

Video games: more popular, more addictive?
*An Investigation of the impact of eSport democratization, game
design choices and structured business models on Problem Video
Playing (PVP)*

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Abstract

‘Video games are bad for you? That's what they said about rock n' roll.’

(Shigeru Miyamoto – world famous game designer & producer at Nintendo)

Video game addiction has been studied since it has created a real subculture in the late 80's. However, video games have grown and invaded almost every household nowadays; its influences are bigger and touch everybody's daily life. They have become so important that a new practice has been created the last few years: eSport. Thus research has been limited to video games in general and did not focus on this new trend that is the electronic sport competition on video game addiction.

This dissertation explore the impact of eSport competition on problem video game playing (PVP) related to emerging business models and game design choices as marketing strategies.

The research methodology undertaken is qualitative in nature and uses in-depth interviewees to gather rich-based data in order to provide the researcher a way to ‘dive’ into this new phenomenon to get a clear understanding of its impact. The purpose of this dissertation is to build new solid foundations and become a future reference point for academics and practitioners in the video game industry.

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1. Introduction

This dissertation untitled “Video Games: more popular, more addictive? – An Investigation of the impact of eSport democratization, game design choices and structured business models on Problem Video Playing (PVP)” would defined if video games have become more addictive by studying two areas: the e-sport practice that is being democratized for the last couple of years and nowadays new business models that video game companies set up.

1.1. Research question

I elaborated my research question as: *“Since video games have become popular: What are the influences of the e-sport practice’s democratization and how do they impact on video game addiction?”*

Companies’ trends are to create video games that can be played by a large amount of players at once and that players even need to interact with others to enjoy the whole content of the experience: some of them are created to become an eSport video game and this involves a specific business model.

1.2. Purposes

The purposes of this research are to define if:

- More people are touched by the phenomenon of video game addiction and whom, how does it impact players’ behavior and finally see make them addictive.
- The eSport practice democratization has a negative or positive impact on video game playing (increase or decrease addiction tendency) and if people are aware of this practice and are part of it.
- Finally to describe video game companies’ new business models that can influence the way people play, the impact of the behavior toward games and if it is ethical to create something on the purpose of making people addicted.

There is a Gantt chart attached in appendix to describe the process I followed and how long it took me to achieve this project.

1.3. Justifications for Research

Even if video game addiction has been studied from every conceivable angle, the emergence of eSport creates a new unexplored area. There are only a few academic writings on eSport, and not a single one has an addiction approach to it. It defines my first reason for writing this dissertation. It includes a point of view that previous researches did not: the impact of a new practice and how the video games themselves are developed to influence this addiction.

Video games have become so popular that mostly every household has a console or a computer where the family plays on (e.g. Nintendo Wii helped a lot with its interactive and family-type video games). Plus, since the video game industry has become so important for the last couple of years, developing a product that customers will consume without being able to stop is an opportunity that companies cannot ignore. Nowadays, the video game industry has become so important that it exceeded \$76 billion dollars in 2013 with a 9% growth from 2012, according to Business Insights. This industry is larger than the music (\$16.5 billion in 2012) and movie industry (\$34.7 billion in 2012) combined. This is why focusing on this industry's new trends turns out to be significant.

Finally, it is important to explore this subject because it concerns people's health due to addictive tendencies to consume video games. When a topic involves jeopardizing people's life and might be a threat to their health, the seriousness of it makes it an unavoidable topic to cover. I grew up with this culture of playing, and since it never went off. My little brother is facing PvP (Problem video game Playing) and as a witness of his addiction I have a good understanding of his social world. This is why studying this topic would allow me to have a more distant view of this phenomenon and make myself an expert in this field will open many companies' doors to me.

I have studied marketing for five years now and I have a clear idea of what I would like to do after: working as a marketer in the video game industry.

This paper will fill a gap created by this new phenomenon (Esport) and will provide a new source of information to any academics that wish to pursue the exploration of video game addiction in more details or to provide useful information to any practitioners in the video game industry.

2. Literature Review

Locke, Silverman, & Spirduso (2004)¹ suggested seeing a literature review as a useful but fallible source of information about the field to study. This review demonstrates what is already known and unknown, contradictions between authors that results in implied limitations. This literature review is structure as a '*cone*' with many layers creating a link between the original issues (video game addiction) to an unexplored academic area (eSport). It will reveal different limitations and gaps that may or may not be fulfilled through qualitative studies

2.1. Content of the Literature Review

This literature review is divided in four parts.

The first part undertakes the study of Problem Video Playing (PvP) and will focus on what define a video game addictive. It examines video game characteristics that create addiction and the outcomes such as cognitive psychology and consumer behavior. This part presents ground information necessary to explore in-depth the following parts.

The second part focuses on video game features that push users to an addictive tendency, the use of game design as marketing is the core subject of it. This section explores characteristics that increase playing retention through elements of game design. From social recognition, captivating stories to manipulating in-game changes, this review will lead to a new way of building video games.

The third part addresses of an emerging video game business model, Free-to-Play. It tackles the synergy created between new game design techniques and the Free-to-Play model to end with the close connection there is with eSport.

¹ ***Reading and Understanding Research*** – Lawrence F. Locke, Stephen J. Silverman, Waneen W. Spirduso – 2nd Edition, Sage Publication Inc, 2004.

The last part approaches this cutting-edge practice that is eSport. It explores the world that surround eSport and the impact of this practice on PvP. However few academic journals explored the eSport topic and this part will simply analyze basic information to be confirmed, compared and mostly supplemented by qualitative studies.

The exploration of these four parts will determine efficient research questions to fulfill gaps found in each one of them.

2.2. Addiction

2.2.1. What is Problem video Playing and its impacts?

Video-game addiction has been studied for many years and each of these studies used a different approach to this issue and since playing video game is now a popular leisure time activity according to Williams, Yee & Caplan (2008)¹, it is even more important to have a new outlook on it.

To define at what point we can consider if someone's suffer from addiction; Tilo Hartmann *et al* (2012)¹ had a joint study of habits, addictive tendencies and intentions toward video game playing. Playing video games as a regular routine develops a habit which is a mental construct that sets up, by repetition, a behavior (LaRose, 2010; Verplanken & Orbell, 2003)¹. Tilo Hartmann *et al* (2012)¹ consider three factors that regulate people's playing: Intention, habits and addictive tendencies. Each of these factors has an influence on the others; intentions push people to play because of their desires then playing video games as a regular routine develops a habit which is a mental construct that sets up, by repetition, a behavior (LaRose, 2010; Verplanken & Orbell, 2003)¹, which will lead to an addictive state.

When an user reaches an *“excessive amounts of time to play video games this is considered a defining characteristic of addictive tendencies to play video games”* (Lemmens *et al*, 2009)¹, he suffers from *“various symptoms such as users' craving for increasing amounts of video game play, mental preoccupation with game playing, and irritation if video*

¹ *What determines Video Game Use? The impact of Users' Habits, Addictive Tendencies, and intentions to play* – Tilo Hartmann, Younbo Jung and Peter Vorderer – *Journal of Media Psychology* 2012.

game use is not possible” as well as *“withdrawal and problematic outcomes”* (Tilo Hartmann *et al*, 2012)¹.

According to research conducted by Funk (1993)², 36% of boys spend 1-2 hours playing video games per week and 29% spend 3-6 hours. More recently, Van Rooij & Van den Eijnden (2007)³ that 70% of children between 10 to 15 year-old play video games and that 40% of adolescents play online video games.

However these studies do not take into account what make a video game addictive and only describe the fundamental process from being casual user to an addictive tendency player. It is also important to define what is an excessive amounts of time to start considering who suffers from addiction.

When it comes to video game addiction we refer this issue by using the term problem video game playing (PvP) (Luther Elliott *et al*, 2012)⁴. In their study about PvP, they defined that video game genre has an influence on video game addiction because of their structures, goals and designs. So their preliminary research *“suggests that some types of games are more likely to be associated with PvP”*. Their results also consider that other factors like relationship status, education level and employment situation influence PvP. This means that depending on circumstances, video game users are more likely to be addicted than others.

2.2.2. What make a video game addictive?

Georgios Floros and Konstantinos Siomos (2012)⁵ added the fact that specific themes linked video game genre to addiction: *“power, success and dominance over opponents”* and also *“competition and cooperation with other human”* were factor that push people to play

¹ *What determines Video Game Use? The impact of Users’ Habits, Addictive Tendencies, and intentions to play* – Tilo Hartmann, Younbo Jung and Peter Vorderer – *Journal of Media Psychology* 2012.

² *An Exploration of the Tendency to Online Game Addiction Due to User’s Liking of Design Features* – Chi-Ying Chen and Shao-Liang Chang - *Asian Journal of Health and Information Sciences*, Vol. 3, Nos. 1-4, 2008

³ *Online video game addiction. Exploring a new phenomenon* – Van Rooij – Ph.D dissertation thesis, University of Rotterdam, 2011

⁴ *Video Game Genre as a Predictor of Problem Use* – Luther Elliott Ph.D, Andrew Golub Ph.D, Geoffrey Ream Ph.D and Eloise Dunlap Ph.D – *Cyberpsychology and Social Networking Volume 15, Number 3*, 2012.

⁵ *Patterns of Choices on Video Game Genres and Internet Addiction* – Georgios Floros, M.D., M.Sc., and Konstantinos Siomos, M.D, Ph.D. – *Cyberpsychology, Behavior and Social Networking*, Volume 15, Number 8, 2012.

more. In opposition to Luther Elliott *et al* (2012)¹, this study defined precisely what drive people intentions and motivations to play.

However Paul J.C. Adachi and Teena Willoughby (2011)² undertook video game addiction in a different angle and tried to define if violence or competition in video games has the greatest influence on aggressive behavior. Initially it is relevant to define what aggression is and what defines a competitive game.

According to Anderson & Bushman (2001)², aggression is defined as *'the behavior intended to harm another person who has motivation to avoid the harm'*. There are different types of aggression including physical aggression, relational aggression and verbal aggression (Anderson *et al.* 2007)².

Competition is defined by Fülöp (1995)³ as the *'interactional process derived from inner needs or external/contextual requirement, which implicates two, or more persons or groups who deciding their chances commensurable strive for primacy in a given field. Competition is generated among individuals if they belong(ed) to the same group or if they will belong to the same group.'* Therefore as long as a video game introduces the concept of multiplayer, it involves a competitive aspect.

"In general, violent video games tend to be more competitive than nonviolent video games" (Carnagey & Anderson, 2005)⁴, this is a reason why previous studies considered violent video games as the main factor that leads users to an aggressive behavior. They considered three internal states in individuals, *"cognition (hostile thoughts), affect (anger and frustration) and arousal (elevated heart rate)"*, when users are addicted to video games and they cannot fulfill their needs, mental preoccupation and negative states are the most common

¹ **Video Game Genre as a Predictor of Problem Use** – Luther Elliott Ph.D, Andrew Golub Ph.D, Geoffrey Ream Ph.D and Eloise Dunlap Ph.D – *Cyberpsychology and Social Networking* Volume 15, Number 3, 2012.

² **The Effect of Video Game Competition and Violence on Aggressive Behavior: Which Characteristic Has the Greatest Influence?** – Paul J. C.Adachi and Teena Willoughby (Brock University, Canada) – *Psychology of Violence* 2011, Vol. 1, No. 4, 259 – 274

³ **Social representation of competition, fraud and academic cheating of French and Hungarian citizens** – Gábor Orosz – Ph.D Dissertation of Classical System for the Universtiy of Reims, 2010

⁴ **The Effect of Video Game Competition and Violence on Aggressive Behavior: Which Characteristic Has the Greatest Influence?** – Paul J. C.Adachi and Teena Willoughby (Brock University, Canada) – *Psychology of Violence* 2011, Vol. 1, No. 4, 259 – 274

symptom (Tilo Hartmann *et al*, 2012)¹. Aggressive behavior and addiction are indeed linked; this statement is also reinforced by Irwin and Gross' (1995)² study demonstrating '*that players involved in violent games had aggressive inclinations*'. Paul J.C Adachi and Teena Willoughby's³ results showed that "*participants in the competitive condition had the highest aggressive cognition scores*" and then suggests that "*the level of violence in video games may be less influential in elevating aggression than previously believed*".

We can see that this study demonstrates that video game genre is not the main influencer when it comes to PvP, but its core attribute (competitiveness) is.

Thereby, Dave Westwood and Mark D. Griffiths' (2010)⁴ study on '*The Role of Structural Characteristics in Video-Game Play Motivation*' has identified that users playing the longest reported being more motivated by challenges and competitions than other users. They usually lost track of time when playing and give importance to external rewards such as *Xbox LIVE* achievements and *PSN* trophies. They are likely to compare their scores to those of others "*through gaming leader boards*", and whenever they are interrupted in their game "*they are motivated to recommence gaming at the next earliest opportunity*".

