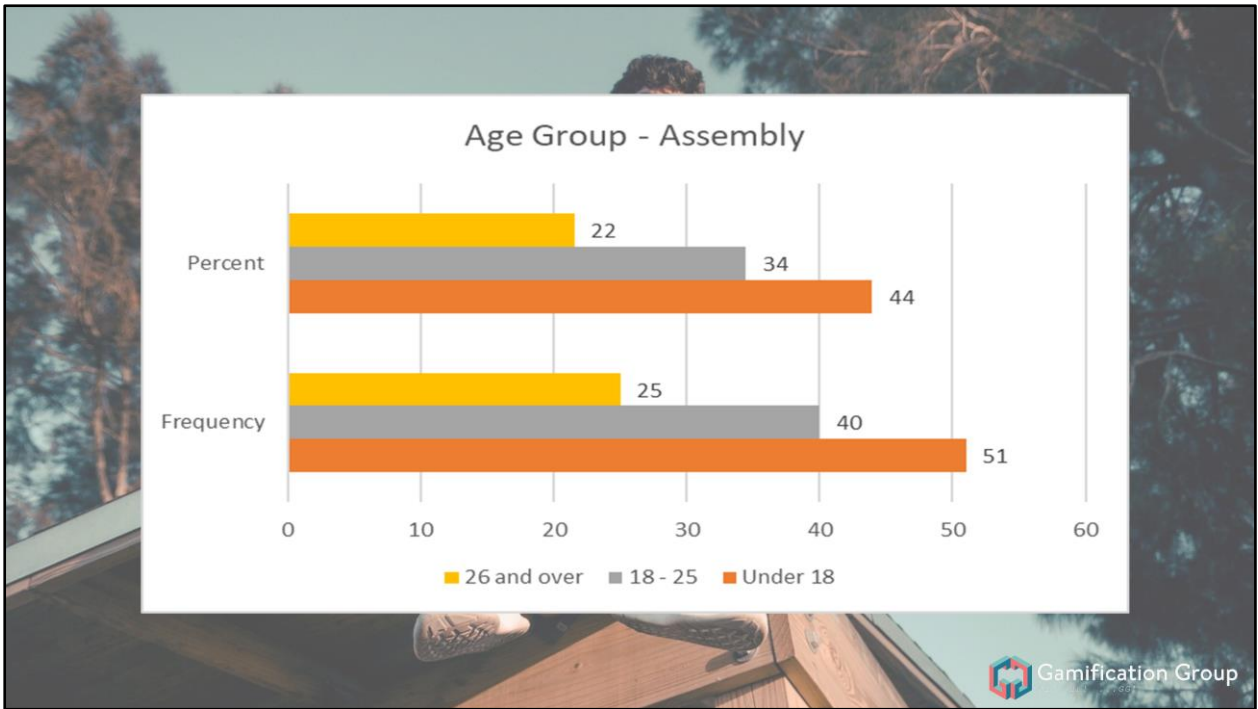
median age: 19, 24, 22

- Gamblers watch more eSports (average weekly hours)
- Gamblers play more video games (average weekly hours)

Gambling at Assembly Summer 16

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Demographics - Assembly

Under 18s are the single largest group, accounting for over 44% of respondents.

