



專注力促進會

ADHD FOUNDATION

www.adhd.hk

Facebook (home page)

Charitable Institution since 2006

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- Approved Charitable Donations under Registration number : 91/8261
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- 生效日期: 2006

Video Games Addiction & ADHD 打機遊戲上癮及專注失調症

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ADHD Foundation AGM

專注力促進會 年會

Virtual Babysitter 網上保姆

- 幼兒期：方便父母
- 到青少年期：孩子已經不是你的孩子
- At young age: Convenient to parents
- Adolescence: He/ she is no longer your child

結果：

- 如父母掉以輕心
- 電子產品會把你的孩子虜走
- 不少父母悔不當初

3 basic psychological Needs

打機滿足三個基本心理需要

- Self determination theory: **CAR**
 - **Competence** : in dealing with environment
 - **Autonomy** : control their lives
 - **Relatedness** : have a close, affectionate relationship with others
 - **Excessive use is harmful**
(Wu, 2013)
- 自決理論: 自我感覺良好 CAR
 - C= 解決問題的能力可逐步提昇及確認
 - A= 自己有操控權
 - R= 能在網上 自由地 交友分享
 - 玩機太多, 有害身心

玩者喜歡打機的原因

- Fun
- Fight boredom
- Challenged to figure things out
- Compete to win
- Social experience
- Offer adult experience of real world
- Instantaneous response
- 好玩
- 解悶
- 破解難題的樂趣
- 要贏
- 社交平台
- 可做一些在現實世界不容許做的成人才可做的事, 如駕駛
- 可即時得到反應

Benefits of VG 打機有助改善:

- Visual attention
(Stroud 2015)
 - Visuospatial skills
(Ballesteros 2015)
 - Hand-eye coordination
(Rosenberg 2015)
 - Multi-tasking
(Chiapper 2013)
 - Task-switching
(Strobach 2012)
 - Social experience
- 視覺專注力
 - 視覺空間技巧
 - 手眼協調
 - 兼顧多重任務的能力
 - 任務較易切換任務的能力
 - 網上社交分享

Myths 謬論

- “I catch up my sleep on weekends.”
- “I play video games to fall asleep.”
- 我在週末多睡一點，補償平日睡眠不足。
- 我必須打機才可入睡！

Internet Addiction Disorder 網癮症

- Gaming Online
- social networking
- Blogging
- Email
- Internet pornography
- use Internet shopping (shopping addiction)
- “Technology addiction”
- 上網遊戲
- 社交網
- 寫博客
- 網上社交
- 寫電郵
- 色情網站
- 網店
- 科技追求癮

Parents, listen!
父母們，請注意！

Good relationship with Parents:
The most protective factor against
adolescent PIU
跟父母的關係良好，對孩子抗打機癮
有保護作用

Bedroom VG

在睡房內打機 的後果

- Long time in play, stay up late in VG play
- Loss of sense of fatigue, hunger
- Isolated from the family
- Sleep deprivation
- Cannot get up next day
- Cannot focus in class
- 打機時間過長而不自知
- 不感到睡意, 口渴, 肚餓, 或大小便的意欲
- 與家人更疏離
- 睡眠不足
- 早上難以起牀
- 上課疲憊, 無心向學

VG play **within** 2-3 hours of bedtime
睡前兩三個小時之內打機

- Diminishes verbal memory for facts and performance the next day
- 翌日上課的 語言記憶 及 表現 會下降

Prolonged VG play

打機過多的後果

- Lower Grade Point Average
- Lower SAT scores
- But only ½ of families have rules about VG duration
- 成績下降
- 只有一半的家庭限制孩子打機的時間
- 新買的電子產品四個月後成績下降

Pros & Cons

Pros

- VG play < 1 hour/ day
- Daytime
- VG play not in bedroom
- Improve in visuospatial skills
- Improved attention in the game
- Supervision:
 - During game play
 - Where, with whom
 - When

Cons

- VG play \geq 1 hour/ day*
- VG within 2 hours bedtime*
- VG in Bedroom
- Content, online, console game
- Does not improve in overall attention span
- Unsupervised duration and which game
- Parents do not know the rating scheme (ESRB)

* Gaina *J Sleep Res* 2006; Oka *Behav Sleep Med* 2008; BaHammam *Singapore Med J* 2006; Dworak *Pediatrics* 2007

父母買電子產品回家前 要三思

- 買何種電子產品: iphone, ipad, desk top, lap top
- 用途
- 誰可以用
- 何時准許用: 不可在睡前兩小時之內打機
- 不准在睡房使用
- 把自己的信用咭收好
- 孩子玩的電腦遊戲, 父母必須先看年齡指引

Parent power

- Set rules based on **age of child**
- **Think carefully before** you buy any electronic device: mobile phones, ipad, iphone, lap tops, desk-tops, etc.
- **Plan and set limits** before buying such device
- Keep your **credit card** in a safe place
- **Monitor closely**: your credit card expenditure, the child's online time, VG play time

VG & Quality of Life

打機時間和 生活質素 的關係

- VG play: < 1 hour/ day better than none
- Both better than VG > 3 hours / day
- Better in psychosocial adjustment
- 每日打機的時間直接影響生活質素:
- 最佳效果: < 1 小時
- 中性: 完全沒有打機
- 最差: 每日打機 > 3 小時

Recommendations 重點建議

- **Who:** ADHD and ASD at much higher risk of VG addiction
- **Where:** Move VG out of bedrooms
- **When:** daytime, have an electronic curfew
- **How long:** set play sessions of 30-45 minutes
- **With whom:** Parent to play with your child; encourage playing with peers off line (not on line)
- **What:** to know ESRB rating
- 誰較高危: 專注力失調過動症或自閉傾向人士
- 何處: 勿在睡房內
- 何時: 日間, 勿在睡前兩小時
- 玩機時限: 30-45 分鐘
- 跟誰玩: 父母, 朋友到訪
- 玩什麼遊戲: 根據 ESRB 的家長指引

