Going Beyond Loot Boxes:
How gambling show up in gaming- Exploring the relationship between gaming, gambling & indicators for engaging in these behaviors

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FOUNDER OF
REBOOT & RECOVER

Found in 2013 with the mission to provide solutions for balanced living in a technology driven world

PROFESSOR &
RESEARCHER

Teaches graduate social work students at Edinboro University and conducts research on gaming, gambling, and other technology usage behaviors

AUTHOR &
PRESENTER

Authored peer-reviewed scientific articles and book chapters. Presented in national and international settings to professionals and communities

Gaming can serve a purpose

▶ Some purpose derived from gaming

▶ Interactive socialization

▶ Builds cooperation skills

▶ Quantifiable measure of improvement

▶ Sense of autonomy

▶ Sense of community

▶ What other ways do you find gaming gives purpose?

What gaming & gambling can look like

| Fun | Risky | Problematic | Disorder |

What is Gaming Disorder

▶ Defined by international experts:

▶ In 2013

    ▶ American Psychiatric Association (APA) listed Internet Gaming Disorder in the Diagnostic and Statistical Manual of Mental Disorders- 5 (DSM-5)

▶ In 2018

    ▶ The World Health Organization included Gaming Disorder in the International Classification of Diseases 11

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Gambling Disorder (F63.0)

- Preoccupation
- Withdrawal
- Tolerance over time
- Loss of Control
- Chasing
- Lying
- Gambles to escape
- Risked significant relationships
- Bailouts

4 of the 9 criteria

Cannot be better explained by a manic episode

Gaming Disorder (6C51. 0/ 6C51.1)

- ← Preoccupation
- ← Withdrawal
- ← Tolerance over time
- ← Unsuccessful reduction of gaming
- ← Loss of other interests
- ← Continued use despite consequences
- ← Deception with gaming
- ← Games to escape
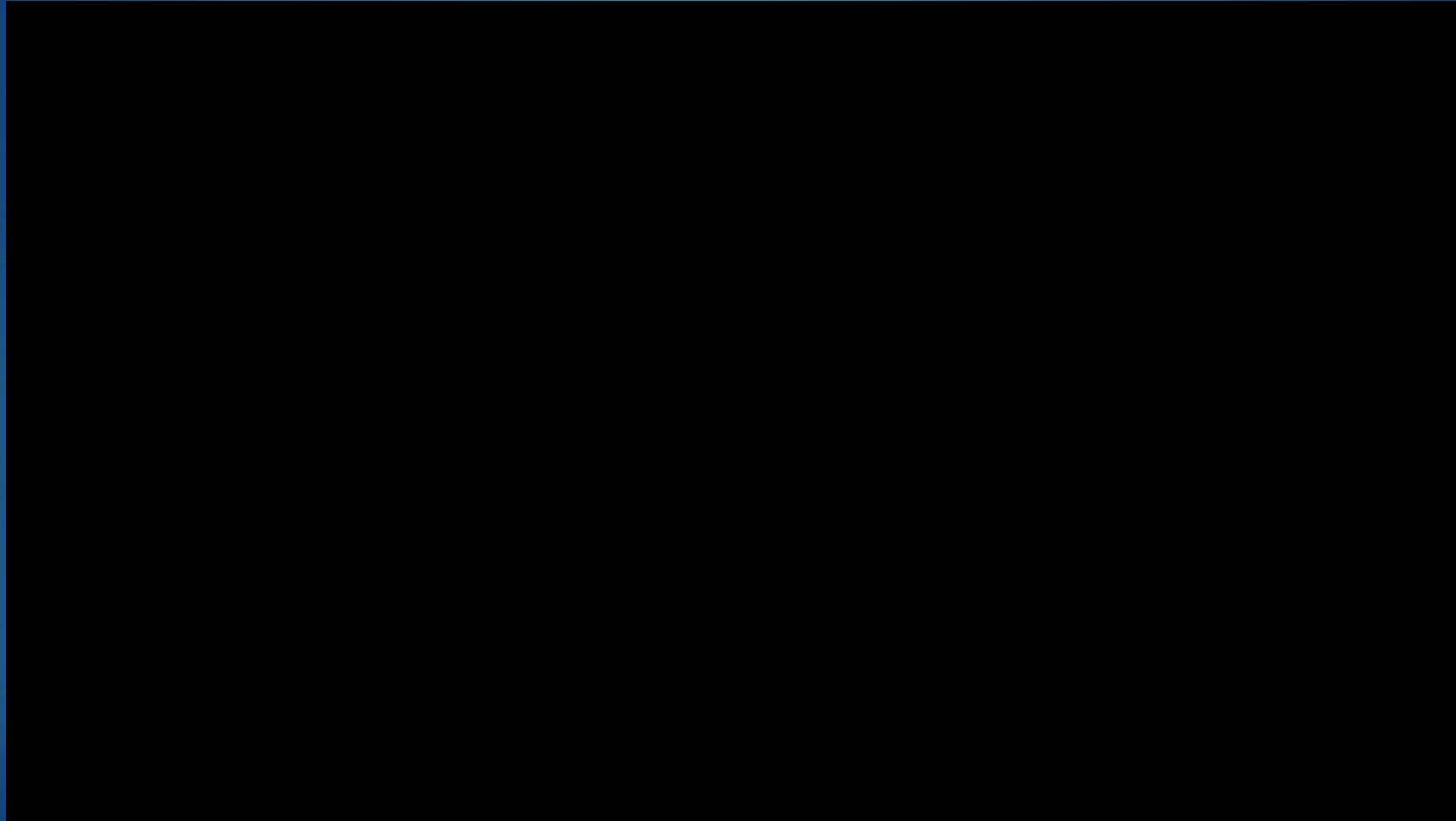- ← Jeopardizes relationships for gaming