This study presents the fact that "*hardcore gamers*" (users playing an excessive amount of time) are motivated by competition and challenge they are the most exposed users to PvP and to a new practice that is eSport.

However these studies did not consider if video games have been meant to be addictive and if they were strategic choices that increase playing retention.

¹ *What determines Video Game Use? The impact of Users' Habits, Addictive Tendencies, and intentions to play* – Tilo Hartmann, Younbo Jung and Peter Vorderer – *Journal of Media Psychology* 2012.

² *An Exploration of the Tendency to Online Game Addiction Due to User's Liking of Design Features* – Chi-Ying Chen and Shao-Liang Chang - *Asian Journal of Health and Information Sciences*, Vol. 3, Nos. 1-4, 2008

³ *The Effect of Video Game Competition and Violence on Aggressive Behavior: Which Characteristic Has the Greatest Influence?* – Paul J. C.Adachi and Teena Willoughby (Brock University, Canada) – *Psychology of Violence* 2011, Vol. 1, No. 4, 259 – 274

⁴ *The Role of Structural Characteristics in Problem Video Game Playing: A Review* – Daniel King, Paul Delfabbro and Mark Griffiths – *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 4(1), article 6, 2010.

Dorian Chandelier described in one of his videos (Ep: 5 Les Loots, September 1st 2013)¹ the fact that previously game designer used to create games based on their past experiences. When video game companies started to make use of Quality Assurance (QA) testing it brought a new way to approach designing content. While they used to proceed empirically, they started using experimental bases on cognitive sciences, especially Burrhus Frederic Skinner and his invention: The Operant conditioning chamber, also known as the Skinner Box (J.A. & MacPherson, 1994)². Based on Ivan Pavlov's Dog experiment, B.F Skinner added an element to the experimentation process: randomness. This new aspect pushed his subject (a bird) to press a button to get food, but when classical conditioning has its limits when the subject is not hungry anymore, adding the aspect of randomness makes the bird pushing the button anyway. This theory could also be applied on human beings.

D. Chandelier used the example of Blizzard Entertainment famous game '*Diablo*' to demonstrate that users can do the same action over and over like the bird and its button. The action of mouse clicking on monsters is simple and rapidly boring, however users can actually obtain items when killing a monster, and when it happens the feeling of getting rewarded pushed them to keep on playing during hours. In fact when it comes to basic needs, the Skinner Box works well on animals, but humans actually get bored. However when it comes to secondary needs like money, fame or recognition, human investment is endless even if they do not want to play anymore.

In fact video game companies implanted game design strategies to facilitate playing retention that leads to addiction.

2.3. Game Design

2.3.1. What is Game Design and its specificities?

Brathwaite & Schreiber (2008)³ in their book '*Challenges for Game Designers*', defined game design as '*the process of creating the content and rules of the game*'. In the

¹ 3615 Usul: [R&D] Merci Dorian – Ep. 5: Les Loots - Dorian Chandelier, Baptiste Penel – September 1st 2013

² *An Illustrated History of American Psychology* – J. A. & MacPherson, M.W – 2nd Edition, Akron, OH: The University of Akron Press, 1994.

³ *Challenges for Game Designers* - Brathwaite & Schreiber – 1st Edition, Cengage Learning, 2008.

case where game design is efficient, it then can be defined as *'the process of creating goals that a player feels motivated to reach'*.

According to Loftus and Loftus' (1983)¹, games' structural characteristics are especially developed to increase video game addiction. They are stating that *'the variable-ratio and fixed-interval schedules in video games were intended by designers to be 'addictive' and that 'computer designs have been found to have many important influences on users' psychology, particularly perception and cognition rehabilitation'* (Hult, Irestig & Lundberg, 2006; Thompson, Ennis, Coffin & Farman, 2007; Tam & Ho, 2006; Rizzo & Kim, 2005; Richard & David, 2005)³. Many game design choices have an impact on players' behavior, such as Narrative (interesting background story), Aesthetics, Character, Interface, Interaction (Chi-Ying Chen & Shao-Liang Chang, 2008)². According to their study aesthetics, interaction and character were positively associated with compulsive, tolerance and withdrawal addiction. Chris Allen³, CEO of Infrared5 studio, adds another game design choice that increases addiction which is timing. Short-time playing games are meant to be played over and over, the fact that they are so short (few minutes) that when it ends, people would think: *'well, one more try, it is only few minutes'*. Blizzard Entertainment new game *Hearthstone*, a game card, is a perfect example of it.

Other features like Rewards, Near Miss, Loss disguised as win, Skill, and Competition (Kevin A. Harrigan, Karen Collins, Michael J. Dixon, 2010)⁴. The traits defined by Kevin A. Harrigan & al. are borrowed from slot machines and applied to video games and *'those features inherent within the video game itself that may facilitate maintenance of video game playing over time'* (King D., Delfabbro P. & Griffiths M., 2010)⁵.

Slot machines have the most obvious form of reward that is financial, but when it comes to video games, rewards can have many forms from a specific outfit for the avatar, new items that increase avatar's competencies, score points, etc.

¹ **Video Game Genre as a Predictor of Problem Use** – Luther Elliott Ph.D, Andrew Golub Ph.D, Geoffrey Ream Ph.D and Eloise Dunlap Ph.D – *Cyberpsychology and Social Networking* Volume 15, Number 3, 2012.

² **An Exploration of the Tendency to Online Game Addiction Due to User's Liking of Design Features** – Chi-Ying Chen and Shao-Liang Chang - *Asian Journal of Health and Information Sciences*, Vol. 3, Nos. 1-4, 2008

³ **7 Key Ingredients for Designing Addictive Games** – Chris Allen CEO of Infrared5 Studio, 2010

⁴ **Addictive Gameplay: What Casual Game Designers Can Learn from Slot Machine Research** – Kevin A. Harrigan, Karen Collins and Michael J. Dixon - *Vancouver Digital Week 2010*, May 6-7, 2010

⁵ **Addictive Gameplay: What Casual Game Designers Can Learn from Slot Machine Research** – Kevin A. Harrigan, Karen Collins and Michael J. Dixon - *Vancouver Digital Week 2010*, May 6-7, 2010

- The near miss aspect in slot machines is simple, having two out of three of the same pictures is considered as near miss. In video games this is more about difficulty balance that make the win tough to obtain. According to King *et al.* (2010)¹ *'players are not constantly losing, but constantly 'nearly winning'.*
- Loss disguised as win is clear when it comes to slot machines is *'a play in which the player wins but receives a payout amount of money less than the amount wagered, hence actually losing on the wager'* (Kevin A. Harrigan *et al*, 2010)¹. In video games, usually platform games make use of this to trick players to grab a reward that is actually a penalty, or to make them lose score, health points, etc. that was not worth. This feature helps to increase players' excitement.
- The skill aspect is what motivates players to get better, however this is crossed with a part of randomness: enemies' patterns, drawn cards, every element in game that influences on users' competences. This feature implies that *'players may enjoy an illusion of control that does not affect how the game works but has a positive effect on the players' experience'* (Kevin A. Harrigan *et al*, 2010)¹.
- The last aspect, competition, is according to King and Delfabbro (2003)¹, *'the concept of 'meta-game rewards' that allow players to assess their overall mastery of a game by comparing their results to others'*, usually display though leader boards. Thus we can see that competitiveness is the main factor of video game addiction (Dave Westwood & Mark D. Griffiths' (2010)¹ and is a game design choice defined by video game companies.

Plus, Wood *et al.* (2004)¹ argue that *'the only major difference between them (video games and slot machines) is that most video games do not offer the chance to win money by playing'*. However this last assertion is not as accurate as it was since the rise of eSport practice with monetization through game playing.

2.3.2. Game Design as Marketing?

Plus, game design can be part of a marketing strategy as soon as it creates more than addiction but also needs. Juho Hamari & Vili Lehdonvirta (2010)¹ explained that virtual goods in games (such as armors, weapons, etc.) can develop needs like any ordinary product

¹ **Game design as marketing: How game mechanics create demand for virtual goods** – Juho Hamari and Vili Lehdonvirta - *Journal of Business Science and Applied Management*, Volume 5, Issue 1, 2010

would and that '*items are used as part of gameplay or to fulfill similar social and aesthetic functions*' (Lehdonvirta, Wilska & Johnsson, 2009)¹. So they viewed game design as one aspect in the company's marketing process that aims to create demand for virtual goods sold for real money. The marketing process behind this is the same as any other regular product: defining customers' needs and fulfill them. This is where designers create the rules and mechanics of the game that will determine specific in-game needs of the participants by modifying the internal economy, conditions and statistics (Juho Hamari *et al.*, 2009)¹.

Dorian Chandelier¹ explained in one of his video about balance in video games (broadcasted the 8th 2012) with the example of *Word of Warcraft* (Blizzard Entertainment), that a character is voluntarily stronger than the others in order to make everybody spends a lot of time playing them and reach the maximum level. Then they will fix this after receiving some complaints about it, and therefore make another character above the others. This results in everybody starting a new hero from the beginning and spends once again a large amount of this on it. If ever *Blizzard Entertainment* is out of character, they will create another in the next expansion pack. Usually this process includes a marketing strategy behind pushing people to spend money, in the case of *World of Warcraft* it is monthly subscription fee, in *Hearthstone* it forces people to spend money on buying booster packs to avoid playing hours to get new cards, and finally in *Diablo 3* it pushes people to buy through the real money auction house.

Hamari *et al.* (2010)¹ explored and compared design methods and game mechanics to traditional marketing science to ease virtual good sales.

The use of segmentation allows company to create and offer different products to a specific group of customer according to their status and usage rate. This behavioral segmentation (Kotler and Keller, 2006)² can be applied in-game by creating stratified content. The segmenting techniques are to stratify content, create status restrictions, propose increasingly challenging content and finally to have a horizontal gameplay.

- Stratify content: Automatically, a new player's avatar will start at the bottom and gains levels and rise in status. Therefore it is possible to segment players vertically and '*then differentiated items can be targeted accordingly*'. For each stratified level, it

¹ 3615 Usul: [R&D] Merci Dorian – L'Equilibrage - Dorian Chandelier, Baptiste Penel – December 8th 2013

² *Game design as marketing: How game mechanics create demand for virtual goods* – Juho Hamari and Vili Lehdonvirta - *Journal of Business Science and Applied Management*, Volume 5, Issue 1, 2010

is important that the game offers many items of several quality rankings to tease every player's envy (beginner or hardcore) and creating those layers to segment users according to their level, which is the result of their investment in the game, allows companies to offer different in and out game services to the right target.

- Status restriction: Creating status restrictions forces players to obtain new items to maintain the same relative performance or status. When they get levels by killing monsters, then they need to kill stronger ones to keep on leveling, however they also need to get better items to maintain their performance. In order to renew their inventory each item required a certain level to be worn, this is a vertical status restrictions offering only a specific amount of usable items and '*thus iteratively directing buying behavior*'. There is also a horizontal status restriction implemented in games with the example of avatar types by offering goods or items only usable by a certain avatar type (the archer needs a bow, the knight a sword, etc.).
- Increasingly challenging content: Designing more challenging content as they go along leveling. When the game becomes too difficult, players need to obtain new items once again because of the inefficiency of their old ones. This process can be endless by adding more difficult contents and stronger items. This way it creates a certain level of competitiveness that keeps users in front of their computer.
- Horizontal gameplay: Diversify activities inside the game can give a second breath to the game. Trading, socializing, in-game profession, collecting specific treasures, completing achievements, etc. are excellent ways to give another dimension to a game when the main goal has been reached.

Hamari *et al.* (2010)¹ concluded that it is possible to see many traditional marketing techniques inside games as game design choices. They also considered that game design is part of business planning and that '*game design is harmonized with overall business logic*'.

Since game design is considered as part of marketing strategies, we saw the emerging business model that is Free-to-Play. It is relevant to explore in details what are its characteristics and its association to Esport.

¹ **Game design as marketing: How game mechanics create demand for virtual goods** – Juho Hamari and Vili Lehdonvirta - *Journal of Business Science and Applied Management*, Volume 5, Issue 1, 2010

2.4. Business models

2.4.1. Video games Business Models

According to Brink & Holmén (2009)¹ there is no universal definition for the concept of business model.

However Morris *et al.* (2005)¹ identified that business model describes the way a company creates value, its competitive advantage, and the form of appropriating parts this value.

More recently, Frédéric Bertrand *et al.* (2012)¹ defined that the concept of business model dedicates systemic vision on the company, composed of many elements interconnected evolving in a dynamic way with surrounding environments.

Finally, more than a dozen different definitions for the term business model exist according to Li (2007)². He captured that a business model is ‘*a plan, system or story that explains how a business works*’.

Many business models exist in the video game industry. The triple A model that sells video games in boxed product is the most classic model but since video games are digital products, they are intangible which allows vendors to deliver them online. To Sharp & Rowe (2006)³ there is a close relation between video games and Internet that created new business models, new markets and new growth. Plus, according to Perry (2008)¹, 29 different business models for video games are possible which he defines as potential monetization methods.