ESRB: Rating Symbols & Content Descriptors

- The Entertainment Software Rating Board assigns age and content ratings for video games
- EC= Early Childhood (3+)
- E = Everyone (6+)
- T = Teen (13+)
- M = Mature (17+)
- AO= Adults only
- RP = Rating Pending

ECRB 娛樂軟件評級委員會
作出以下的家長指引

- EC= 三歲以上的幼童
- E= 六歲以上的兒童
- T= 十三歲以上的少年
- M= 十八歲以上的青年
- AO= 只適宜成人
- RP= 在評分中

ESRB Rating Symbols: Quiz



在評分中



只適宜成人



十八歲以上的青年



十三歲以上的少年

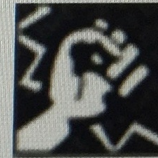
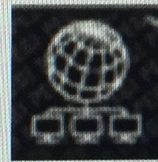
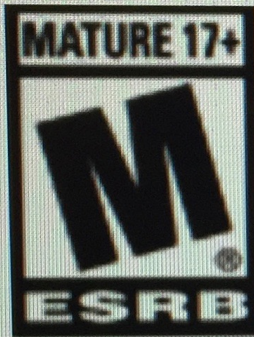


六歲以上的兒童



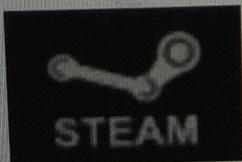
三歲以上的幼童

Age and content rating

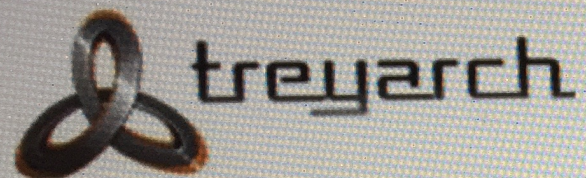


Other

Steam



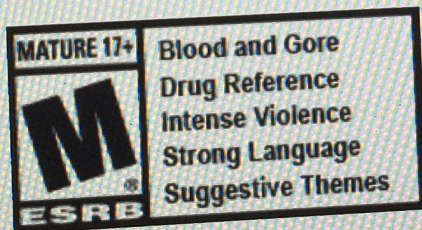
Steam - Game can be activated on Steam, enables you to play on official Steam servers and your game will be kept updated with the latest patches via the Steam platform.



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ESRB Content Descriptors

ESRB 內容描述

Mild to strong degrees

- Alcohol Reference
- Blood
- Violence
- Gambling
- Mature Sex Themes
- Nudity
- Sexual Violence
- Use of Drugs...

請注意描述程度：輕或重

- 酗酒
- 血腥
- 暴力
- 賭
- 成人的性課題
- 裸露
- 性暴力
- 濫藥...



Product Description

The bloodiest fighter franchise of all platforms is back. **Mortal Kombat X** is the sequel to the critically acclaimed Mortal Kombat 9, upon which it improves in every way, from new, juicy Fatalities to the combat system and revamped characters. Join the struggle for control over the Earthrealm and FINISH THEM!

Premium Edition

The **Mortal Kombat X Premium Edition** includes:

- Mortal Kombat X (base game)
- **Kombat Pack DLC** - featuring guest starring Friday the 13th's Jason Vorhees, and Predator- the universe's prime hunter. It also brings back two old characters, the earth-commanding Tremor and pyrokinetic Tanya.

Tug of War 拔河比賽

打機 ←-----→ 學習

Video games ←-----→ Study

Parents' Mediation 父母調解模式

Active mediation

主動性調解

- Positive feelings
關係正面
- More agreement
容易達成協議
- Desensitization
- 已進入青春期的或接近成年較適用

Restrictive mediation

限制性調解

- Negative feelings with parents
關係負面
- Less agreement
不易達成協議
- Forbidden fruit effect
禁果效應
- For pre-adolescents
青春前期兒童才可使用

Games to treat ADHD/ VG Addiction?

有沒有一些治療性的遊戲軟件？

- Little or **no generalization to natural settings** or to working memory

- Reference: **Meta-analysis** of the available studies up through 2013 by **Mark Rapport**, Ph.D. and colleagues

<http://www.sciencedirect.com/.../article/pii/S0272735813001219>

- 沒有
- 多項研究報告的元分析總結: **無法証明**此類遊戲能
 - 改善工作記憶, 或
 - 執行功能

父母共同 訂的規則

1. 睡房內不可設置電腦或用其他方法玩上網遊戲，這會延長打機時間及導致睡眠不足;
 2. 睡前兩小時不可玩電腦遊戲，這會妨礙日間對語言及其他的學習;
 3. 打機時限 在卅至四十五分鐘內，可能有助小孩的成長。但如超過一時，反而有害。
 4. 父母對孩子打機要嚴格執行規限
- 如果給孩子買了電子產品，不懂設限的話，孩子的學業在四個月內大多數會下滑。

Summary: ADHD & VG Play

總結：專注力失調者和上網打機

VG play in ADHD kids is much worse if:

- Young age, boy, ADHD, ASD
- Duration of VG play > 1 hour
- Console VG or Internet VG or TV watching
- VG play within 2 hours of Bedtime

Higher risk of:

- Addiction
- Attention much worse

上網打機程度較嚴重:

- 年紀較輕, 男生, 有專注問題或自閉傾向者
- 每天打機達一小時或以上
- 遊戲類別: 網上或互動的
- 在睡前兩小時打機

後果:

- 網癮機會很大;
- 學習和一般生活上的專注力下降

Face the Facts
面對現實吧

Prevalence 網癮症 發生率

- USA 美國 3 to 9% (Gentile 2009, Desai 2010, Eichenbaum 2015)
- S Korea 南韓 8% (Government survey 2010)
- Taiwan 台灣 8% (Ko 2007)
- Australia 澳洲 8% (Porter 2010)
- Singapore 星加坡 8.7% (Gentile 2011)
- China 中國 10.0% (Peng 2009)
- Hong Kong 香港 15.7% (Wang 2014)

Comorbidities 常見共患

- **ADHD**

(Weiss 2011, Weinstein 2012, Mazurek 2013, Strittmatter 2015, Adnreassen 2016 & Yen 2016)

- **ASD** (Baer 2012)

- **Disruptive Behavior Disorders**

(Desai 2010, Muller 2014 & Lehenbauer – Baum 2015)

- **Depression & Anxiety Disorders**

(Wei 2012, Kign 2013, Lehenbauer-Baum 2015, Kim 2016, & King 2016)

- **Personality :**

- Low concientiousness,
- High neuroticism
- Low extraversion

(Meroof 2010, Muller 2015, Want 2015 & Wittek 2016)

- 專注力失調/過動症

- 自閉症光譜

- 破壞性行為障礙

- 憂鬱症, 焦慮症

- 人格障礙 (內向, 神經質)

形勢不妙

- 74% mothers with kids at home (ESA, 2014)
 - 74% of Video games players are adults, average age 35 (ESA, 2015)
 - 43% doctors play VG at work (YouGov, 2015)
 - 1-4% children develop Internet Gaming Disorder
- 74% 的母親在家也打遊戲
 - 74% 玩電子遊戲者均為成年人，平均年齡卅五歲
 - 43% 醫生在工作時間也會打機
 - 1-4% 兒童染上 網癮症

Genetic markers 遺傳標記

- **Taq1A1** allele associated with:
 - Reduced DRD2 density
 - Suppressed dopaminergic signaling in **caudate nucleus, thalamus and hippocampus**
 - Susceptibility to impulsive-addictive-compulsive behavior
- Taq1A1 等位基因:
 - 減少多巴胺受體 (#2)
 - 在腦內有關部位抑制多巴胺的訊號接收
 - 容易導致 衝動-上癮-強迫性行為

Pohjalainen *Mol Psychiatry* 1998; Yasuno *Am J Psychiatry* 2004; Denys *Biol Psychiatry* 2004; Blum *Pharmacogenetics* 1995

Cases in the news

- A couple in South Korea who left their 4 months old daughter at home unattended, who died of suffocation
- They left her alone for several hours playing World of Warcraft at a nearby Internet café (GameSpot, 2005)

- Reno, Nevada: a couple left their babies starving and suffering from health problems
- Michael and Lana Straw: a 22 months old boy and an 11 month old girl: severely malnourished and near death when doctors saw them after social workers took them to a hospital
- Their parents were sentenced to 12 year prison

Brief History of VG Development

電腦遊戲的發展簡史

1997 Tamagotchi (The Lovable Egg) Virtual Pet Game 養電子寵物



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2012- Present :

- Eighth Generation Consoles
 - Nintendo 3DS
 - Microsoft's Xbox
 - Sony's PlayStation 4
 - PlayStation Vita

2012 年至今：

- 互動遊戲第八代：
 - 任天堂 3Ds
 - 微軟盒 X Box
 - 索尼的PS4
 - PS-Vita

Pac Man 1980

< 吃豆人 > 1980

Japan 5/1980 → US
10/1980

Popular culture

Pac Man derivatives:

- Pac Man animated TV series
- Pac Man Fever

Landmark

日本 → 美國

流行文化

吃豆人衍生 →

- 吃豆人卡通
- 吃豆人熱潮

> 吃豆人 > 成為遊戲機的
里程碑

Super Mario 超級馬里奧



怪物彈珠

- 官方網站.可以養育屬於自己的怪物
- 用自己的手指推拉,就能打到怪物 的新動作RPG！
- 用自己喜歡的怪物組成隊伍,並用手指推拉進行狩獵！
- 多人遊玩模式
- “有事沒事都要玩！站著玩、坐著玩、躺著都可以玩！”

US Top selling games of 2015

1. **Mortal Kombat X (brutal, bloody)**
2. Grand Theft Auto V (in older installment: sex, nude)
3. Battlefield Hardline
4. **Call of Duty: Advanced Warfare** (modern military, with shooting, mostly instantaneous death), with reward if more are killed without dying
5. Minecraft (too far from reality, one can exert creativity), could be acceptably violent
6. **Batman: Arkham Knight**