In total, 78% of respondents were aged 25 or under

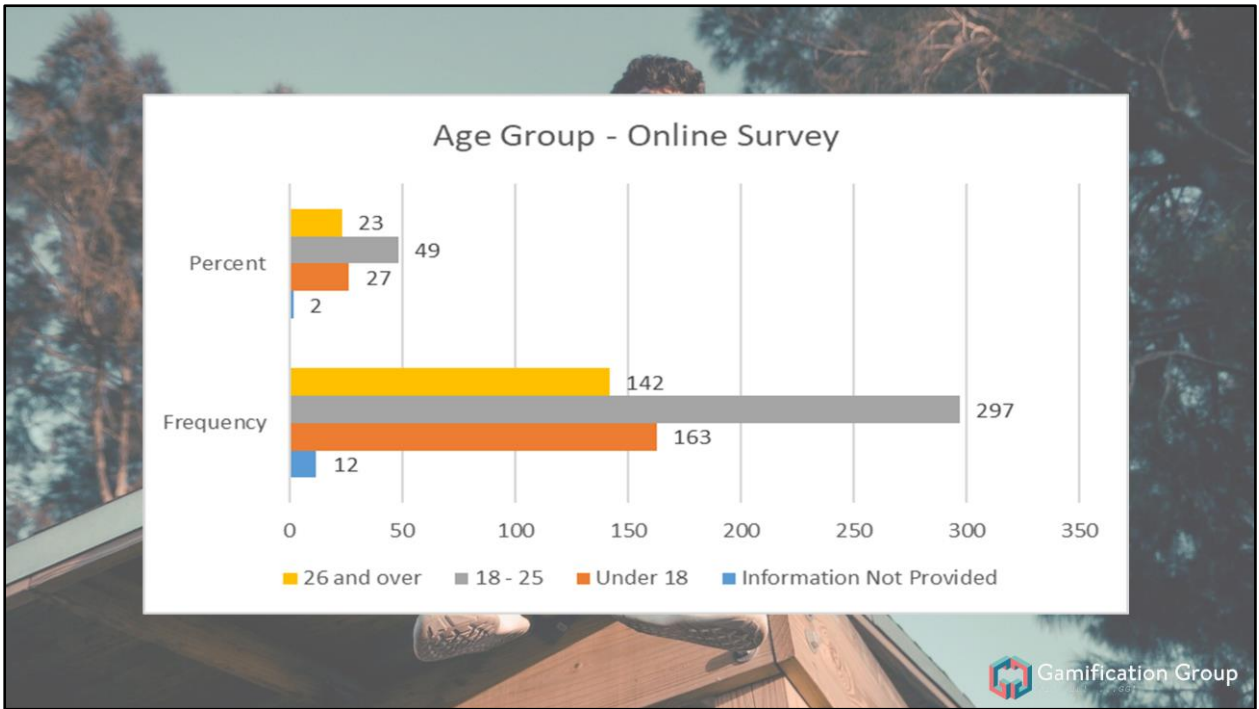
Participation Rates - Assembly



Participation rates - Assembly

For those who attended the live event, and participated in some form of gambling

- Betting was most popular individual activity (63%)
- Followed by opening loot boxes (41%)



Demographics - Online

This time under 18s accounted for 27% of responses,

with the largest single group being 18 – 25 (49%)

Again, the overall percentage of respondents aged 25 or under was very high (76%)

Participation Rates – Online Survey



Participation rates - Online

- The top two activities were flipped, with Loot box opening topping the pile at (30%)
- And Esports betting came in at 20%

In the online survey we also collected information about gambling not connected to esports

- Rounding out the top five most popular activities were
- #3: Online betting – 16%
- #4 Offline Lottery – 13%
- #5 Offline betting – 10%

What this tells us:

1. Popularity of betting (across all contexts).
2. More engagement with esports may be associated with increased levels of gambling (assembly attendees were almost double all equivalent categories %)

Our research has found that:

- Total participation in gambling is 67% of population. - just under that of general population (different studies have found between 69% and 83%)
- In addition, gambling was found to be predominantly multi-channel

Gambling Contexts, most popular:

Online and Esports	= 16%
All contexts (offline, online, and esports)	= 14%
Esports only	= 14%