5 of the 9 criteria

Must cause clinically significant impairment in social, occupational, and other psychosocial functioning

Cannot be better explained by other disorder

Example of deception with gaming

ICD-11 Criteria

- Impaired control over gaming
- Increasing priority given to gaming
- Continuation or escalation of gaming despite negative consequences

  o Significant impairment in psychosocial functioning

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Gaming Jargon:
Genres of video games

- Sandbox
  - E.g. Minecraft, Roblox
- Real-time strategy (RTS)
  - E.g. Starcraft
- Shooters (FPS and TPS)
  - E.g. Call of duty
- Multiplayer online battle arena (MOBA) or Battle Royale game
  - E.g. of MOBA: League of Legends (LoL)
  - E.g. of battle royale game: Fortnite, Apex Legends
- Role-playing (RPG, ARPG, and More)
  - Sub-genre: MMORPG= Massively Multiplayer Online Role Playing Game
  - E.g. of MMORPG: FF XIV, WoW
  - E.g. of RPG: The Witcher 3: Wild Hunt
- Simulation and sports
  - E.g. NBA2K22, FIFA
- Puzzlers and party games
  - E.g. of puzzlers: Candy Crush, Tetris
  - E.g. of party game: Mario Party
- Action-adventure
  - E.g. Horizon Zero Dawn

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How gambling shows up in video games

Chance based microtransactions

Loot boxes
- Found in many video games but most highly found in F2P (free to play) games

Simulated casinos & social casinos

Betting/wagering on items
- Example: skins, rare items, NFTs

PvP Betting/wagering
- Example: Tournaments
- Website for betting

Microtransactions and gambling disorder

- A systematic review published in 2022 examined all research on the correlation between video game microtransactions and gambling disorder

- Six studies investigated the relationship between microtransactions and both gaming and gambling disorder

- Microtransaction engagement was found to be associated with both gaming and gambling disorder

  - Engaging with loot boxes posed the highest risk for developing addiction

  - Greater severity of gambling disorder=higher engagement with microtransactions

- Microtransactions are designed with gambling-like features, especially loot boxes

- Other gambling-like practices are being intentionally developed/designed and placed in video games

Raneri, P. C., Montag, C., Rozgonjuk, D., Satel, J., & Pontes, H. M. (2022). The role of microtransactions in Internet Gaming Disorder and Gambling Disorder: A preregistered systematic review. *Addictive Behaviors Reports*, *15*, 100415.