7. Dying Light (Zombie Apocalypse)

8. NBA 2K15 (sports game)

9. The Witcher 3: Wild Hunt (no multiplayer functionality)

10. Super Smash Bros (Nintendo game far from reality)

11. World of Warcraft (RPG, violent)

12. League of Legends (LoL)

Console game

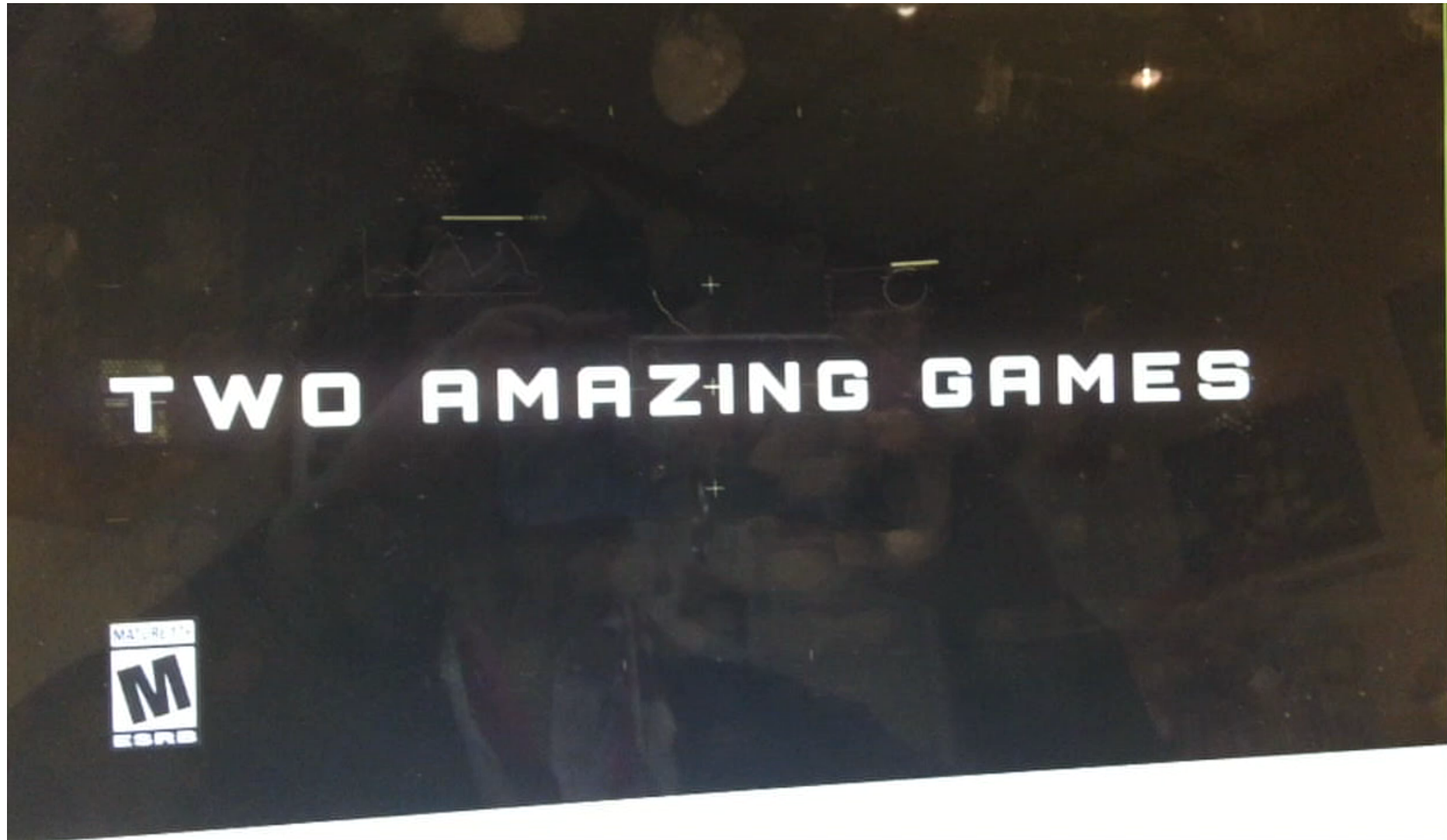
互動遊戲

- A form of interactive multimedia used for entertainment.
- 一種 互動的，多媒體的娛樂

Call of Duty 使命召唤

- A first-person shooter video game franchise
- **Infinite Warfare** was released on November 4, 2016
- 第一身射擊
- 视频游戏的特许经营
- 《無限战争》於2016年11月4日面世

Call of Duty 使命召唤



MMORPG

- In spending more time in the game, MMORPG characters can grow indefinitely, becoming stronger, smarter, more powerful over time
(Kelly, 2004)
- 大型多人網上角色扮演遊戲中的人物，如玩者花很多時間玩，其代表的角色會無限地越戰越強，越戰越聰明，能力亦越高