Spending Habits



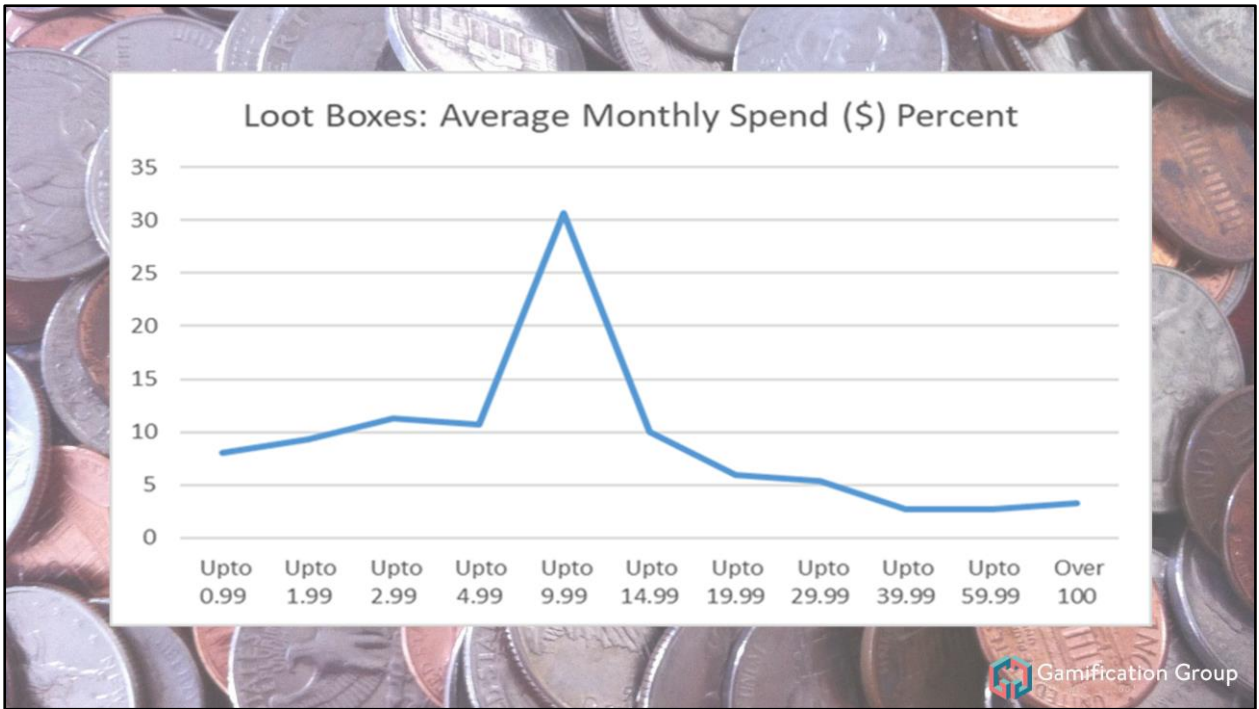
Spending 1.

For all individual activities, we recorded levels of spending, some respondents reported spending on average more than \$200 per month

Approx 30% of respondents reported spending on average \$10 per week on opening loot boxes. (reflects the culture of micropayments common in gaming products)

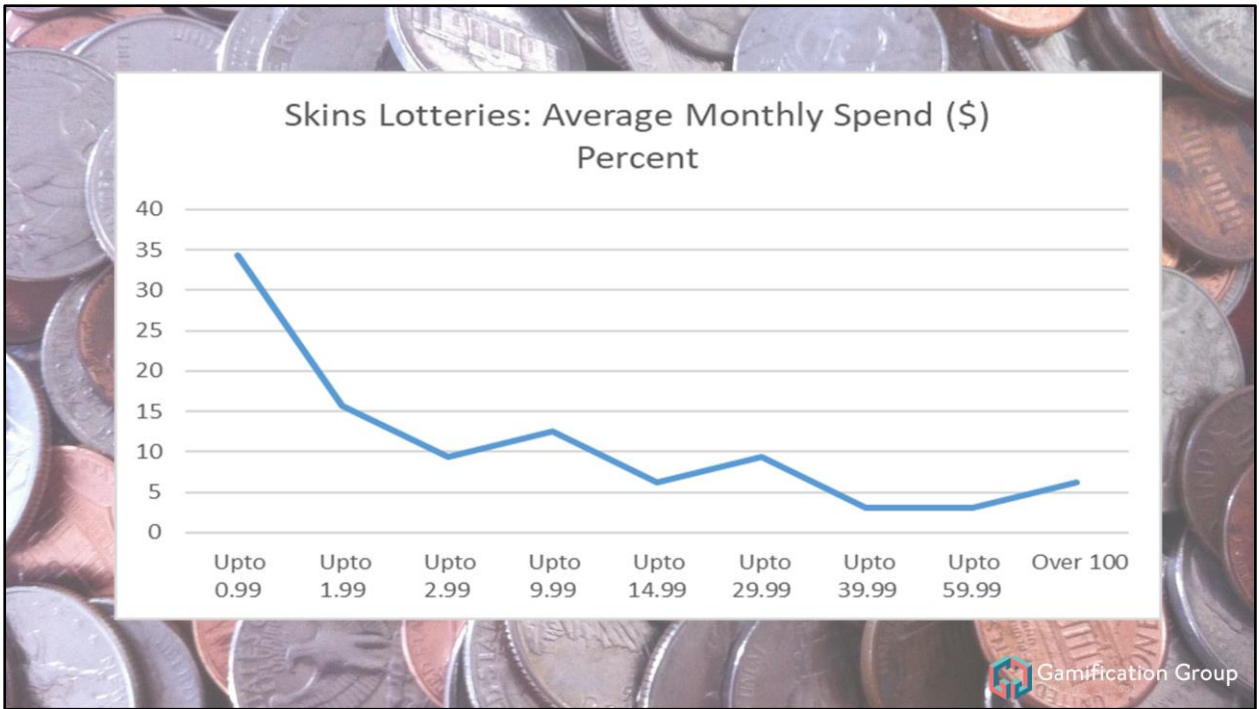
Spending on skins lotteries most closely resembled a classic monetisation/retention curve (but had a couple of mid-curve peaks – at \$10 and \$20 per month)