- The most classic model is the retail model. It consists in selling in boxed video games through a physical distribution channel.
- With the expansion of internet, digital distribution model emerged. Instead of delivering games via physical channel, video games as intangible product can be sold and downloaded online.

¹ **Business Model et Information Financière** – F. Bertrand, C. Disle, N. Gonthier-Besacier, S. Périer & P. Protin (Academic lecturers at University of Grenoble) – Comptabilité et Innovation, Grenoble: France, 2012.

² **Business Models for Video Games** – Björn Olsson and Louise Sidenblom – Master thesis for the University of Lund, 2010.

³ **Business Models for Video Games** – Björn Olsson and Louise Sidenblom – Master thesis for the University of Lund, 2010.

- The subscription model is usually associated to Multi-Player Online Games (MMO's). Customers are charged on a monthly basis (but it could be weekly or annually), to play the game.
- Micro-transaction is the latest emerging model video game industry has developed. Games are free to download and play, the purpose of it is to allow anybody to try the game without investing money on it. The game gives users the possibility of buying extra content to enhance their experience through micro-transactions without having a major impact on how the game is played. According to Bailey (2010) the global market for 2009 was worth more than 500 million dollars.

We are seeing the democratization of the micro-transaction business models; their most significant revenues come from virtual-good sales (Bradley & Barlett, 2008; Ofek, 2008)¹.

The success of this new emerging business model could be displayed by the Institute for Information Industry of Taiwan's study that '*players have been migrating to free games in growing numbers since 2004*' (Lin, 2005; Liu, 2006, 2007)².

2.4.2. Focus on Free-to-Play business model.

Nowadays, instead of developing a video game sold for amount that varies from €20 to €70 or with a monthly subscription fee, companies allow users enter their game for free '*with the expectation that some users will nevertheless spend money on it though micro-transactions*' (Nojima, 2007)³. This new way of building video games like this is called a Free-to-Play (F2P) business model. When people willing to spend €70 or monthly fees on a video game is limited to a segment of hardcore gamers, Free-to-Play services have a much larger audiences (Juho Hamari & al, 2010)⁴.

¹ ***A New Conceptual Model for Business Ecosystem Visualization and Analysis*** – L. Felipe Hupsel Vaz, A. Roberto Ramos Nogueira, M. Aurélio de Souza Rodrigues & P. Castro Pires de Souza Chimenti – RAC, Rio de Janeiro, V. 17, n. 1, art. 1, 2013

² ***Cash Trade in Free-to-Play Online Games*** – Holin Lin & Chuen-Tsai Sun – Games and Culture 6(3), 2011.

³ ***Game design as marketing: How game mechanics create demand for virtual goods*** – Juho Hamari and Vili Lehdonvirta - *Journal of Business Science and Applied Management*, Volume 5, Issue 1, 2010

⁴ ***Game design as marketing: How game mechanics create demand for virtual goods*** – Juho Hamari and Vili Lehdonvirta - *Journal of Business Science and Applied Management*, Volume 5, Issue 1, 2010

The micro-transaction model is usually represented by the Free-to-Play (F2P) model. The main feature is the free access to full game and the editor's monetization system through virtual good sales, items, or functionalities with small unit costs (Pascal Luban & Mickaël Martin Nevot, 2012)¹.

Luban and Nevot also added that Free-to-Play games present important advantages like having a small initial investment cost due to the fact that F2P does not need to be fully developed at the first step. It allows developers to add content according to players' feedback and this takes part a strategy to increase players to coming back playing. The other advantage is the tradition game model can generate revenue only by selling boxed games and the subscription model generate revenue according to the number of players and durations of subscribed months; however F2P have three factors creating incomes: *'the number of players (revenues are proportional to this number), the percentage of players making micro-transactions and the amount of monthly transactions'*. The Average Revenue per User (ARPU) represents the general amount spent by players per year (around €2-3 for small games); the Average Revenue per Paying User (ARPPU) that takes into account only the amount spent by paying users who represent 5% to 10% of the whole community (the amount can reach €500) and 90% of F2P players does not spend a single cent on the game. However these non-paying users have their usefulness and create buzz.

In a triple A model, game designers had only the mission to entertainment players not to get bored while they use their products, whereas in F2P they have to entertain players but also to encourage them to spend money on it. Game designers had to relearn their craftsmanship *'by creating not only 'fun' but also to take care into account how monetization can be made. Game design is now crossed with marketing'* (Pascal Luban & Mickaël Nevot, 2012)². To illustrate their statement they quoted Jamie Cheng, Klei Entertainment founder, *'Don't make people pay to be entertained. Entertain to make them pay'*.

This is where “addictive” game design choices meet the F2P business model. These are most relevant design objectives and mechanisms for F2P games:

¹ **Le Modèle Free to Play** – Pascal Luban and Mickaël Martin Nevot - Communication Interactive et Ludique, V1.1.1, 2012.

² **Le Modèle Free to Play** – Pascal Luban and Mickaël Martin Nevot - Communication Interactive et Ludique, V1.1.1, 2012.

- Bring immediate satisfaction: Since it is a free-of-charge video game, it is important to catch players' interest as soon as possible. When customers invest money on a product, even if it is not satisfying they will spend a couple of hours before give up, but when it comes to free games, within the first minutes if the game is not accomplishing its mission of entertainment, they will toss it away and find a new one.
- Designed to last: The longest users play, the more susceptible they are to spend money on it. It is after being invest and committed to the game that non-paying users turn into paying users, hence game design has to catch players' attention for weeks, months or even years.
- Create regular new content: F2P games are not static; they need new content on a regular basis to keep players' retention. New missions, items, skins, equipment, sales, etc.

These game design features increase the chance of users becoming customers. Thus, customers' motivations (Lehdonvirta, Wilska & Johnsson, 2009; Juho Hamari & Vili Lehdonvirta, 2010)¹ saw previously become stronger due to their commitment to the game.

During a conference reported by the website esportfrance.com April 1st 2013², there is a close link between F2P model and the practice of eSport. Moreover the fact games are free to access is a way to constitute a solid amount of active players; it is mainly the economic model used that links Free-to-Play and eSport. Free-to-Play can see on eSport a way to promote, using competition as a showcase. Plus, competitive games need to last in order for players to develop their skills, create structures, and balance the game, with regular updates and patches.

Hence the F2P model implies all this characteristics in its goals.

¹ *Game design as marketing: How game mechanics create demand for virtual goods* – Juho Hamari and Vili Lehdonvirta - *Journal of Business Science and Applied Management*, Volume 5, Issue 1, 2010

² *Le Free to Play et l'eSport* – esportfrance.com – April 2013

2.5. eSport practice

2.5.1. Definition of eSport and impacts

According to Michael G. Wagner (2006)¹, there is currently no generally accepted academic and scientific definition of the term “*eSport*” at all. However it is considered ‘*equivalent to “professional gaming”, a competitive way of playing computer games within a professional setting*’ (Tonya Welch, 2002).

As a consequence, competitiveness is the main characteristic of a practice that is getting more and more popular: eSport. According to Electronic sports (2009)², online eSports games are becoming more popular because they are fun, convenient, unpredictable, and provide an opportunity for skill mastery.

Donghun Lee and Linda J. Schoenstedt’s³ study comparing eSports and traditional sports explains that ‘*multiple regression results indicated that competition and skill had a statistically significant impact on the time spent on eSports games*’. This suggests that the eSport practice should be more influential when it comes to PvP. With the growth of the internet and information technology that accelerated the popularity of interactive digital communications, it has boosted eSports consumption.

2.5.2. eSport as a curse increasing Problem Video Playing?

The evolution of technology changed the mode of eSports consumption from human-versus-machine to human-versus-human (Griffiths, Davies, & Chappell, 2003)³; this change implies a more social aspect due to its possibility to exchange with others. There is then a contradiction between Tilo Hartmann *et al*’s (2012)⁴ study that claims there is a withdrawal

¹ **On the Scientific Relevance of eSports** – Michael G. Wagner - Department for Interactive Media and Educational Technology, Danube University Krems, 2006

² **Comparison of eSports and Traditional Sports Consumption Motives** – Donghun Lee (Ball State University) and Linda J. Schoenstedt (Xavier University) – Journal of Research, volume 6, issue 2.

³ **Comparison of eSports and Traditional Sports Consumption Motives** – Donghun Lee (Ball State University) and Linda J. Schoenstedt (Xavier University) – Journal of Research, volume 6, issue 2.

⁴ **What determines Video Game Use? The impact of Users’ Habits, Addictive Tendencies, and intentions to play** – Tilo Hartmann, Younbo Jung and Peter Vorderer – Journal of Media Psychology 2012.

symptom that results from addiction and the eSport practice that creates a more social experience regardless its more addictive aspect because of competitiveness.

Indeed, Brett Hutchins's (2008)¹ study explains that WCG's slogan and purpose (World Cyber Games), event gathering cyber-athletes for tournaments, are "*to combines the world to create harmony and enjoyment though shared emotion*". This statement goes against the fundamental symptom definition of addiction according to Tilo Hartmann *et al* (2012)².

Since eSport is a new phenomenon, there are few studies about its influential aspect on gamers and PvP. I will then try to evaluate this new practice's influences on PvP through this dissertation.

With the growth of the video game industry that generated \$20 billion in the US alone in 2007 (Nagle, 2009)¹; this raises another aspect that tends to push people to PvP, do video-game companies take advantage of this opportunity?

Donghun Lee and Linda J. Schoensted¹, in their comparison of eSports and traditional sports, also state that '*it is critical for marketers to take advantage of this trend*' and '*by developing tailored messages that drives consumption behaviors of target audiences to specific games, there will be a better chance for marketers to fulfill their strategic goals of increased purchasing*'. They also claim that designers and producers of eSports then need to utilize the concept of team/institution/player rivalries to attract more players and buyers.

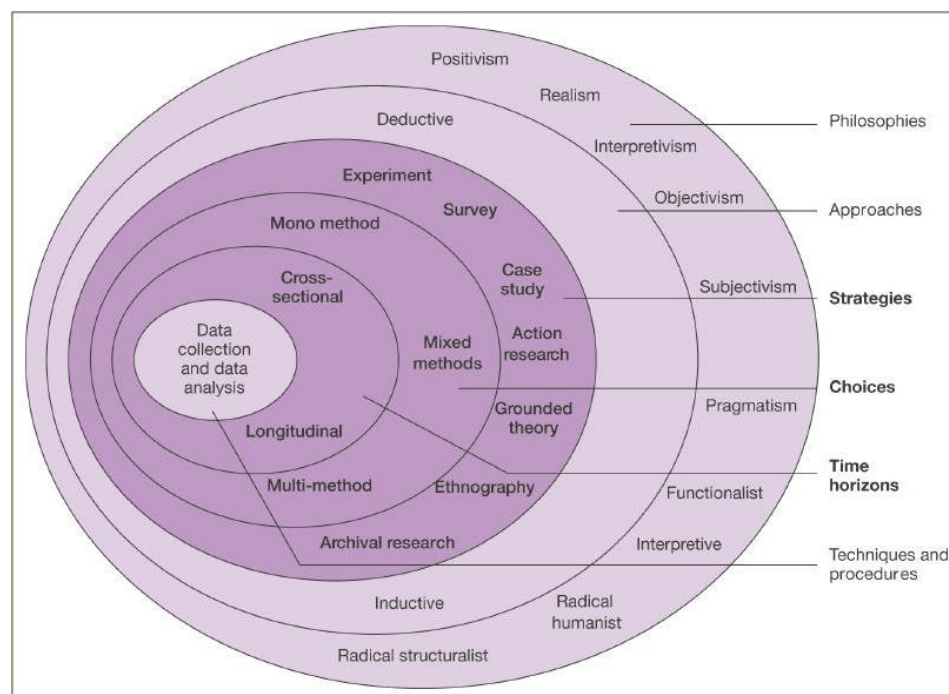
Therefore we can question ourselves since eSport with its competitiveness, its close relation to Free-to-Play business model and its specific addictive game design choices, is a practice that will increase problem video playing. This dissertation will explore the eSport world and its impact on PvP, new game design mechanisms implanted in this new trend and the business model that create a sphere around it.

¹ *Signs of meta-change in second modernity: the growth of e-sport and the World Cyber Games* – Brett Hutchins (Monash University, Australia) – *New media & society*, Volume 10(6): 8851-869

3. Research Methods and Methodology

3.1. Introduction

To undertake my dissertation, it is important that I have clear methodology to define a guiding thread that I will follow. To do so, I based on “*Research methods for business students, fifth edition*” (Mark Saunders, Philip Lewis & Adrian Thornhill, 2009)¹ as a methodology literature. It will help me to have a clear vision of how I have to undertake, write and present the purposes of my project.