MMORPG: Very Addictive

- Massive Multi-User Online Role-Playing Games

大型多人網上角色扮演遊戲

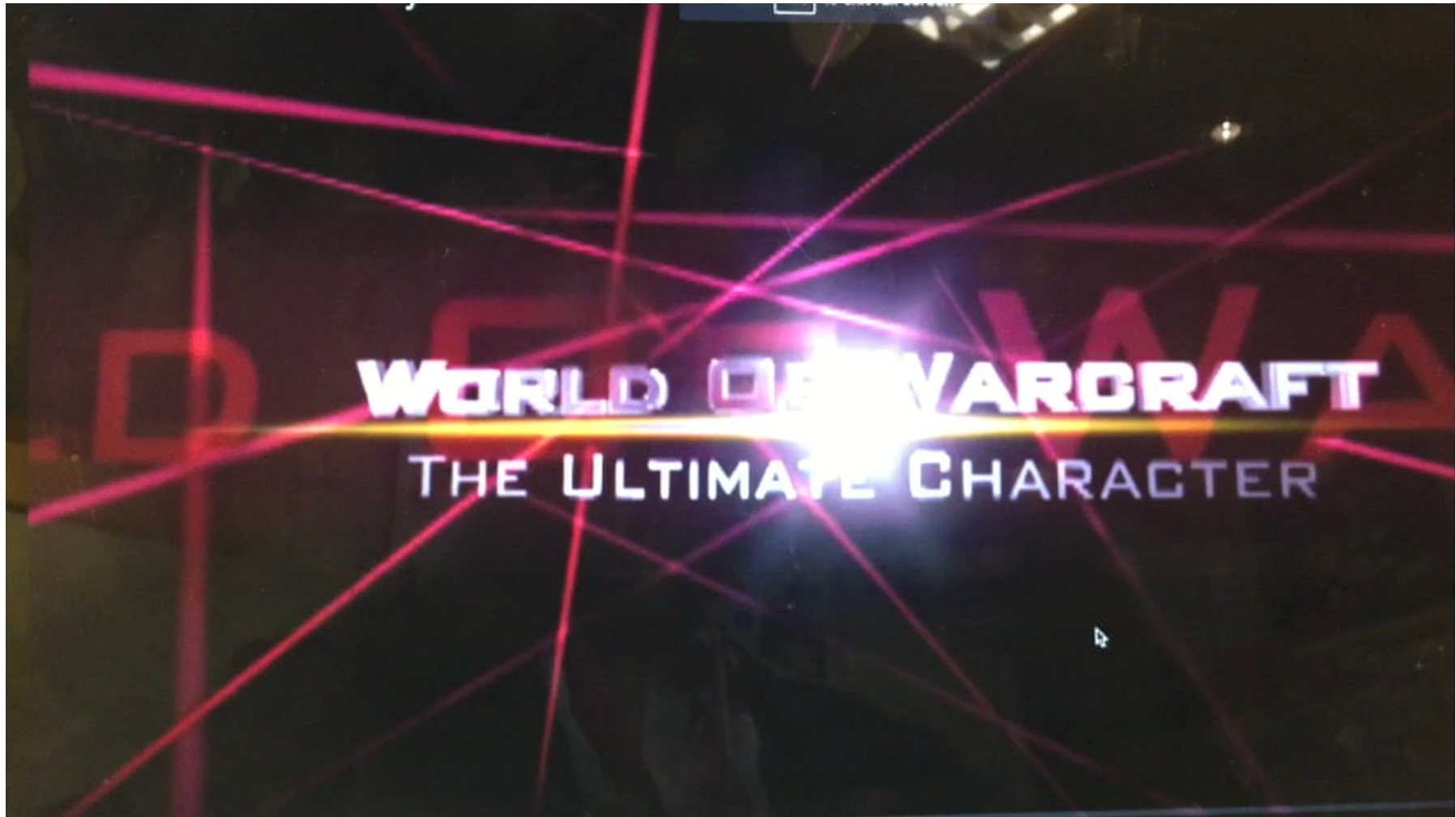
- World of Warcraft

World of Warcraft

魔獸世界 WoW

- MMORPG: **massively multiplayer online role-playing game**
 - Released in 2004
 - WoW the **world's most-subscribed MMORPG**
 - 2014: >100 million accounts created
 - **Guinness World Record:** the most popular MMORPG
 - 大型多人網上角色扮演遊戲
 - 2004 年面世
 - **全球最熱賣**
 - 2014 年銷售量超過一百萬
- 健力士世界紀錄: 最熱賣的
< 大型多人網上角色扮演遊戲 > (MMORPG)

World of Warcraft 魔獸世界



MOBA: Very Addictive

多人網上戰鬥競技場

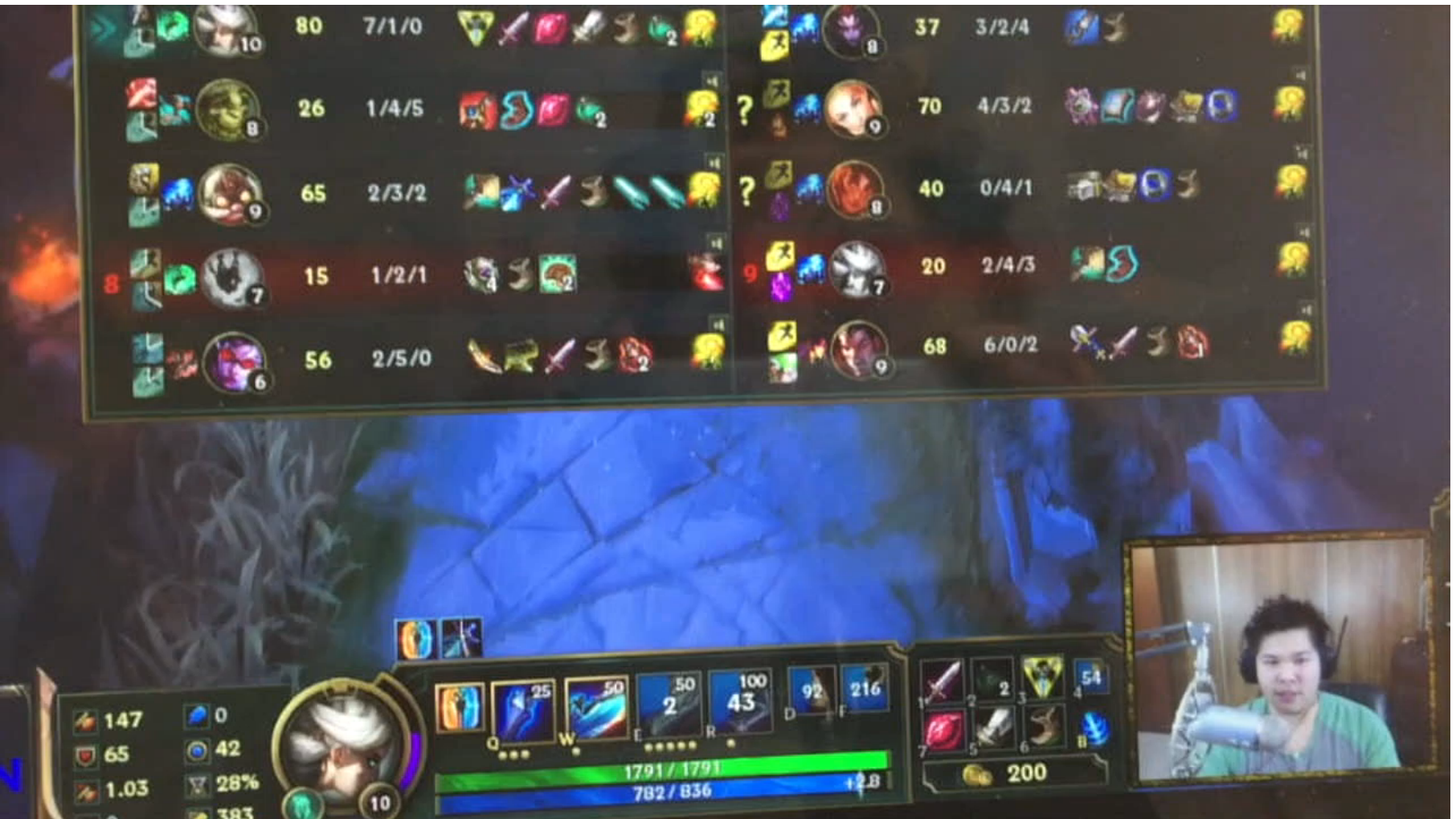
- MOBA = multiplayer online battle arena
- League of Legends (LoL):*
- Players assume the role of an unseen “summoner” that controls a “champion”
- 多人網上戰鬥競技場
- 英雄聯盟 (LoL)
- 玩者的角色是隱形的召喚者, 能召喚及控制一名技術高超的戰士