Loot Boxes

- **An in-game purchase consisting of a virtual container that awards players with items and modifications based on chance or adjusted probabilities.**

- **Designed to provide repeated cycles of uncertainty, anticipation, and feedback**

- **Designed to be part of a compulsion loop of game design**

  - **Keep players coming back**
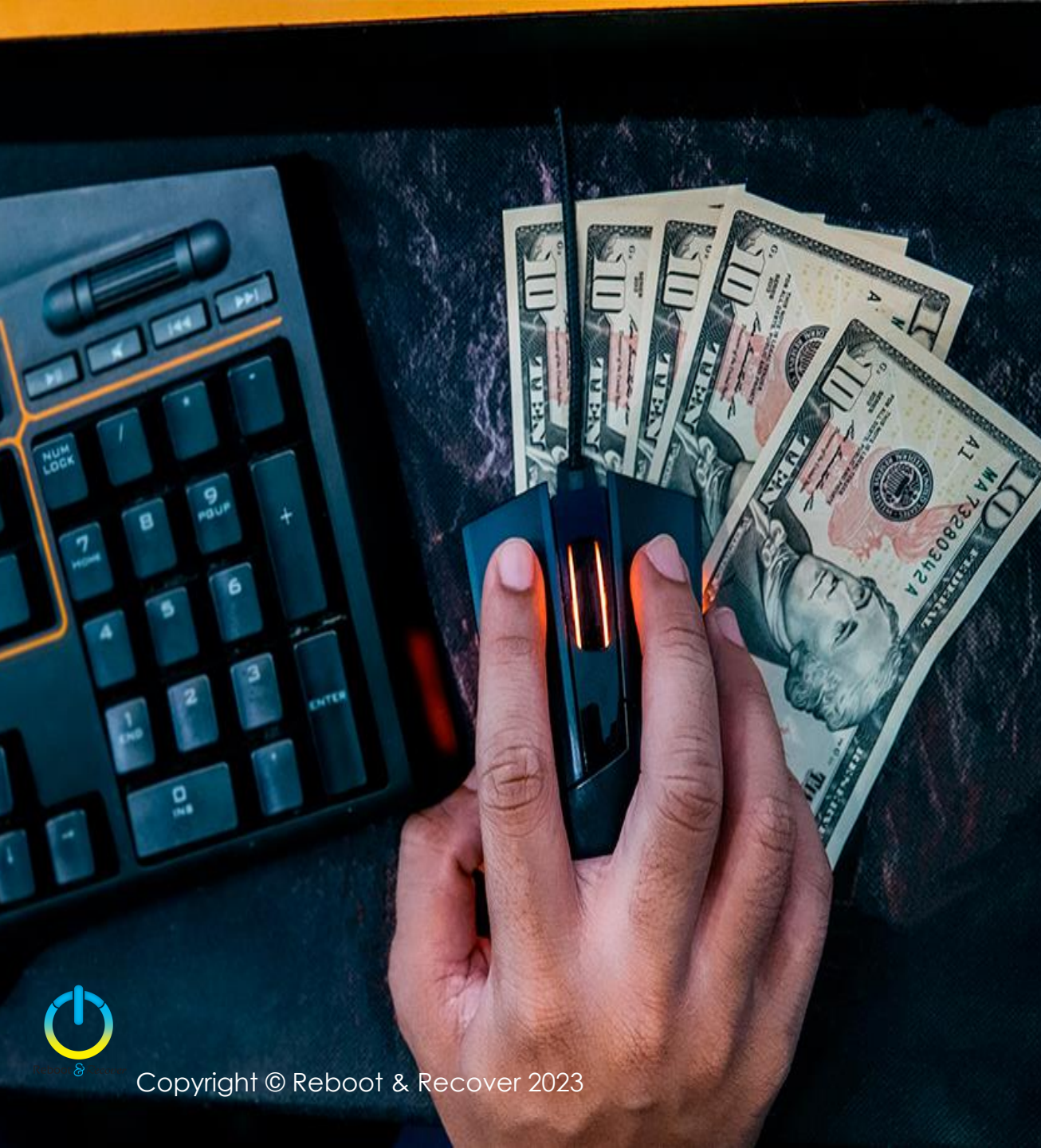
Betting/Wagering