The research "Onion"

Saunders *et al* (2009)¹ created a methodology scheme to undertake an academic project such as a dissertation, the research "onion". They classified researches into six stages (or "layers") and present each step that need to be understood and chosen by a student willing to write a thesis. I decide to use this approach to have a clear understanding of each 'layers' I need to define and understand before launching myself into this project. It is by analyzing each layer that I was able to define and pick my philosophy, approach and methods.

¹ *Research methods for business students* – Mark Saunders, Philip Lewis and Adrian Thornhill – Fifth edition, 2009

3.2. Research Problem Definition

According to Domegan and Fleming (2007)¹, problem definition is the first, initial step in any research project, it involves the researcher to questions what the problem is. I defined my general research question as:

‘Has the impact of eSport democratization affected Problem Video Playing (PVP)?’

To gather the more relevant information to the research problem above, my research process includes defining clear objectives to find specific answers to each one of them. This way, I will be able to aim for pertinent primary data.

3.3. Definition of Research Objectives

All research objectives are characterized by their purpose and the interviewees that would provide the right information. The research objectives are as follows:

1. *To explore game design choices as marketing strategies on PVP.*

More specifically to define what are the characteristics of an addictive video game and if there characteristics will automatically increase video game playing retention.

2. *To investigate the impact of emerging Business Models on PVP rates.*

More specifically to explore the new concept video game companies implant in the product they sell and if there is any correlation between emerging Business Models and the Esport practice.

3. *To explore the practice of eSport competitiveness on PVP.*

More specifically to analyze if the addiction is the same compared to non-eSport video game and who suffer the most from eSport: Pro players or home players.

The purpose of these objectives is to organize every key point that would, when gathered, provide a better understanding of my research problem. Plus, these objectives are aiming

¹ *Marketing Research in Ireland: Theory and Practice* – 3rd Edition – Christine Domegan & Declan Fleming, 2007.

answers from different angles related to addiction: marketing impacts, emerging business models and eSport practice.

3.4. Research Philosophy

There are four different philosophy approaches that lead researchers in their research strategy, which are: Positivism, Realism, Interpretivism and Pragmatism. Each philosophy has an impact on how we interpret what we do and how we understand the data we collect (Johnson and Clark, 2006). These philosophies considerably influence researchers' views on the importance and significance of what are useful data or not (Saunders, 2009)¹

It seems that the interpretivism philosophy will be the most adapted for my research area due to its social approach on topics. Interpretivism is defined as the way researchers understand differences between humans in our role as social actors, it emphasizes the differences between studies on human beings and the ones on objects such as computers (Saunders, 2009). It is also important for the researcher to adopt an empathetic stance. Indeed, Interpretivism philosophy implies to enter our subjects' world and understand it from their point of view, which will match my topic *"Since video games have become popular: What are the influences of the e-sport practice's democratization and how do they impact on video game addiction?"* Besides, studying addiction is a concept we cannot apply to everybody in the same way because subjects' feelings are impossible to be defined by one statement and reason but by many: It cannot be law-like generalized.

As a result this dissertation will focus mostly on qualitative investigations to obtain information about the e-sport practice and the new business models set up by companies and their effects on video games addiction. Despite of few quantitative researches that would be necessary to my topic, in-depth investigations will gather more useful data to response to my hypotheses. Needless to say that interpretivism is the philosophy I will follow to achieve this dissertation.

¹ **Research methods for business students** – Mark Saunders, Philip Lewis and Adrian Thornhill – Fifth edition, 2009

3.5. Research Approach

There are two different research approaches that lead in a specific way how to write a dissertation: Deduction and Induction.

In one the hand, deduction is defined as “*a dominant research approach in the natural sciences, where laws present the basis of explanation*” (Collis and Hussey, 2003)¹. Its principles is to develop a theory that is then subjected to rigorous tests, it is more adapted to scientific researches. Like the positivism philosophy, the deduction approach suggests that “*the researcher should be independent of what is being observed*” (Saunders, 2009)¹. The deduction concept needs to be operationalized and develop generalizations (Saunders, 2009)¹. It means that measurable quantitatively approaches are more likely to give structural and undeniable conclusions due to facts and finally establish a generalization about the tackled topic.

In the other hand, in the induction approach, “*theories would follow data rather than vice versa as with deduction*” (Saunders, 2009)¹. When it comes to social experimentations, it is impossible to establish generalizations about their behavior and reactions to a specific phenomenon, because it is crucial to understand “*the ways in which humans interpret their social world*” (Saunders, 2009). This is the strength of induction because of its more qualitative data-collection approach. Since my dissertation topic involves an important part of understanding how customers’ addiction reacts toward a specific video game, it is impossible not to have a social science approach neither a consideration of the world surrounding them.

Induction includes the context in which events take place and then explain phenomena by using many and not necessarily quantifiable data. That is why it is more likely to work with qualitative data and “*use a variety of methods to collect them in order to establish different views of a phenomenon. Induction approach is the understanding of why something happens instead of a description of what happens*” (Easterby-Smith et al, 2008)¹.

Thereby, I used an induction approach to my topic because it involves a study of a phenomenon in which the social world has an influence on. A qualitative data collection

¹ **Research methods for business students** – Mark Saunders, Philip Lewis and Adrian Thornhill – Fifth edition, 2009

matched more my interpretivism philosophy approach and created a real synergy and coherence for my dissertation.

3.6. Research Strategy

There are many research strategies that can be used to explore, describe and explain researches (Yin, 2003)¹. However each of them belongs, or is more appropriate, to an inductive or deductive approach, and thereby has more or less efficiency to reach the study's objectives. There are seven different strategies: Experiment, survey, case study, action research, grounded theory, ethnography and archival research.

It was important for my dissertation to collect quantitative data to have an overview of customers' context toward video game addiction; these data would be developed thanks to my interviews to get efficient information.

I used the classic grounded theory (Glaser and Strauss, 1967)¹ due to the fact this strategy is '*particularly helpful for research to predict and explain behavior*' (Goulding, 2002). This strategy is an extension of my induction approach in the sense that I drew conclusions from my qualitative observations of the social world that surround players and the eSport practice.

3.7. Research Choice

Now that I have defined my research strategies, I have to choose what data collection techniques and analysis procedures I will need. These techniques and procedures will affect my results which will have an impact on my ability to respond to my objectives.

I planned to have a qualitative data collection process; this is why I used a mono method approach. According to Tashakkori and Teddlie (2003)¹, this approach will grant me "*better opportunities to answer my research questions*" and that it helps researchers that need to make sense of the subjective and socially constructed phenomenon being studied.

¹ **Research methods for business students** – Mark Saunders, Philip Lewis and Adrian Thornhill – Fifth edition, 2009

3.8. Time Horizons

There are two different time-horizon researches which are the cross-sectional study or the longitudinal study. The first one is more considered like a “*snapshot*” time horizon and the second looks more like a “diary” perspective (Saunders et al, 2009)¹.

In the case of this dissertation, I conducted a cross-sectional study for different reasons:

- The most important of them is the time limitation I had to achieve this project that would not have allowed me to conduct a several-year in-depth study. Plus, I sought to analyze and explained a specific phenomenon at a particular time that does not require a longitudinal study.
- Despite the fact that “*cross-sectional studies often employ the survey strategy*” (Easterby-Smith *et al.* 2008; Robson, 2002)¹, I conducted a more important amount of qualitative data collections that were based on interviews on a short period of time.

3.9. Data Collection

3.9.1. Secondary Data Collection

I used secondary data quite a lot as a base to provide useful information to answer my research questions. It helped me to get an overview of how are the video game addiction and the eSport practice situations before starting my field study.

It is also an important time-saver because gathering this amount of data by myself would have taken time that I did not have. Plus, it allowed me to compare previous data to the one I collected during my field study and draw conclusion from it.

For the purpose of this literature review, I consulted relevant academic journals, master thesis, periodicals as well as newspapers and videos. They provided solid foundations to this research.

¹ *Research methods for business students* – Mark Saunders, Philip Lewis and Adrian Thornhill – Fifth edition, 2009

3.9.2. Primary Qualitative Data Collection

For my primary qualitative data collection I undertook Non-standardized interviews. I used a Non-standardized method to collect my qualitative data because, according to Easterby-Smith *et al* (2008)¹, it will allow me to create interviews with a large amount of questions/answers, obtain open-ended questions and have a deep explanation without any constraints a questionnaire could bring. More precisely I will focus on:

- Semi-structured interviews: since I interviewed people with different status and interest in my topic (from a video-game company marketer to a video-game web influencer) my questions changed because of the information and the point of views they were able to provide, or to avoid certain topics that would have upset them and made an early end to our meeting.
- Unstructured interviews to have a conversation about a specific topic with no limitations or boundaries: A clear exploratory approach. Since I interviewed the video-game experts, I needed them to provide full and complete explanations, or build on their responses. These informant interviews made interviewees' responses and their approaches to the subject would conduct and guide the interview. (Easterby-Smith *et al*, 2008; Ghauri and Gronhaug, 2005; Robson, 2002)¹.

All these interviews have taken place in a one to one situation via a Skype conversation. The privacy of these interviews let them speak freely without being judged for their words. I used non –standardized interviews due to my needs for exploratory and explanatory ways to get in-depth information from my interviewees.

I used my cellphone to audio-record every interview since I needed to keep and analyze the exact words they used not to modify their remarks and commentaries. I warned them in advance that they would be recorded, to make sure there would be no misunderstanding and keep an ethical procedure.

After transcribed audio records, I sent both audio and written files to my interviewees to follow an ethical procedure. They have been able since to contact me again if they wanted to come back on my transcription and disclaim statements I had written.

¹ **Research methods for business students** – Mark Saunders, Philip Lewis and Adrian Thornhill – Fifth edition, 2009

3.9.3. Data Analysis

After interviewing every person that has given me useful data for my research questions, I had to re-transcribe every word of my audio records without forgetting to precise the tone and non-verbal communication. Even if this was time consuming, it was an important stage that I had to deal with in order to be able to present and analyze properly my data. I then sent a copy to every participant for a checking: data cleaning.

To analyze my qualitative data I used an inductive approach, however I still needed '*knowledge information*' in the area from my secondary data to elaborate clearly my research questions and objectives for my interviews.

I decided to pick an inductive approach because my project had an important exploratory part and the fact that I did not want to be too influenced by theories that would have unconsciously lead me to prove them. Plus, a new phenomenon like eSport practice results to define a new context and circumstances that must be taken into account for my study.

More specifically, I made use of a template analysis model, due to King (2004)¹ sayings about this model being a '*more flexible route to analyze*'.

In this process, data are coded and analyzed regarding a temple (coding). It allowed to put forward the most important and useful piece of information category and compared it to other codes to create a relationship and draw conclusions.

3.10. Population and Sample

For my interviews I decided to pick the purposive sampling technique. According to Patton (2002)¹ it allows me to '*select information-rich cases*' that will give me in-depth data. It is crucial that I choose the right person to interview and I contacted two persons based on their abilities to provide useful information related to my research objectives:

¹ *Research methods for business students* – Mark Saunders, Philip Lewis and Adrian Thornhill – Fifth edition, 2009

- **First & Second objective:** Mr. Elie Rotenberg is a computer scientist, gaming expert passionate developer. He is in his third year of PhD in Computer Science at “*Laboratoire d’Informatique de Paris 6*” and also Strategy & Content Director of Millenium (the most important organization gathering the French community around online video games, participating to video game tournaments with professional teams). His expertise and experiences helped me having an in-depth exploration of game design and business model choice for video games.
- **Third objective:** Mr. Thomas #Zaboutine is a League of legends podcaster, commentator, project manager and video games writer/publisher since 2011 at O’Gaming & Millenium. He has an expertise in the field of eSport that had granted me rich-based data related to my last objective. His approach on the subject is more professional due to his experience.

Due to their empirical and academic knowledge, the respondents would be able to provide useful information from different angles. This is going to help me defining a framework of what on editors’ business models, game design strategies and eSport ecosystem.

3.11. Ethical Issues

When it comes to gather qualitative data during a study, it is crucial to take into consideration that certain information does not want to be disclosed. Since my dissertation includes many qualitative data resulting from interviews, it is important that I asked every person I interviewed if they wanted their comments and words to be protected by a confidentiality clause.

When I came to interview Mr. Elie Rotenberg some of his remarks were censored due to confidentiality with companies he worked with. I offered him the possibility to sign a confidentiality clause and explained that this process would have involved my tutor and the Dublin Business School to sign this contract to guarantee the privacy of their sayings. However he preferred not to get into such a complex situation and prefer censoring some of his comments instead.

3.12. Limitations to the Research

The fact that eSport practice is a phenomenon that does not exist for a long time, it is likely that this study will not have enough and will not benefit from hindsight. It is expected that new studies would draw more efficient conclusions in a couple of years when they would have enough hindsight to evaluate the impact of this practice toward the video-game addiction.