MOBA: Very Addictive

多人網上戰鬥競技場

- With unique abilities and battle against a team of other players or computer-controlled champions
- To destroy the opposing team's "nexus", a structure which lies at the heart of a base protected by defensive structures
- 該戰士跟其他受控制的戰士對決
- 目的要摧毀敵方的堡壘

League of Legends 英雄聯盟



League of Legends : Ranking

英雄聯盟：級數

- Brass, Silver, Gold, Platinum, Diamond, Master, Challenger (World champion)
- The ranking is a personal record, being revered by others
- 銅, 銀, 金, 白金, 盟主, 挑戰者 (世界級)
- 每名參加者均有級數的紀錄, 高級數者會被同輩尊崇

League of Legends 英雄聯盟

- Automated match-makers
- Punishment: one you suddenly leave the game (your parent turns off the online router), you would be sanctioned by the system
- 系統會自動安排能力相若的玩家，組成能力相若的‘英雄聯盟’
- 懲罰：如其中一人在‘戰事’中離場(例如：父母突然關掉上網功能)，系統會發出警告，如再犯便會出局，對玩者來說，猶如身敗名裂，永不超生

League of Legends 英雄聯盟

- **Regional competitions** culminate with the annual World Championship
- Winners receive **trophies (the Summoner's Cup**, made by silversmith, Thomas Lyte)
- 區域性比賽：多個國家舉行
- 勝利者可獲得著名銀匠 Thomas Lyte 精製的紀念品：< 召喚者銀製獎杯 >

League of Legends 英雄聯盟

- 2016 **World Championship:**
 - The winner of the tournament:
 - > **USD 2 million**
 - Total prize pool:
 - > 5 million dollars
- 2016 <英雄聯盟> 世界錦標賽冠軍可獲二百萬美元
 - 所有獎項共值五百萬美元

Mobile Phones 手機上網打機

- 隨時隨地可上網打機：
 - 牀上
 - 坐地鐵, 坐車, 走路, 在課室內, 在用餐時
- 每天24 小時/ 每週7天

Internet Addiction Disorder 網癮症

“Just a few more minutes”
may turn into hours
讓我再打多幾分鐘…
結果打了數小時！

Internet Gaming Disorder (IGD)

網癮症

- Excessive use
 - With impairment
 - Plus 5 of the following:
 1. Pre-occupation
 2. Use to alleviate negative mood
 3. Withdrawal
 4. Need more and more time playing
- 過多
 - 有功能失調
 - 再加下面的五條
 1. 整天想着要上網
 2. 為了減少不好的情緒而上網
 3. 如果沒有上網, 混身不舒服
 4. 需要上網的時間越來越多

Internet Gaming Disorder (IGD)

網癮症

- | | |
|---|-----------------------|
| 5. Loss of previous interest | 5. 失去本來有的興趣 |
| 6. Unable to cut down | 6. 沒法減少用量 |
| 7. Continues despite problems | 7. 俾管問題的出現，也要繼續打機 |
| 8. Threatens study, job, relationship | 8. 儘管在工作，學習，關係已經出現大問題 |
| 9. Lies about playing VG, stealing, truancy | 9. 為了打機，不惜說謊，偷錢，逃學 |

Risk factors & Prognosis

風險因素及癒後

- Male, more time gaming, poor social skills, poor emotional regulation (Gentile 2011)

男性，花過多時間上網，
社交能力薄弱，情緒不易
受控

- Outcomes:
 - Depression
 - Social anxiety
 - Poor school performance.

結果容易導致：

- 憂鬱症
- 社交焦慮
- 學業及事業失利

Brain changes in VG Addiction

網癮症患者的腦部變化

網癮症患者與病態賭徒 的腦部變化相似

- Higher left ventral striatum volume (i.e. play > 9 hour per week, or 1.2 hour per day on average)
- = Enhanced DA release
- Similar enhancement in excessive gambling
- 網癮症的左腹側紋狀體體積增大
- 多巴胺分泌的增加
- 與病態賭徒腦部的變化相似

Kuhn. Transl Psychiatry. 2011

Impairment of orbitofrontal cortex (OFC)

眶額葉皮質缺損

- Reduce in OFC thickness

眶額葉皮質偏薄

(Dong 2012, Han 2012, Lin 2012, Hong 2013, Weng 2013, Yuan 2013 & Wang 2015)

Impairment of orbitofrontal cortex (OFC)

眶額葉皮質缺損

- Impairs ability in planning, prioritizing, paying attention to and remembering details, and controlling our emotion
- Less able in setting goals and accomplishing
- 執行能力減弱，輕重不分，忽略細節，難控制情緒
- 難以訂立目標 或 成功達到目標