- **Social casino games and simulated casino games**
  - **Can normalize gambling**
  - **Trigger gambling**
- **Cosmetic items betting**
  - **Skins**
- **Esports and gambling**
  - **PvP gambling**
  - **Esports**

Skills VS Luck

Video games include some skill based elements

The proportionate influence of skill and chance elements is what determines if it's gaming or gambling

Inclusion of converging gambling mechanics through the monetization of video gaming

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Monetization gaming/gambling mechanics & models

Free/earned currency of in-game value only
- Earned by progression

Free/earned currency that incentivizes play
- Points for gifts/currency/items

Optional purchases
- Skins, cosmetic items
- Points or currency to progress

Mandatory payment
- Entry fee or subscription price

Pay to Play (P2P or PtP)
- Genre of video game: MMORPGS

Free to Play (F2P or FtP)
- Genre of video game: MOBA

Pay to Win (P2W or PtW)
- Gamers known as 'Whales''

Play to earn
- Social casino games marketed as video games

NFTs & Cryptocurrency

Gambling in Gaming:
What to look out for

- Skills VS Luck
  - Games with skill
    - The focus is on using skill to advance
  - Games with luck
    - Based completely on chance if you advance or not
  - Games with both
    - Many games have both skill & chance components
  - Gaming= More skill than chance
  - Gambling= More luck/chance than skill

What are they playing?

(Entertainment Software Association, 2023)

The convergence of gaming & gambling: Statistics

- 45% of 11–16 year old youth were aware that it is possible to bet with in-game items
    - Almost 6 in 10 who identifies as males (59%) knew about this activity compared to less than a 1/3 of females (31%)
- 11% of 11–16 year old youth claimed to have personally bet with in-game items
    - The activity was more prevalent among males (20%) than female (3%) and among older respondents (those aged 14–16 years old)
- 31% of 11 to 16 year old youth spent their own money on gambling in games

- The common types of gambling activity that youth engage in:
    - 22% playing arcade gaming machines such as penny pusher or claw grab machines
    - 15% placing a bet for money between friends or family
    - 5% playing cards with friends or family for money

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The overall prevalence of engagement with loot boxes according to time frame, age group, and action taken (N = 16).

Time frames	n	Prevalence range				
		Open (%)	n	Purchase (%)	n	Sell (%)
Lifetime (n = 2)						
Adolescents	0	-		-		-
Adults	1	88.9^{1}–94.8^{1}	2	49.3^{1}–78^{1}	1	27.8^{1}–39.7^{1}
Past year (n = 9)						
Overall (mixed)	0	-	2	12.1^{2}–46.2^{3}	0	-
Adolescents	1	40.7^{1}–44.3^{1}	2	20^{1}–33.9^{1}	1	10.6^{1}
				17^{2}–24.9^{2}		
Adults	0	-	4	22.7^{1}–44.2^{1}	0	-
				7.8^{2}–9.8^{2}		
				66.1^{3}		
Monthly (n = 2)						
Adolescents	0	-	1	40.5^{1}	0	-
Adults	0	37.6^{1}	1	62.4^{1}	0	-

Note:

[1]Gamer sample;