To get interviews from marketing perspective, I had to contact video game companies such as Ubisoft or Ankama Games, and video game journalists like Marcus or the duet Usul/Dorian. Unfortunately at that time of the year, before Xmas season, they are all very busy working on their winter-holiday releases and events. This results in many negative answers to my interview proposals.

I spent a lot of time trying to contact psychology professors and preparing my questionnaires for them since I have a specific part on video game addiction. However it came to me that I had to focus more on the marketing aspect since this is a master thesis in marketing and not in psychology. That means the video game addiction aspect of this subject is not explored in-depth.

When I interviewed Mr. Elie Rotenberg, he decided not to sign a confidentiality clause due to the complex process it involves. Unfortunately this result in censoring some of his remarks about the companies he worked with and could not gave me access to some of his papers on game design addiction because of the privacy it involved. Regrettably, I could not seize the opportunity his works represented.

Another limitation I had to take into account is that the interviews will be in French. When I will have to translate to English it could have flaws in the translation process since I am not an interpreter I will not be able to re-transcribe interviewees' exact words and sayings. Plus, from a language to another, specific words do not exist and neither do their meanings.

Last but not least, some of the academic journals referenced in this master thesis dissertation are in French. I had to translate all the information to English, which implies in some case, a modification of their sayings.

4. Research Findings

4.1. Introduction to Research Findings.

This chapter compares, analyzes and discusses the research findings from interviews (Appendices 8.5) as described in section 3.9.2 (Qualitative Data Collection) and 3.10 (Population and Sample). The aim of this chapter is to empirically test and compare data collected during the literature review section, in order to define which statements can be considered as true, part-true or as for now irrelevant.

Addiction, business models and game design are topics well-known in the academic circle; however there are few academic articles on the subject of eSport, these research findings will contribute to developing solid academic bases to future project.

To do so, interviewees were selected depending on their implication in the world of eSport. In one hand, Elie Rotenberg is a third-year Ph.D candidate in informatics who worked for video game companies, his specialties are game design impacts and business models. By running a famous French-speaking website that broadcast video game streaming competitions, his sayings fit the purpose of this research. In the other hand, Thomas #Zaboutine is a well-known commentator and broadcaster for O'gaming website; he is specialized in analyzing video game matches and especially League of Legends games, and being in the middle of the eSport environment gives a deeper insight into this topic.

This chapter will be structured in three parts to respond to each objective. All parts are connected to another to facilitate the comprehension and impacts from one to another and are taking part as a discussion to draw evidences, contradictions or logical follow-ups.

The first section deals with the exploration of game design that influences Problem video Playing (PvP), the second section treats business models aspect and their impacts on PvP and last part approaches eSport competitiveness and its influences on video game addiction.

After analyzing and comparing research findings to secondary collected data, a conclusion chapter summarizes gathered information in order to define recommendations for further academic or professional projects.

4.2. Methodology applied

Firstly, interview questionnaires were designed according to the research problems and objectives seen previously, and interviews were made during the month of November and December 2013 via Skype software. None of these questionnaires were given to interviewees before in order to avoid ready-made answers and obtaining answers as close as possible to reality. They were audio-recorded to be transcribed into written data using the actual words of participants and their tone to avoid any impoverishment of collected data (Kvale and Brinkmann, 2009)¹. However, not having a face to face interview prevented the possibility of catching any non-verbal communications such as gestures.

Secondly, previous academic and periodical literatures and research findings were examined in order to define a framework.

4.3. Objective 1 – Research Findings

Since playing video games has become a regular habit among children, teenagers but also adults that grew up between the 90's, video game addiction could impact more individuals than before. There is no opposition or contradiction in this section due to basic elements that cannot be denied, but the undertaken field study presents new contents and approaches as a complement to what is already knew.

This section explores how video games present addictive assets that may or may not lead to problem video playing (PvP), companies' strategy behind this and the impacts on users.

‘To explore game design choices as marketing strategies on PVP.’

4.3.1. A more scientific approach to video game design

The research demonstrates that inside video games are implemented elements that drive users during their experience; these elements are “*game design choices*”. The purpose

¹ ***Research methods for business students*** – Mark Saunders, Philip Lewis and Adrian Thornhill – Fifth edition, 2009

of these features is to facilitate maintenance of video game playing (King D., Delfabbro P. & Griffiths M., 2010)¹.

Kevin A. *et al* (2010)², defined various elements, borrowed from slot machines, that increase time playing such as Competition, rewards, skill, etc. but their impacts on players' behavior is limited to replay, it creates an automatism. This compulsive behavior was also raised by Chris Allen with his citation '*Well, one more try, it is only few minutes*'. However, when it comes to video game addiction, the most important symptom is the withdrawal aspect (Tilo Hartmann *et al*, 2012)³.

As a complement to previous game design choices, a study by Chi-Ying Chen and Shao-Liang Chang (2008)⁴ presented other game design features more relative to video games (in opposition of being borrowed from slot machines) such as Narrative (background story), Aesthetics, Character and Interface were positively associated to compulsive, tolerance and withdrawal addiction.

Yet, academic literatures usually define an exhaustive list of game design features and their impacts on players' behavior. These features as true as they are, stay conceptual, and do not take into account specific game design strategies hidden behind it. The research noticed that new characteristics in video games are borrowed from scientific experimentations. Some of them, usually adapted to MMORPGs (Massively Multiplayer Online Role Playing Games) cannot be categorized as "*classic*" features listed in nowadays academic sources.

Elie Rotenberg described incremental systems put in video games as a definition of the speed at which a player moves along the game hierarchy with an exponential decay system to gain power with invested time.

¹ ***The Role of Structural Characteristics in Problem Video Game Playing: A Review*** – Daniel King, Paul Delfabbro and Mark Griffiths – *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 4(1), article 6, 2010.

² ***Addictive Gameplay: What Casual Game Designers Can Learn from Slot Machine Research*** – Kevin A. Harrigan, Karen Collins and Michael J. Dixon - *Vancouver Digital Week 2010*, May 6-7, 2010

³ ***What determines Video Game Use? The impact of Users' Habits, Addictive Tendencies, and intentions to play*** – Tilo Hartmann, Younbo Jung and Peter Vorderer – *Journal of Media Psychology* 2012.

⁴ ***An Exploration of the Tendency to Online Game Addiction Due to User's Liking of Design Features*** – Chi-Ying Chen and Shao-Liang Chang - *Asian Journal of Health and Information Sciences*, Vol. 3, Nos. 1-4, 2008

‘The more we play the stronger we get, but to past that level and get a little bit stronger we will need to spend definitely more time than before’ (Elie Rotenberg)

The respondent specified that it needs to be well calibrated in order to satisfy new players and older players. To avoid that new players feel they will not be able to catch up with the others and certainly not creating a sensation of waste of time for old players.

‘This works with a progressive devaluation on the value of time invested’ (Elie Rotenberg)

In addition to it, Dorian Chandelier documentary on game design features mentioned the Skinner Box (J.A. & MacPherson, 1994)¹. A scientific experimentation that is, nowadays, applied inside video games to influence users’ behavior. The operant conditioning as a tool to increase video game playing time is mostly applied in adventure games, and manages to push users to execute a boring and repetitive action for hours get loots. This analysis goes further than Kevin A. *et al* (2010)² study on rewards as a driven element.

Elie Rotenberg also evoked the use of characteristics based on cognition biases that push players to invest more in the game.

‘The idea is that the more we invest in the game, the more we feel losing if we stop investing, this is of course a vice circle’ (Elie Rotenberg)

Interestingly, there is a new scientific approach to creating a video game than before. The use of previous features listed in academic literatures is still relevant to create an efficient addictive video game but we should consider them as the basics of nowadays game design.

¹ **An Illustrated History of American Psychology** – J. A. & MacPherson, M.W – 2nd Edition, Akron, OH: The University of Akron Press, 1994.

² **Addictive Gameplay: What Casual Game Designers Can Learn from Slot Machine Research** – Kevin A. Harrigan, Karen Collins and Michael J. Dixon - *Vancouver Digital Week 2010*, May 6-7, 2010

4.3.2. Companies strategy through game design

The findings demonstrate a bond between Dorian Chandelier sayings about balance in video game and release cycle called to mind by Elie Rotenberg.

According to D. Chandelier¹, characters in video games are intentionally stronger than others to create an “*unbalanced*” game at the beginning. This implies modifying game content in future patch, update or expansion pack after months. When all users tended to play only strongest characters they finally switch to a new one when the company will have enough negative feedbacks about it. Then they will do other unbalanced changes to make users dive into another character. This increase the time players spend in front of their computers trying to be the best of their server.

Interestingly, Elie Rotenberg evoked the spread of new content cycle. Instead of grouping new content by long release cycle or expansion, it is preferable to companies to develop small updates to give the illusion of novelty. Thereby it catches people attention and pushes them to get back playing. It is directly related to features based on cognitive biases seen previously; the more they feel losing if they stop investing. This specific aspect is relevant to Free-to-Play (F2P) business model.

‘The example of League of Legends which in my opinion really mastered his marketing strategy, new contents every week or two’ (Elie Rotenberg)

What Elie revealed is that video game companies create various game design elements to manipulate players’ actions in-game (creating new characters) and outside the game (bring users back with new content).

Elie’s statement directly matches Pascal Luban & Mickaël Nevot (2012)² study on the Free-to-Play model. The importance of creating regular new content is one mechanism to facilitate the reach the status of “*addictive game*”. Games are also designed to last in order to create enough investment into it and develop a commitment between users and the game.

¹ 3615 Usul: [R&D] Merci Dorian – L’Equilibrage - Dorian Chandelier, Baptiste Penel – December 8th 2013

² Le Modèle Free to Play – Pascal Luban and Mickaël Martin Nevot - Communication Interactive et Ludique, V1.1.1, 2012.

Needless to say that it contributes to the use of spread content cycle Elie addressed previously.

The purpose of these addictive mechanisms is to increase time playing in order to create a real bond between the players and the game. When players feel involved with the game they are ready to spare no expense into it, this is frequently the case for Free-to-Play video games that have a virtual-good sales monetization system.

When Juho Hamari & Vili Lehdonvirta (2010)¹ described that game design can be part of a marketing strategy as soon as it creates needs, Elie Rotenberg highlights that well-constructed Free-to-Plays give a lot of importance to display toward other players. Users will then attach a lot of importance to their appearance and reputation.

‘Even if buying specific clothes that will not make someone stronger, the eager to be different takes over’ (Elie Rotenberg)

The respondent also mentioned that these aesthetic needs could not exist without the emergence of streaming technology and development of online reputation. Thus, even in the video game world taking care of our image has become a priority, and therefore a marketing tool for companies.

‘So between different social networks and the streaming allowing players to be seen by 10,000 persons at the same time, people gave more importance to online reputation’ (Elie Rotenberg)

Interestingly, new game design features previously seen were part of the core product of a video game and their purpose was to entertain users. The emerging new business model that is Free-to-Play (F2P) has changed the objectives of game design from entertaining to selling. In the F2P world, game design is marketing.

¹ **Game design as marketing: How game mechanics create demand for virtual goods** – Juho Hamari and Vili Lehdonvirta - *Journal of Business Science and Applied Management*, Volume 5, Issue 1, 2010

4.4. Objective 2 – Research Findings

Video game ecosystem has changed in during the last decade and evolved with the development of new technologies such as the internet. Video gaming industry found new approach to selling their products, from boxed to dematerialized games. Thus, companies set up new business models according to products they deliver.

This section investigates the new business models developed by the video game industry, their impacts on Problem Video Playing and the close connection there is between emerging models and eSport.

‘To investigate the impact of emerging Business Models on PVP rates.’

4.4.1. Free-to-Play (F2P), an emerging business model for video game industry

According to Bradley & Barlett (2008) and Ofek (2008)¹ there is a democratization of micro-transaction business models as the latest emerging model video game has developed. The purpose is to distribute a free game with extra content to buy to enhance playing experience without having a major impact on how the game is played.

However, Elie Rotenberg specifies there are different types of F2P. The historical one is now called “Pay to Win” because of its specifications that offer the possibility to buy extra content that will influence the rules in-game and therefore will modify the perception fair game. This model was not successful due to this unbalanced gameplay, and nowadays increasing performance with money is frowned upon by communities.

‘It didn’t work in Europe especially because the perception of an equitable and fair game completely dissociates inside and outside game elements’ (Elie Rotenberg)

¹ **A New Conceptual Model for Business Ecosystem Visualization and Analysis** – L. Felipe Hupsel Vaz, A. Roberto Ramos Nogueira, M. Aurélio de Souza Rodrigues & P. Castro Pires de Souza Chimenti – RAC, Rio de Janeiro, V. 17, n. 1, art. 1, 2013

The respondent added that new model provides items, equipment, visual display units or modes to buy but limited to elements that will not modify games rules. He defined it as the modern F2P.