Biologic correlates

- **Drug addicts:** abnormal brain structures and function
- **VG addicts:** similar abnormalities in 29 studies (Weinstein 2015)
- 29個 腦掃描 研究報告發現:
- 濫藥者 跟 網癮者的腦部發展很相似

Addictability

成癮性須具備以下兩個條件：

- | | |
|-----------------------------|---------------|
| 1. Fast onset of reward | 1. 很快已感到興奮 |
| 2. Short duration of reward | 2. 興奮的感覺很快便消失 |

Definition of Addiction

成癮的定義

1. Craving

1. 難以抑制的渴求

2. Tolerance

2. 對藥物/活動的耐
受性

Dopamine 多巴胺

Stimulants causes
dopamine release spike in

- **Striatum** and
- **Nucleus Accumbens**, i.e.
pleasure center

- **Drug addicts** : decreased
sensitivity of
dopaminergic reward
systems
- **VG** cause same process |

刺激劑 (興奮劑): 在以腦部
區域增加 **多巴胺** 分泌

- (紋狀體)
- (伏隔核): 快樂中心

癮君子: 對 **多巴胺** 快感中
心的反應 **較遲鈍**

網癮患者的腦細胞部反應
與 **癮君子** **相似**

Why VG is so Addictive?

為何打機很易上癮？

- **Variable-Ratio Schedule: Most addictive**
- Different schedules are based on reinforcing the behavior as a function of
 - **Number of responses** that have occurred
 - **Length of time** since the last reinforcer was available
- **可變比例計劃** 是操作條件反射的一種, **上癮的機會最高**
- 獎賞 在不可預測的情況下出現:
 - 玩機的時間長短
 - 獎賞的大小
- 使玩者一直地玩機, 費盡思量和體力
- 一旦贏了便覺得自己很棒

Operant Conditioning

操作條件反射

- **A variable-ratio schedule** is a schedule of reinforcement where a response is reinforced after an **unpredictable number of responses**
- This leads to a **steady, high rate of responding**
- <可變比例計劃> 使玩者不停地打機
- 獎賞 在不可預測的情況下出現
- 打得越多，得分越高
- 玩者自覺過癮
- 覺得頭上有了光環，讓網友給他很多 <贊>

Hard to be de-toxed 極難戒癮

- Variable interval and variable ratio **most resistant to extinction** with variable ratio being the best
- You never know when the next reinforcement is going to come)
- Gradual increase of the ratio or interval you can make the behavior even more resistant to extinction
- 網上遊戲的設計，基於<可變比例計劃>，使玩者期待隨時得分，因而持續地玩下去，難以停止
- 結果玩者自投羅網而不自知，任何人勸阻 均成他們的敵人

Addictability of Games

易成癮的遊戲

- Computer & Console games
- RPG (Role Playing Games) shooter, (Smythe 2007, Kin 2010, Elliot 2012, & Eichenbaum 2015)
- MMOB (multiplayer online battle arena) (LoL: League of Legends)
- MMORPG (Massive Multi-User Online Role-Playing Games) (WoW: World of Warcraft)
- 電腦及控制台互動遊戲
- RPG: 角色扮演遊戲
- MMOB: 多人網上戰鬥競技場 (LoL: 英雄聯盟))
- MMORPG: 大型多人網上角色扮演遊戲 (WoW: 魔獸世界)