[2]General population sample (gamers, non-gamers, gamblers, and non-gamblers);

[3]Gamer/gambler sample.

https://doi.org/10.1371/journal.pone.0263177.t002

Montiel I, Basterra-González A, Machimbarrena JM, Ortega-Barón J, González-Cabrera J (2022) Loot box engagement: A scoping review of primary studies on prevalence and association with problematic gaming and gambling. PLOS ONE 17(1): e0263177. https://doi.org/10.1371/journal.pone.0263177
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0263177

Convergence of Gaming & Gambling

It's in the Data

Top 3 mobile games all using gambling mechanics within their games

Social casino games

Often social casino video games are marketed as adventure games or another genre

It's all in the game

No regulations exist for video games/gaming regarding ratios of chance VS skill. And developers constantly vary their titles & genres to exploit this.

Gaming & Gambling Convergence

Free-to-play games (F2P)

Virtual currency/items

Loot boxes

Simulated casinos & social casinos

PvP & item betting and wagering

To summarize

- The intersection of gaming and gambling is growing, especially among the mobile gaming market

- With increasing monetization of video gaming and lack of regulation, consider what future implications this will have

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BUILIDNG EMPATHY: GAMING AND GAMBLING ADDICTION

Sharing lived experiences to help others

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Intersecting behavioral factors to consider

- Content viewed online impacts:
  - Attitudes
  - Beliefs
  - Knowledge
  - Behaviors

- Monetization of content impacts delivery, frequency, intensity, and duration

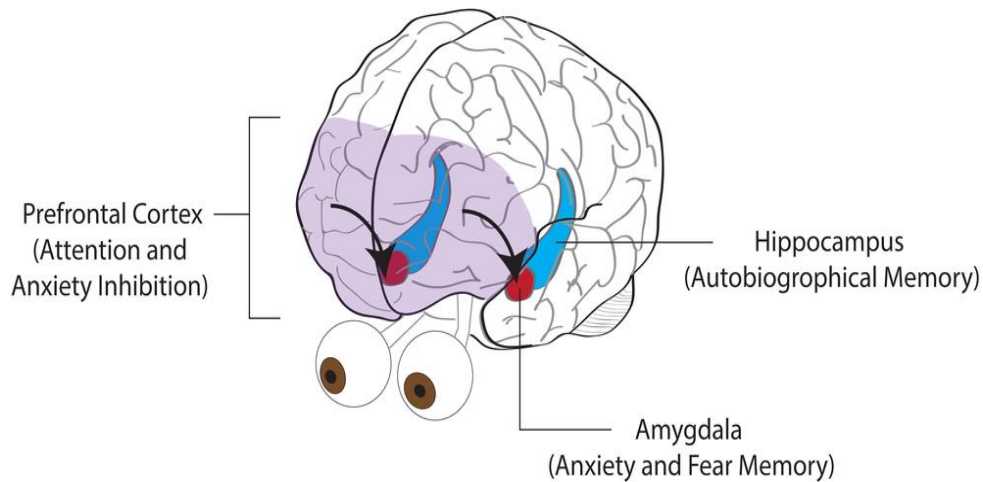- Intention is to keep individuals attention, regardless of impact

Content impact

Gaming

Internet

Designed to be persuasive

▶ Technology is designed in a way to keep us glued to our devices

  ▶ Motivation, ability, and triggers are used to design persuasive technology

  ▶ *Motivation* can be our desire for social connection

  ▶ Ability: Designed to easily do what the app wants you to

  ▶ *Triggers* are the prompting features, like notifications, that keep you coming back

    ▶ Thinks feedback loops or intermittent reinforcement using psychoanalysis

Prefrontal Cortex
(Attention and Anxiety Inhibition)

Hippocampus
(Autobiographical Memory)

Amygdala
(Anxiety and Fear Memory)