Finally, a hybrid version of micro-transaction model allows users to buy everything with real or in-game money, which makes gives the possibility to rush higher level in-game faster but this do not so far create an unbalanced game.

The findings demonstrate that there are three micro-transaction models instead of considering only one. Even if historical F2P are less popular, some companies still make use of it because increasing the performance in-game leads to a specific aspect that motives people to addiction: *'power, success and dominance over opponents'* (Floros and Konstantinos Siomos, 2012)¹.

The reason Free-to-Plays are successful new emerging models is due to their important advantages they provide. A small initial investment cost is needed and the game does not need to be fully developed (Luban & Nevot, 2012)².

In addition, the respondent clearly makes an opposition between the triple A model, that involves selling video games in boxed product, and the F2Ps' goals. When triple A model only sells games once, F2Ps implies incomes on a large period of time. Due to small marginal costs such as server maintenances, over time companies are able to make more profits with a single game. Thus, if companies make profit over time, this is where playing retention is a valuable asset.

'Therefore it is clear that editors want users to keep playing their game' (Elie Rotenberg)

To evaluate revenues when it comes to F2Ps, Luban and Nevot (2012)² defines two methods: The Average Revenue per User (ARPU) and the Average Revenue per Paying User (ARPPU). Paying users are only 5% to 10% of the whole communities however representing 85% to 90% of editors' revenues. Even if non-paying users help F2Ps to be promoted through

¹ *Patterns of Choices on Video Game Genres and Internet Addiction* – Georgios Floros, M.D., M.Sc., and Konstantinos Siomos, M.D, Ph.D. – Cyberpsychology, Behavior and Social Networking, Volume 15, Number 8, 2012.

² *Le Modèle Free to Play* – Pascal Luban and Mickaël Martin Nevot - Communication Interactive et Ludique, V1.1.1, 2012.

word of mouth and peers recommendations, the respondent reported most F2Ps bet on their free customers turning into pay customers and that the results are astonishing.

‘When Riot Games (League of Legends) has published statistics on it, it was uplifting’ (Elie Rotenberg)

The research previously demonstrated the use of game design as marketing especially when it comes to Free-to-Plays. In the case of F2Ps, using game design as a tool to increase customers’ retention becomes not only beneficial but necessary.

Interestingly, a synergy has been developed with game design and F2Ps. Elie Rotenberg made it clear that a well-built F2P makes use of it in order to create a bond between users and game. He argues that increasing the importance of display toward other players is the key to create a successful F2P.

‘People gave more importance to online reputation. For me that is the main reason that the new model of F2P we know today has risen’ (Elie Rotenberg)

Therefore, competition has been defined as the main factor pushing users to video game addiction and according to the respondent aesthetic seems to play an important part of F2Ps’ immersion. Thus, putting eSport practice with its competitive tendency and F2Ps with their aesthetic side together should enhance Problem Video Playing.

4.4.2. Free-to-Plays and eSport

The website esportfrance.com reported a close link between F2P model and the practice of eSport. The respondent agrees to that statement adding that F2P revolutionized the video game ecosystem and in particular eSport.

‘Absolutely, I think it is even more than that’ (Elie Rotenberg)

Since F2Ps are access free, it helped build a base of active players, paying and non-paying users. Some of them promote games; the others contribute to developing it.

The findings demonstrate that high retention video games are essentially multiplayer, and these games' successes are due to mediatization; especially F2Ps. Elie revealed that eSport video games do not finance themselves with competition but use tournaments and events to promote their products. This will bring more users and therefore more potential paying users.

The respondent expresses that mediatization through new media such as streaming attracts investors that advertise through this platform as they would have done with any other sportive scene. Plus, editors use mediatization as a leverage to monetize their game. It creates a virtuous circle.

'This allows the competitive video game system to function' (Elie Rotenberg)

Interestingly, the main feature that pushes users toward video game addiction, competitiveness (Dave Westwood & Mark D. Griffiths, 2010)¹, is according to the respondent the main characteristic of F2Ps. It pushes players to invest in the game knowing that spending time on it will improve their performance.

'This is going to request more investment: time, energy or money' (Elie Rotenberg)

Therefore when it comes to eSport, engaged players will spend a lot of time in front of their computer to reach a certain status through training which is a tendency of video game addiction in accordance with Lemmens *et al's* (2009)² theory.

However, even if crossing F2Ps and eSport should pull users toward Problem video Playing, the respondent prefers putting aside the word "*addiction*". According to him recent studies demonstrated that it is a controversial notion. Spending an important amount of time and find an interest in video games as a hobby does not mean people are addicted.

¹ ***The Role of Structural Characteristics in Video-Game Play Motivation: A Q-Methodology Study*** – Dave Westwood, M.Sc. and Mark D. Griffiths, PhD – Cyberpsychology, Behavior, and Social Networking, volume13, number 5, 2010.

² ***What determines Video Game Use? The impact of Users' Habits, Addictive Tendencies, and intentions to play*** – Tilto Hartmann, Younbo Jung and Peter Vorderer – *Journal of Media Psychology* 2012.

What the respondent compares was finding video game as an interest like someone else would have found in any other sport, literature, painting, etc. In fact it is more complicated to defined if an athlete is addicted to its discipline because of the physical restriction: exhaustion, or if a CEO who spends 10 hours at work per day is subject to work addiction.

Interestingly, most important symptom of addiction is withdrawal from others in order to keep playing. The respondent went in the opposite direction to promote social aspect of eSport. F2Ps are bond to the practice of eSport but it does not necessarily mean that it carries its addictive aspects.

‘Clearly F2P characteristics have to base on communal and social emulation’ (Elie Rotenberg)

This section demonstrated what made Free-to-Plays a successful emerging business model for the last couple of years and displayed the bond eSport and F2Ps have. However, when interviewed, Elie Rotenberg was against using the word “*addiction*” that easily when it comes to users involved in their passion. There a conflict between theories and practice that leads to explore in-depth the eSport ecosystem to draw conclusive answers.

4.5. Objective 3 – Research Findings

eSport is considered as the equivalent of “*professional gaming*”, a professional setting that turns an hobby into a working environment (Michael G. Wagner, 2006)¹. When video game competition used to take place at local scale through Local Area Network (LAN) events, it was seen as entertainment. Since internet technologies have grown and allowed high speed broadband connection to worldwide broadcast any video at any time, video game competition took an unexpected turn: professionalism.

¹ *On the Scientific Relevance of eSports* – Michael G. Wagner - Department for Interactive Media and Educational Technology, Danube University Krems, 2006

This section explores eSport ecosystem to define its framework, its competitiveness on players and video games addiction resulting from it.

‘To explore the practice of Esport competitiveness on PVP.’

4.5.1. A competitive practice inside video game industry: eSport

Video game industry is nowadays the most important entertainment industry worldwide (Nagle, 2009)¹. Thomas #Zaboutine confirmed this statement specifying that video gaming is more important than both cinema and music industries put together. However the respondent stipulates this applies to public video gaming, and eSport is a really small part of video game industry that we cannot compare to mobile gaming (e.g. Angry birds), casual gaming (Nintendo Wii games) or even console gaming that represents the largest spectrum of video gaming at the moment.

‘There are companies with important turnovers, but it remains a small part of modern video gaming’ (Thomas #Zaboutine)

Although video game is considered as a popular leisure (Williams, Yee & Caplan, 2008)¹, it includes all kind of video game activities and the respondent clearly states the differences between video games that reach a large public and eSport games that represent only a small category of today’s gaming system. Therefore today’s kids, teenagers or housewives never heard about games such as: League of Legends, Starcraft 2 or DoTa. These eSport games are made for a specific category of players born between the 80’s and 2000’s.

‘To sum up it remains PC players targeting competitive online video games.’ (Thomas #Zaboutine)

However, according to the respondent, eSport has known a real revolution for the last five years since the release of the video game Starcraft, and keep on growing. This joins

¹ *What determines Video Game Use? The impact of Users’ Habits, Addictive Tendencies, and intentions to play* – Tilto Hartmann, Younbo Jung and Peter Vorderer – *Journal of Media Psychology* 2012.

Electronic sports' (2009)¹ words on online eSport games; they are becoming more popular due to their fun, convenient, unpredictable features requiring developing players' skills to master the games.

The respondents (Elie Rotenberg and Thomas #Zaboutine) both agree that streaming as a new media played a decisive role in eSport development since 2000's. From small LAN competitions, its professionalization allowed creating structures relatively big to move from an amateur to a professional status. These changes modified its environment by including currently professional players, WebTvs, event developers, commentators and editors. This phenomenon includes more actors since investors found an interest in this practice as a place to advertise.

Interestingly, according to Brett Hutchins (2008)², the World Cyber Games' (WCG) slogan extols the Olympic Games values but applied to electronic sport: *'Harmony, enjoyment through shared emotion'*

The respondent strongly disagrees with it. He replies that Olympic values have historical purposes to share a common passion for sport and thus avoid any tension between countries, this aimed for peace. However at that moment, there was no mediatization for Olympic Games, on the contrary eSport was built on it. There are only business goals when it comes to eSport.

'Its short-term purpose is to make profits.' (Thomas #Zaboutine)

Moreover, the respondent specifies eSport competitions are not organized events to entertain viewers and players; brand and game developers try to sell a product through investors. According to him eSport represents an environment where everybody wins, for the moment every actor of this scene finds an interest to make profits: pro players paid monthly, editors promoting their game, event developers making profits by selling entry tickets,

¹ *Comparison of eSports and Traditional Sports Consumption Motives* – Donghum Lee (Ball State University) and Linda J. Schoenstedt (Xavier University) – Journal of Research, volume 6, issue 2.

² *Signs of meta-change in second modernity: the growth of e-sport and the World Cyber Games* – Brett Hutchins (Monash University, Australia) – New media & society, Volume 10(6): 8851-869

investors through advertisement, paid commentators and finally podcasters that broadcast via Youtube, Twitch Tv, or any other video transmission platforms gathering viewers.

'If tomorrow you take out the money aspect, I do not think that Esport will have the same success' (Thomas #Zaboutine)

Thus, mediatization created eSport and the fact that everybody finds an interest in the sportive scene allows it to live for now. The respondent could not agree with WCG's slogan but think of eSport as an entertaining product targeting hardcore gamers instead of a universal federative entertainment field like Olympic Games are.

"It was born from passionate persons but this not a passion anymore." (Thomas #Zaboutine)

The findings demonstrate that mediatization is pushed and forced by editors to monetize their products. As previously seen, F2Ps and eSport games are bond; in this process monetization is through advertisement. Competitions rarely monetize editors, however the promotion competitions imply make them worth of interest for video game companies.

Both respondents agree that mediatization is a locomotive that sustains both F2Ps and eSport practice for now. The main purpose is to turn viewers into players and finally push those players to commit to their game and turn into paying users.

What we can see from this, is that eSport acts like a commercial creating needs and wants pushing or pulling viewers to try their products once or twice before becoming loyal to their brand. Like commercials, broadcasting eSport games regularly remind players to turn off their computer and consume their possibly purchased products.

Plus, as World Cyber Games' statement has been contradicted by the respondent, we can imagine that those values that went against Problem video Playing are not effective arguments anymore. Thereby we can consider that eSport is still a potential threat for video game users.

4.5.2. eSport competitiveness on Problem video Playing

Competition, defined by Fülöp (1995)¹, is the interaction process that implicates at least two persons in comparing their capacities on a given field. Therefore any multiplayer games possess a competitive aspect; the respondent tends to the same logic by highlighting that high retention video games are essentially multiplayer.

However, as previously seen, withdrawal aspect is the main symptom to Problem video Playing (Tilo Hartmann et al, 2012)². There is a contradiction between having withdrawal symptom and suffering from an addiction cause by confronting on regular basis other individuals.

Competitive aspects, such as skill and challenge, in video games were defined during the literature review previously seen, as the main features driving users to addictive tendency (King D. et al, 2010³; Westwood and Mark D. Griffiths, 2010; Paul J.C Adachi and T. Willoughby, 2011)⁴. Problem video Playing (PvP) is therefore subject to the new practice of eSport putting forward players in a framework based on competition.

It goes without saying that eSport should naturally tend to increase video game addiction toward players committing to it.

Interestingly, the respondent (Thomas #Zaboutine) defined PvP and eSport as a complex issue. Needless to say, to reach a high level of playing, players need to tend toward addiction due to the number of players that could reach dozen of millions. To distinguish themselves from others, only skills can make the difference in highly competitive games, and only the fiercest and talented players can pretend to become professional players.

¹ **Social representation of competition, fraud and academic cheating of French and Hungarian citizens** – Gábor Orosz – Ph.D Dissertation of Classical System for the University of Reims, 2010

² **What determines Video Game Use? The impact of Users' Habits, Addictive Tendencies, and intentions to play** – Tilo Hartmann, Younbo Jung and Peter Vorderer – *Journal of Media Psychology* 2012.