Spending on esports betting exhibited distinct peaks at \$10 per month and \$100+ per month, with approx. 25 % and 15% of respondents spending such amounts, respectively



Spending 2.

As said, significant spike around 9.99 per month (over 30%)



Spending 3.

More similar to classic monetisation/retention curve, albeit with a couple of small peaks



Spending 4.

Significant peaks at \$10 and \$100+

Demographics - Summary

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Summary:

67.18% of respondents reported both consuming esports and gambling within the preceding 12 months, more than double the amount (32.82%) who watched esports but did not gamble.

- Increased consumption of esports is associated with increased levels of gambling related to video games.
- A finding of considerable surprise was that both average weekly hours and average monthly spend for opening loot crates/cases have significant, negative relationships, of moderate strength, with esports engagement!
- As engagement with esports grows, so too does engagement in both the range of gambling activities as well as the range of channels through which gambling services are accessed.
- 67% of respondents participated in any form of gambling in the preceding 12 months - participation has generally been found to be higher in wider society, with rates of around 75-85% for Western countries.
- Although participation rates in gambling activities are lower than in the general population, the prevalence of problematic gambling behaviours are notably higher.

- Those who are highly engaged in esports participate in gambling at a significantly higher rate (76.27%) than those who have either low (66.24%) or moderate (61.06%) levels of engagement.

Relationships Between Gaming, Esports, and Gambling



Relationships between esports and different forms of gambling.

Using statistical analysis software to analyse the data, our research has demonstrated clear connections between consumption of esports and participation in gambling

Esports engagement has statistically significant relationships with all forms of gambling.

Unsurprisingly, the clearest results relate to Esports gambling: with a distinct, positive relationship between the two.