Using our amygdala responses for stimuli to keep us coming back because:	• Humans pay more attention to fearful, dangerous stimuli to stay safe • This can keep a persons attention
We seek out sweet and fatty foods for their readily available energy	• Can also provide emotional comfort and/or coping for some
We remember things that hurt us more than things that help us so we can predict future consequences	• Defense mechanisms protecting us from future incidents
We tend to follow the popular opinion of those around us to build stronger communities around shared ideas	• Safety in numbers and/or social desirability thru a sense of community

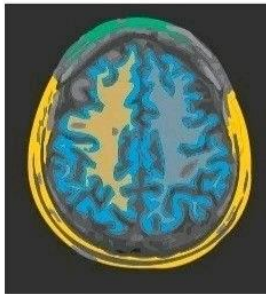# The neuropsychology behind persuasive tech

Why is it difficult to put down the devices?

- Social Learning Theory
- Neuroscience
- Communication can feel like connection
- Entertainment
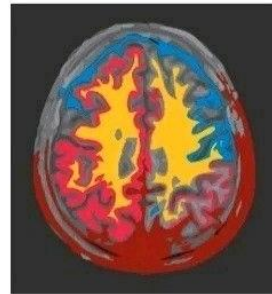- Distraction
- Notifications

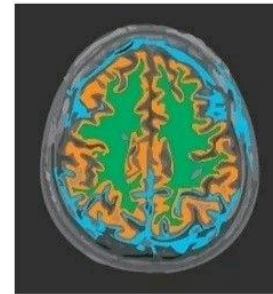# Invisible wounds:
Using a Trauma Informed Approach
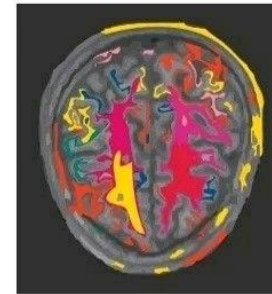
Tech is designed to keep us coming back

- ▶ Psychologically designed using behavior analysis

- ▶ Using targeted advertising/content

- ▶ Goal is to engage in continuous use

- ▶ Lack of policies/standards for safe design

- ▶ Lack of unbiased research on mental health harms

  - ▶ CAMRA Act

- ▶ Media's goal is monetary

What can we do?

▶ Prevention and support with:

   ▶ Meaningful conversations

      ▶ Go beyond psychoeducation

      ▶ Consider using a social emotional learning approach

   ▶ Importance of identifying the need that gaming fills

   ▶ Managing power balances

      ▶ E.g. Partner dynamics or parent-child dynamics

   ▶ Reduce pathologizing

   ▶ Limit setting unique to each client

      ▶ Resource: Make a Media Plan

         ▶ https://rebootandrecover.org/resources/

Direct interventions

- Limiting screen time
  - Unique to each client and family
- Not all content is equal
  - Media balanced diet
- Having the conversation early and often
  - At all levels of the behavior spectrum (i.e. leisure, risky, problematic)
- Instilling values and sharing thoughts
  - Unpacking and exploring intrinsic values
- Communication IRL vs communication online is different
  - Media literacy=Differences in tone, grammar, and understanding with texting VS online VS IRL
- Using tools often
  - Active listening, media plans, effective communication

Shifting perspectives

- Think of screen use like a diet
- Content viewed = nourishment for our minds
- Some content are fruit & veggies
- Some content are cake & fried good
- Find your balance content meal

Community Resources: Gaming

Online Gamers Anonymous
> olganon.org
> FREE Twelve step format support groups online and in person

Computer Gaming Addicts Anonymous
> https://cgaa.info/
> FREE support group meetings online and in person

Support for family and loved ones
> https://cgaa.info/info-for-family-members/
> https://www.olganon.org/home

Reboot & Recover
> FREE anonymous self-screening tools
> Prevention, education, supervision, consultation, & training services
> rebootandrecover.org/

International Gaming Disorder Certificate

- ► Best practices for clients

- ► Evidenced informed approaches

- ► https://www.igccb.org/

Thank You!

Questions? Let's connect!

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