³ **The Effect of Video Game Competition and Violence on Aggressive Behavior: Which Characteristic Has the Greatest Influence?** – Paul J. C. Adachi and Teena Willoughby (Brock University, Canada) – *Psychology of Violence* 2011, Vol. 1, No. 4, 259 – 274

⁴ **The Role of Structural Characteristics in Problem Video Game Playing: A Review** – Daniel King, Paul Delfabbro and Mark Griffiths – *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 4(1), article 6, 2010.

‘Therefore they must necessarily reach, not in the medical sense, an addiction, bound with the game to spend enough time to obtain professional skills’ (Thomas #Zaboutine)

However, the respondent considers this is not an addiction in a medical sense; this is in order to obtain professional skills. In fact considering spending time on a video game to become a pro player can be compared to a student spending same amount of time working on its project to get his degree. Consequently seeing video gaming as a career path presents the same objective a student have: obtain a status to get a job.

This is where academic literatures on video game addiction find their limits on the subject of eSport. When Dave Westwood and Mark D. Griffiths’ (2010)¹ demonstrated that being ‘*motivated to recommence gaming at the next earliest opportunity*’ as a sign of Problem video Playing; the respondent states that moving from an amateur hobby to an occupation changes everything. Gaming situation is not anymore pleasant and can be considered as duty.

‘When we reached a professional status we went from a game to a job’ (Thomas #Zaboutine)

Thomas #Zaboutine demonstrates that pro players are subject to training for hours, getting orders from their coaches (e.g. Fnatic is a European team having 3 coaches) as an executive would have from his manager. Therefore we consider them working, playing as a living.

Interestingly, playing games as a living goes against Wood et al. (2004)² argument emphasizing the major difference between video games and slot machines is money purposes. However this assertion is not as relevant as it used to be now that eSport practice can be profitable. Thus, this could increase video game addiction since money is now involved in video gaming.

¹ **The Role of Structural Characteristics in Video-Game Play Motivation: A Q-Methodology Study** – Dave Westwood, M.Sc. and Mark D. Griffiths, PhD – Cyberpsychology, Behavior, and Social Networking, volume13, number 5, 2010.

² **Game design as marketing: How game mechanics create demand for virtual goods** – Juho Hamari and Vili Lehdonvirta - *Journal of Business Science and Applied Management*, Volume 5, Issue 1, 2010

Yet, the respondent specifies that players are paid based on results, not according to the time they spent in front of their computer. Thereby money aspect are not influencing pro players to spend more time playing as it would be the case for any individuals trying to win in a casino.

‘The remuneration in the contract is not based on how many hours they play, commonly it is based on results but every structure decides of its policy’ (Thomas #Zaboutine)

Like any other human being, working is a not always an easy task, this is why playing cannot be considered as a leisure anymore when it comes to professional gaming. Consequently, the respondent declined any type of PvP among professional gamers, or according to him we should consider other athletes as addicted to its sportive practice. In fact the time spent on playing is considered as professional sport rigor.

‘These players do not want to play all the time; they also want to rest and go out.’ (Thomas #Zaboutine)

The findings brought up an issue about academic literatures still considering any users spending time on video game products as “*Hardcore gamers*” and never mentioned the possibility of defining these individuals as professionals.

In addition, despite Lemmens *et al*’s (2009)¹ sayings considering excessive amount of time playing as a characteristic of addictive tendencies, findings demonstrate professional players are not paid according time spent playing but based on results. Therefore some players “*work*” 2 to 3 hours per day without being pressured by their coaches or investors. However if they are not able to perform well during competition seasons, they will be asked to train more.

However eSport structures are aware that players can only display their best capacities when they are in good shape. Therefore well they play too much they may be asked to stop before reaching an exhausting state. According to the respondent, pro players spend around 5 to 6 hours per day, which is practically nothing compared to any other job.

¹ *What determines Video Game Use? The impact of Users’ Habits, Addictive Tendencies, and intentions to play* – Tilto Hartmann, Younbo Jung and Peter Vorderer – *Journal of Media Psychology* 2012.

‘An executive who spends 7 to 12 hours on their computer working, which is more dangerous for his health’ (Thomas #Zaboutine)

Thus, some eSport professionals do not spend that much time playing as it would be thought; of course some of them need more training sessions. However if a paid player is not capable of being as good as others, he will be dismissed like an employee in any regular company. Therefore few cases displayed pro players spending more than 10 hours per day training at gaming houses.

The findings go in the opposite direction with Donghun Lee and Linda J. Schoenstedt’s¹ study about impact of competition and skill having a statistically significant impact on time spent on eSports games. What Donghun Lee *et al* did not specify is that their results can be applied to players trying to become pro players, but cannot be applied to individuals having already reached this status.

From Chi-Ying Chen & Shao-Liang Chang’s (2008)² point of view on Problem video Playing, narrative (interesting background story) was a major feature impacting it. This looks similar to people founding themselves engrossed in a book or a movie, time passes without realizing. The respondent denied this theory when it comes to eSport, pro players are considering playing as their job and do not take refuge in it. Therefore inside the eSport practice competitiveness as well as narrative, are not features impacting Problem video Playing.

‘There is no parallel universe in competitive gaming so it is hard to melt into it’ (Thomas #Zaboutine)

However, Thomas #Zaboutine admits eSport adrenaline is addictive but it is also exhausting, this why pro players usually take breaks and spend a lot of time evacuating this stress by partying. The respondent compares video game addiction to other drugs addiction,

¹ **Comparison of eSports and Traditional Sports Consumption Motives** – Donghun Lee (Ball State University) and Linda J. Schoenstedt (Xavier University) – Journal of Research, volume 6, issue 2.

² **An Exploration of the Tendency to Online Game Addiction Due to User’s Liking of Design Features** – Chi-Ying Chen and Shao-Liang Chang - Asian Journal of Health and Information Sciences, Vol. 3, Nos. 1-4, 2008

temptation is stronger depending on your situation and states that if professionals tend to PvP, it is mostly due to their personal situation.

'It is definitely a case-by-case issue depending on their professional and personal situation, and their ability to resist to the temptation of playing: these are real factors.' (Thomas #Zaboutine)

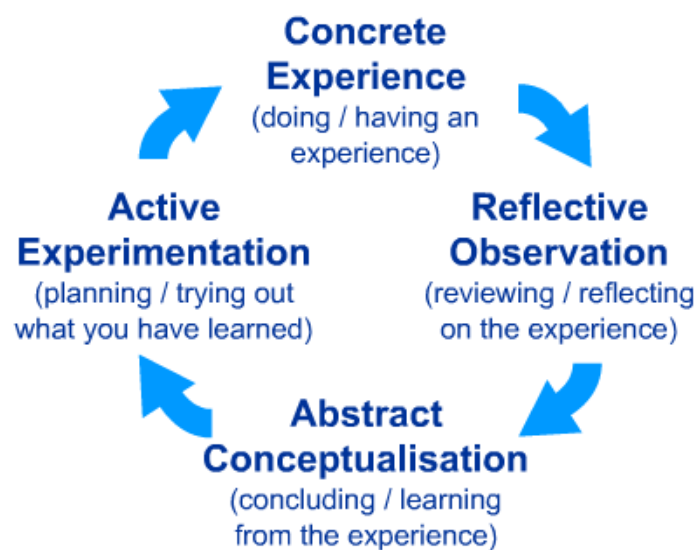
To conclude, eSport reveals not to be an addictive practice for players. It is crucial not to confuse users and professional players. In fact eSport games tend to be a real threat pushing people toward addiction due to its tremendously competitive characteristic.

However, the eSport practice itself, inside its ecosystem, professional players do not tend to Problem video Playing at all since it is not a game anymore, it is an occupation.

The findings demonstrate a significant difference between being inside the eSport environment and outside it but still consumption eSport games on Problem video Playing

5. Self-Reflective Approach to Learning

There is a growing demand from companies for their employees to learn from their experiences, mistakes or observations. While making my research data collection (both primary and secondary) I had to analyze written data, having experiences by interviewing people, reviewing these interviews and draw conclusions from it. This process is close to Kolb's (1974)¹ learning cycle.



In 1986, Honey and Mumford² developed four different styles to learning based on David Kolb's work. Even if they used different words to describe each stage, the similarities between these two theories are greater than the differences.

- **Activist:** Open-minded, enthusiastic about anything new, always looking for another activity, involved, do not think about consequences, and thrive by challenges.
- **Reflector:** Low profile, observant and ponder, take opinions in consideration, postpone decision making process.
- **Theorist:** Observant, methodical and logical, relay on theories/models/basic assumptions, rational, perfectionist, detached from the others.
- **Pragmatist:** Keen on trying out new ideas/theories/skills, put ideas into practice, impatient with open-ended discussions, practical.

¹ *Experiential Learning: Experience as the Source of Learning and Development* – David A. Kolb – Prentice Hall, Inc, New Jersey, Englewood Cliffs, 1984.

² *The Manual of Learning Styles* - Honey P. and Mumford A. – 2nd Edition, Maidenhead, Peter Honey, 1986.

After practicing introspection, I noticed something different about my way of analyzing information that comes to me since I undertook this dissertation. From our first methodology class at the Dublin Business School, our teacher taught us that the English way of learning differs from the French one, and he was right.

Before having undertaken this dissertation I used to draw conclusions from evidences and trust any affirmation since it was claimed by a professional. From now on, I am able to compare methodologies, theories and information from different sources. This way of thinking comes naturally and I start questioning every data I collect until I fully compared it to draw significant conclusions.

Even if I find myself creative and have a lot of ideas for new projects, I identified myself as a theorist person, taking step back to have a better overview of things I analyze and study. I am a methodical observant that tries to follow a guideline to avoid missing important aspects related to my project because even the greatest ideas can fall apart if we rush things to it without having a clear process to make them a success. Having this approach may involves losing time to step back and analyze in-depth the situation in front of me, but it will avoid falling into traps of hasty decisions that could lead to irreversible failures.

What I learnt during my dissertation phase will be useful for both my personal and professional life.

Professionally, I will be able to make the right decisions when the company I work for has to make a strategy choice. This will have an important impact when it comes to develop/invest in a business project. Now, I am confident in myself for further decision making due to this new process I internalized during my master thesis.

In my personal life I will be able to evaluate different situations; exchange with people without being stuck in my position now that I am aware that different point of views may bring the truth behind every question; and finally I will keep on learning and moving forward because I will be able to acknowledge and accept everybody's statement and relativize their authenticity instead of locking myself into my single opinion.

As an example, I was certain that the Esport practice carried the Olympic Games values since it was published in an academic journal and quote from the WCG (World Cyber Games). However after interviewing Thomas #Zaboutine, he explained to me that it was not

the case at all and there were only business purposes around Esport competition. When he started explaining why, everything made perfect sense, that is why my vision on the subject has changed and I started reevaluate my position about eSport.

Kolb's learning cycle can perfectly be applied to this example with **abstract conceptualization** that eSport has Olympic values to my **active experimentation** by interviewing #Zaboutine. This result in learning that I was wrong eSport has before everything else business purposes that I qualified as my **concrete experience** and began to have a **reflective observation** on the subject.

According to Aronson L. (2010)¹, '*critical reflection is the process of analyzing and reframing an experience to make an assessment of it for learning (reflective learning) and/or to improve practice (reflective process)*'. My approach to learning I used to have before undertaking my dissertation did not include to have second thoughts on what I learnt before. Now that I absorbed this new critical reflection process, I am able to improve my analyzing approach for upcoming tasks and studies.

Biggs (1999)¹ added that having a self-reflective approach is not only acknowledging who we are/were but and what went wrong about our certainties but it includes also who we might have become. Surely I have changed my state of mind since the first day I stated working on this master thesis. I went from a credulous way of thinking that absorbed any information I read, being taught and saw; to a skeptical approach of what I am studying, considering every data as '*part true and part false*' before drawing any hasty conclusions.

Houle (1980)² and Brookfield (1983)² identified two aspects of reflective to learning experiences.

On the one hand it is the '*sort of learning undertaken by students who are given the chance to acquire knowledge, skills and feelings in an immediate and relevant setting*' Brookfield (1983). While reviewing academic literatures, I was confronted with a lot of background theories. These theories included many interpretations from different angles to a

¹ **Reading and Understanding Research** – Lawrence F. Locke, Stephen J. Silverman, Waneen W. Spirduso – 3rd Edition, Sage Publication Inc, 2010.

² **Encouraging reflective learning: An online challenge** – Kate Henderson, Ksenija Napan, Sylila Monteiro – Beyond the comfort zone: Proceedings of the 21st ASCILITE Conference, 2004

known problem, situation or environment. This is where it was important to me to have an outlook of all affirmations I found relevant to my dissertation to define which are true, false or contradicted. Having a theorist approach to the data I collected helped me analyze statements that will help me define the core issue. In my case I was able to highlight competitiveness as the main source of Problem video Playing and to compare it to my field study on the eSport practice.