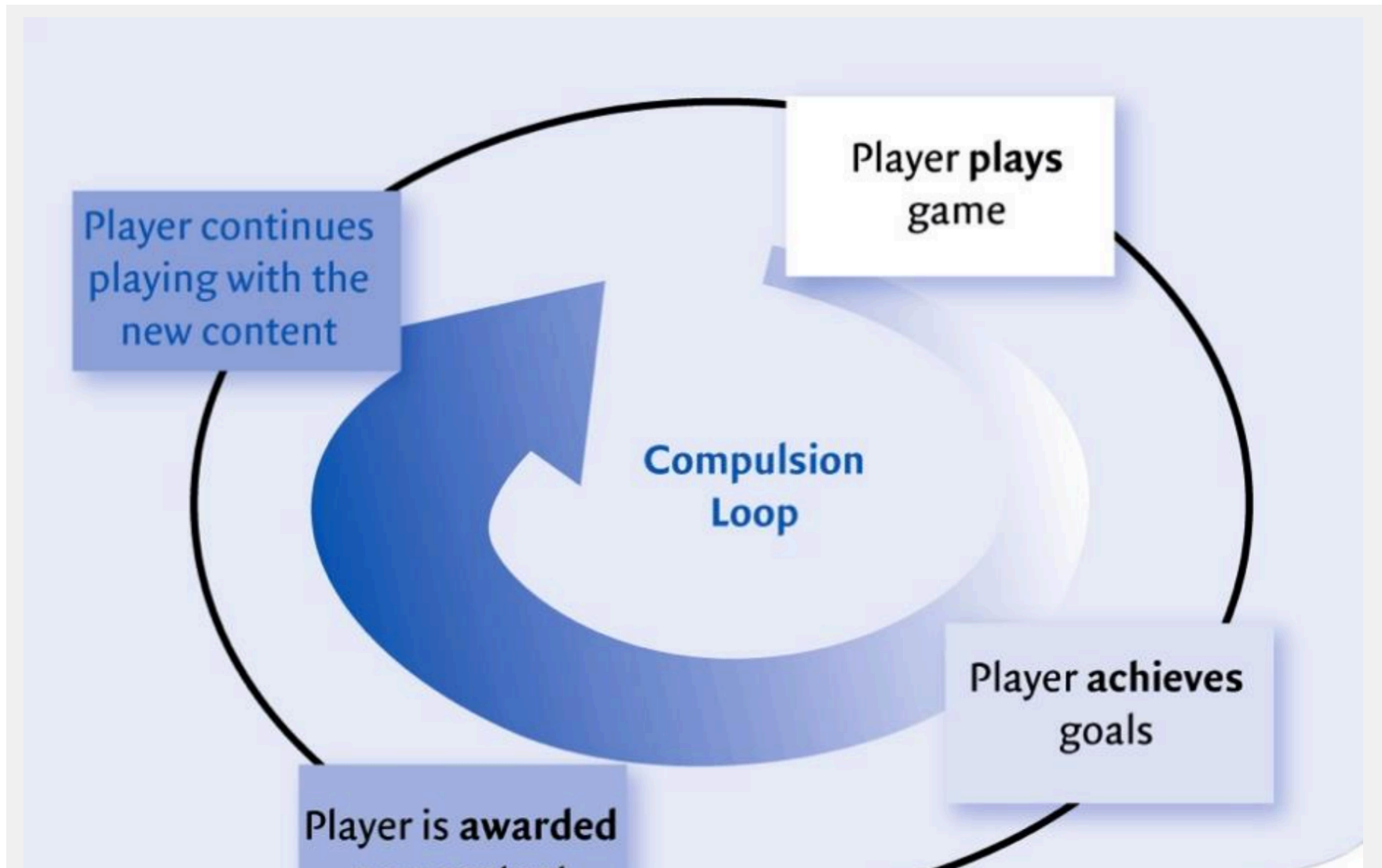
未來 更易成癮的遊戲

Upcoming Games:

even more addictive-> Delusion prone

- Mobile phone Apps
- Games with Virtual Reality → Delusion prone
- 手機下載的遊戲
- 虛擬現實的遊戲 → 易生妄想症

強制循環



Dying to play
Playing to die

Pulmonary embolism

Playing to kill Killing to play

8 youth murdered by parents in response to
VG restriction

8 infants died of neglect while parents
playing VG

11 infants murdered by parents for
interrupting VG play

Evaluation and Tx

評估及治理

Psychiatric Evaluation

精神科的評估

- Screen time
 - Content
 - House rules
 - In bedroom?
 - Supervision
 - Conflict
- 上網花了多少時間
 - 何時上網
 - 什麼遊戲, 故事內容
 - 有沒有家規
 - 在睡房嗎?
 - 父母有規管嗎?
 - 跟父母或家人會議因上網或打機而引起衝突嗎?

Management 治理

- Modeled on substance abuse treatment
- Group and family therapy
- CBT & Motivational interviewing
- Decrease VG time
- 治療模式: 如戒癮療法
- 群組治療 及 家庭治療
- 思想行為 治療
- 以誘發 動機 使 網癮者 主動 參與 療程
- 縮短打機上網的時間

MPH is one of medical options 利他林-- 治療藥物的一項選擇

- n=62 children with ADHD
- 8 weeks MPH
- Decreased VG play and addiction (Chan 2009)
- Changes correlated with ADHD effect
- 62 名 專注失調及過動兒童
- 服用八個星期的利他林後
- 專注失調及過動症狀有改進 (Chan 2009)
- 打機癮也減少

Specialized treatment facilities

專科治療機構

- **Outpatient:** Center for Internet & Technology Addiction, Hartford
- **Inpatient:** Internet Addiction Inpatient Program at Bradford Regional Medical Center, Pennsylvania
- **Residential:** ReStart, Seattle
- **Wilderness:** Video Game & Internet Addiction Treatment Program, Utah

- 門診

- 住院

- 戒癮治療營

| | | Internet 上網 | | TV 看電視 | | Console VG 互動遊戲 | | Internet VG 網上遊戲 | |
|--|-------------|----------------|--------|-----------|--------|-----------------------|---------------------------|------------------------|---------------------------|
| | | <1 hr | ≥1 hr | <1 hr | ≥1 hr | <1 hr | ≥1 hr | <1 hr | ≥1 hr |
| Young's addiction scale Young的 成癮量表 | Mean | 12.80 | 14.50 | 9.70 | 16.00 | 10.10 | 34.30 | 10.20 | 38.60 |
| | SD ± | ±11.00 | ±16.40 | ±14.60 | ±13.80 | ±10.70 | ±14.80 (19.5- 49.1) | ±10.40 | ±13.40 (25.2 – 52) |
| | P- value | 0.804 | | 0.040 | | <0.001 | | <0.001 | |
| Connor's scale: Inattention Connor 的 專注力缺 乏量表 | Mean | 1.29 | 1.68 | 1.72 | 1.40 | 1.00 | 4.36 | 1.16 | 4.00 |
| | SD ± | ±2.67 | ±2.51 | ±2.62 | ±2.57 | ±1.60 | ±4.59 (-0.23- 8.95) | ±2.25 | ±3.39 (0.61 – 7.39) |
| | P- value | 0.289 | | 0.311 | | 0.001 | | <0.001 | |
| Chan & Rabinowitz Ann Gen Psychiatry 2006 | | | | | | | | | |

VG games in ADHD reduce 打遊戲機 有助 專注力失調過動症者

- Oppositional behaviors
- Hyperactivity behaviors
- 對立反抗行為
- 過度活躍的行為

Warnings 警告

- **Death** could be due to pulmonary embolism
- **Seizures (light flashes)**
- **Social problems (virtual)**
- **School problems**
- 突然死亡(肺血管栓塞導致)
- 癲癇 (螢光幕的閃光)
- 網上交友
- 學業及操行問題

Warnings 警告

Behavioral problems:

- Stealing, truancy, lying, irritability, impulsivity, anger outbursts

Mood problems

**Low self esteem,
sense of isolation**

行為問題:

- 偷竊，逃學，說謊，易怒，衝動，憤怒爆發

情緒問題

自卑，感到孤立無援

Thank You

www.adhd.hk