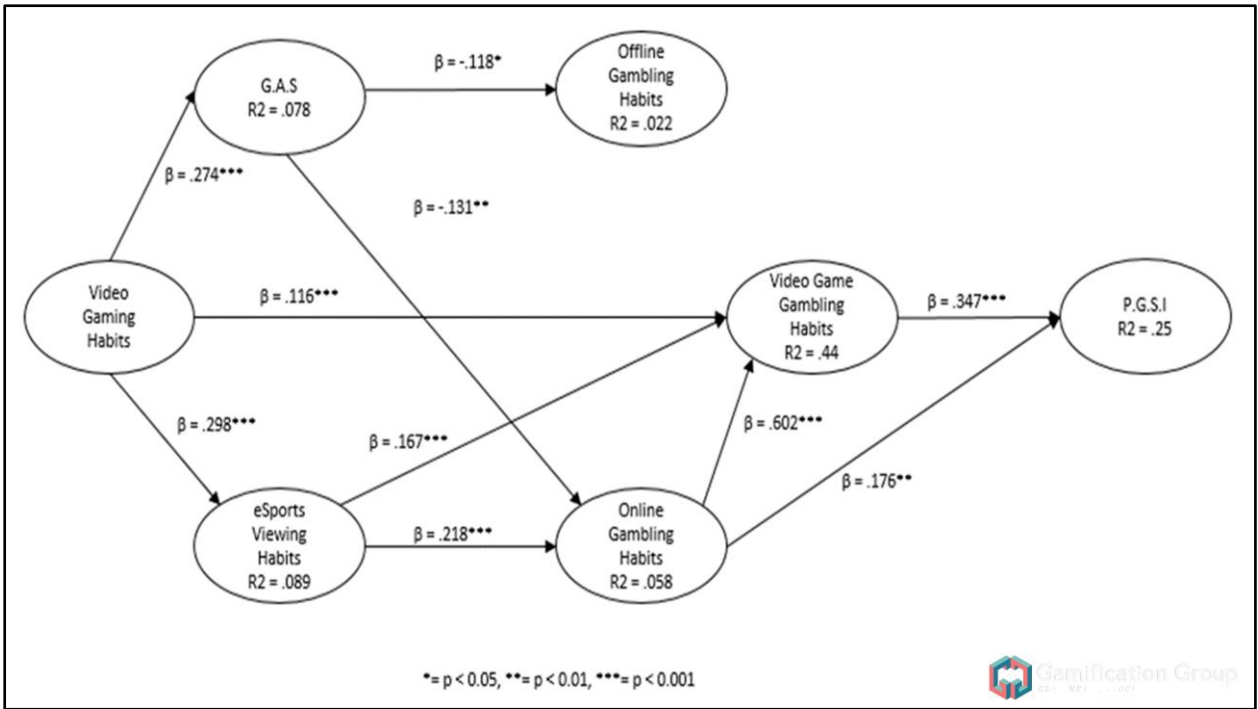
However, in regard to offline gambling, the picture was less clear – but a small, negative relationship is suggested.

Across all contexts (offline, online, and esports related), high engagement with esports was shown to correlate with increased levels of betting

A somewhat surprising finding as that esports engagement had a negative correlation with opening Loot Boxes

As such, we can talk about 2 distinct types of esports gambler:

- The engaged esports enthusiast, who prefers betting
- The more casual consumer of esports, who seeks the more rapid action associated with opening Loot Boxes, and other games associated with skins gambling.



Summary of key findings:

- The consumption of esports is associated with increased gambling in mediated contexts (via video games and the internet) but not with offline gambling.
- The situation in respect to the consumption of video games is, however, more ambiguous, with only a small association shown to exist with video game-related gambling.
- The model shows that problematic video gaming is not associated with higher rates of either gambling activity or problematic gambling.
- In fact, it appears that higher rates of problematic gaming, as measured using GAS, seem to act against involvement in both online and offline gambling, and for the development of problematic gambling behaviour.

The “Story” of Esports Gambling?



The “story” of esports gamblers.

Previous generations, (particularly in the UK and Finland) had their first gambling experiences on slot machines (fruit machines), often located in video game arcades or next to arcade machines in public spaces, such as supermarkets, fast food shops, etc.

This current generation seems to be exhibiting similar types of behavioural urges, but now they can indulge in these activities from their own homes – and they do not even need access to cash. Their gambling can be facilitated via in-game, virtual items (although not exclusively).

The ways in which the millennial generation are finding ways to indulge in gambling, and gambling-like activities connected with video games are increasing all the time...

This development is now being taken up by the gambling industry, not just in relation to online gambling services which offer sportsbook-style betting on esports, but at a more fundamental level where they are developing skill-based games (ones derived from video games) for use in casinos etc.



In summary:

Esports gambling incorporates a diverse range of activities, the majority of which are deeply rooted in the community (innovation likely to continue)

The importance of virtual items in the esports gambling ecosystem cannot be overstated

Esports gamblers are typically millennials, skewing young and male

As engagement with esports grows, so too does a preference for games of skill

Similarly, as engagement with esports grows so too does involvement in gambling directly connected to esports, while traditional, land-based gambling appears to be negatively affected



Thank you

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