On the other hand, the second, learning is the '*education that occurs as a direct participation in the events of life*' (Houle, 1980)¹. Before working on my project I would have assumed that eSport would be a real threat by encouraging Problem video Playing. However, after working on my field study and interviewed #Zaboutine and Elie Rontenberg, I noticed that I was wrong because of my former lack of perspective. The fact that I was not an active player in the middle of the eSport environment prevented me from having a clear insight of what it was really about, even if I am passionate about video games and keep myself well-informed of this sector. From now on, I learnt to avoid assumptions and decided to collect information at its source.

Finally, I undertook this dissertation with an academic goal: to graduate my master level. However this would have brought me more than a diploma but also a new way to undertake any upcoming personal or professional challenges. Reflection involves reconsidering what I learnt due to the fact that everything is moving and changing. Many employees have to relearn their profession due to technology changes (e.g. web 2.0 to marketer), it is uneasy to unlearn what we used and acquired to start considering to change. Fortunately the challenge that was this dissertation gave me the tool to have a self-reflective approach to what I face in the future.

¹ *Encouraging reflective learning: An online challenge* – Kate Henderson, Ksenija Napan, Sylila Monteiro – Beyond the comfort zone: Proceedings of the 21st ASCILITE Conference, 2004

6. Conclusion

Video game has become the most important entertainment industry worldwide. It invaded every household, and changed people consumption especially kids and teenagers willing to have at least one computer or video game console at home instead of a foosball table. Since the 80's, video game addiction was a concern to scientists and was a topic explored from many angles.

In one hand, before the emergence of Free-to-Play business model, game design goals were to entertain players in order not to bore them. This model proved to be successful due to its monetization system over time and may be the only future of video game due to its advantages compared to traditional models. Nowadays, video game companies implement in their strategy game design as a marketing tool facilitating playing retention that will increase their future revenue. Manipulation through game design existed since the beginning of video game, unless it did not imply business purposes.

In another hand, although eSport practice has been democratized and is closely bond to F2P models, it does not mean it carries Problem video Playing issues. Despite the competitive aspect of this practice, the social emulation resulting from it makes eSport a paradox for video game addiction. However eSport is takes a really small part of the video game industry, it targets only a few potential customers and since F2Ps features include increasing potential customers due to its free access, we are likely to see it grow during the following years.

Yet it is misleading to consider eSport as regular hobby like video gaming used to be. The research findings demonstrated that it was more about business purposes than sharing a common passion for gaming. eSport is in the end a showcase for editors to promote their products instead of advertising through traditional media.

Unfortunately, since eSport is still in its infancy, it will need to be followed during the next years to completely identify the impact of this practice over time. Also, exploring eSport ecosystem seemed not enough to define if editors have long-term plan for it and their businesses. Finally, the eSport ecosystem is a win-win situation to all parties involved in it for now, but this may change in a couple of years.

Exploring a cutting-edge subject helps creating solid bases to future research; however it needs to be completed due to its lack of hindsight.

7. Recommendations

7.1. For academic researchers

I recommend to any future researcher on the subject of video game and especially eSport, to explore in-depth the next emerging business models that would have an impact eSport ecosystem.

It is also interesting to investigate eSport structures such as teams and events to examine eSport impacts of participants.

Previously seen, technological advances are guiding video gaming since the beginning. Cloud gaming is almost polished and this could revolutionize it, technology outcomes is one of the main influencer of the biggest entertainment industry.

Finally, eSport is well developed in South Korea with television channels dedicated to broadcast eSport games and competitions. Then it would be interesting to determine if democratizing that much eSport could lead to today's sport channel. Football games or any other traditional sport broadcasted do not use television as a showcase to sell products as eSport does at the moment. Even if there is advertisement in today's football games, it is not the main purpose. Consequently, making eSport too casual could destroy its main objective, promoting.

7.2. For professionals

Video gaming is a very competitive industry; it is hard for new entrants to find their place. To professionals willing to create their own video game structure, F2Ps model will allow you to start slowly but riskless.

Nowadays, game design should not be an option when it comes to creating a video game especially when entire business models are built on it. Video game producers should have behind every in-game detail, a marketing strategy. This aspect helps investors to have a better understanding of your explanations, because investors do not think as a gamer, they think with numbers.

The use of eSport as a showcase for starting companies may be an opportunity, but I do not recommend it. Creating an eSport game needs to have a lot of expertise to be developed; however there are only few competitive games broadcasted (around a dozen). This niche sector could produce success to companies willing to take the leap.

As for academic researchers I recommend to every professional to pay attention to technological advances that could directly influence their businesses.

8. Appendices

8.1. References

8.1.1. Academic journals

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8.2. Gantt chart

Tasks/Time	June				July				August				September				October				November				December				January	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
Holiday																														
Read literature																														
Finalise objectives																														
Read methodology literature																														
Draft literature review																														
Complete literature review																														
Qualitative study																														
- Make appointments for interviews																														
- Make interviews																														
- Analyse qualitative data																														
Writing																														
- Plan & Introduction																														
- Chapters																														
- Conclusion & proofreadings																														
Submit to tutor and await feedback																														
Print & bind																														
Submit																														
Key dates																														
Key dates:																														
1 = Submit proposal																														
2 = Begin fieldwork																														
3 = Complete fieldwork																														
4 = Final submission																														

8.3. Project Costing

I was planning to go back to France to write my dissertation and since organizations or people I wanted to interview were not located over there, I planned to travel to interview them face to face. However I managed to get Skype interview instead, at the end it was benefic to every party because I did not have to spend money to come to them and they saved time (interviews were done by night). I saved around €250 I was planning to spend for my field work. Yet, I traveled to Dublin to see my supervisor one day.

To print my dissertation in 2 coil-bound paper copies, I spent around €75. I traveled to Dublin to submit my work to make sure it will be given in time.

I was planning also to have a quantitative field study, but after working more in-depth I noticed that it was going to be useless and it was more interesting to focus on qualitative data. In that way I did not spend €70 on the CAQDAS software to analyze quantitative data and €50 for a breakfast to every participant of my structured interviews at Epitech (informatics school in France). Plus, my quantitative study was supposed to include a survey broadcasted on Facebook Ad, which would have been expensive.

At the end, I spent €340 for my dissertation due to my trips to Dublin for flight tickets, food and hotel expenses instead of the €450 estimation I made several months ago.

8.4. Watson Box

What? - I am interested in learning more about the video game field. - I wonder if video game addiction can be used by companies on purpose. - With the E-sport, does the addiction problem previously studied need a more important focus on?	Why? - Since video games are more popular, people should be concern about this kind of issue. - Video game companies and individual person would be interested by this topic. - I have myself been subject to this matter; I am invested in this project. - The video game industry has become so important that it cannot be ignored.
How – Conceptually? - Use of academic researches to increase my knowledge on the subject. - Comparaison between different theories to draw conclusions and find unfilled gaps. - Find loopholes in previous experiments. - Create bonds between researches and develop hypotheses.	How – Practically? - Having a qualitative study to obtain information from the video game industry influencers, marketers, and associations via interviews. - Having a quantitative study with a survey that I will broadcast to a specific target (people playing video games quite a few).

8.5. Transcription Interviews

8.5.1. Thomas #Zaboutine's interview

- **Laurent Amaoua:** Hello Thomas #Zaboutine, Thank you for answering to my questions.
- **Thomas #Zaboutine:** Hello
- **Laurent Amaoua:** This is my first question *'According to you, nowadays, how important is eSport in the video game world?'*
- **Thomas #Zaboutine:** I would say in my humble opinion, eSport is a very small part of the video game industry that has a strong growth. We need to take a look at it from the inside and the outside. Inside, eSport is something which, the last five years, since the release of Starcraft and a little bit before, has known a real revolution thanks to the new media that is streaming, and today, has we knew it at the beginning of 2000's with small LAN competitions, by its professionalization has created structures big enough to get from amateur eSport to professional eSport and significant amount of money is created by this practice and we have professional players, commentators, WebTV, event developers which I am and I never play in a professional stage. Therefore there are people paid and companies with important turnovers but it remains a small part of modern video gaming. We must know that nowadays video game industry is more important than both the cinema and music industry together. It is the world first media of entertainment and it has been a while, therefore public video gaming is larger than eSport. For example Grand Theft Auto 5 (GTA) and Call of Duty, the first and second most sold media in a week, they are social phenomena especially GTA since the third edition in 2000, therefore video game in general is larger, more lucrative and reach a larger scale of the population whether it is mobile gaming, like Angry Birds, casual gaming with Wii console, or occasional games but competitive like FIFA or hardcore gaming. Then, housewives do not know League of Legends, Starcraft 2 or DoTa, they are games reserved to a specific category of players that grew up between the 80's and 2000's with a certain state of maturity. To sum up it remains PC players targeting competitive online video games.

- **Laurent Amaoua:** Alright, that's perfect. For the next question, it will be more specific to your area as a League of Legends podcaster, I wanted to know, *'since League of Legends pro players spend a lot of time playing, can we consider them as addicted?'*
- **Thomas #Zaboutine:** This is a complicated issue, in fact to reach a certain level of playing we need to have a type of addiction, this is a game with 10 million players with a high competitive tendency, only the most fierce and talented players will stand out, this is absolutely certain, and these players will become pro. Therefore they must necessarily reach, not in the medical sense, an addiction, bound with the game to spend enough time to obtain professional skills. But when we reach a professional status we went from a game to a job, that means players in gaming houses wake up in the morning, are subjects to trainings for hours, have orders and coaches, for example Fnatic (best European team) has 3 coaches. Thus they work, like me every morning or a professor when he goes teaching at the university, these players do not want to play all the time; they also want to rest and go out: Professional sport rigor applies here. According to me there is no addiction, but if some pro players are addicts, then is the football player is not as much addicted as them?
- **Laurent Amaoua:** Ok! The third question: *'Does the Esport coach have an impact on game time pro players?'*
- **Thomas #Zaboutine:** Yes! Hmmm no! In fact no, nowadays eSport, even if companies pay pro players, as far as I know the remuneration in the contract is not based on how many hours they play, commonly it is based on results but every structure decides of its policy. When a structure hires players it is to increase its visibility and sell it to an advertising agency. It is based on results, then if some players play 2 to 3 hours per day to achieve what other players would with 15 hours per day, it will not be an issue to their coach, but if they have bad scores/results and do not practice, since they are paid there will be people asking them to do it. To come back to the original topic of addiction, if there are cases of addiction, they are personal and we cannot blame pro players' investors to be the reason of it.
- **Laurent Amaoua:** Ok, then the coach does not stop someone when he plays too much and should rest instead, or the other way around, push him to play more?

- **Thomas #Zaboutine:** No, no I do not think so because players have to display in their best capacities and shape, they play around 5 to 6 hours per day compared to an executive who spend 7 to 12 hours on their computer working, which is more dangerous for his health.
- **Laurent Amaoua:** All right, fourth question: *'According to the World Cyber Games (WCG), eSport values are the same as Olympic Games which are harmony, pleasure and share emotions, do you agree?'*
- **Thomas #Zaboutine:** **Silence** absolutely not. I definitely disagree simply because Olympic values are historical built by people who wanted to make sports a worldwide practice and share their passion and mediatize what was not before. On the contrary Esport, nowadays, its short-term purpose is to make profits.
- **Laurent Amaoua:** I see.
- **Thomas #Zaboutine:** We have to take into consideration that eSport is not people's desire to organize events and tournaments to entertain others, they are brands and game developers that sell a product through investors that "pay players" and podcasters in an environment where everybody finds his interest but if tomorrow you take out the money aspect, I do not think that eSport will have the same success. Maybe it eSport shares the same values but only for the WCG but that represents a very small part of eSport and honestly for me eSport is more an entertaining product targeting hardcore players than universal federative entertainment field.
- **Laurent Amaoua:** Interesting, so it has more a promotional side than sharing a passion.
- **Thomas #Zaboutine:** Yes exactly, it was born from passionate persons but this not a passion anymore.
- **Laurent Amaoua:** All right, last question: *'According to scientist studies, the most addictive aspect in a video game is the competitiveness, between pro and casual players, which will tend more easily toward this addiction?'*
- **Thomas #Zaboutine:** This is a tricky question; it will depend on the context. Like other drugs some people will succumb to it depending on their situation, poor or not, single or in a relationship. I think that pro players have less chance to tend to it because it is a job because they do not take refuge into the game; there is no parallel universe in competitive gaming so it is hard to melt into it. Ok, the adrenaline is addictive but it is exhausting and pro players take breaks and spend a lot of time

partying to evacuate this pressure they carry. It is definitely a case-by-case issue depending on their professional and personal situation, and their ability to resist to the temptation of playing: these are real factors.

- **Laurent Amaoua:** Perfect! Well this interview is over, thank you for your time.
- **Thomas #Zaboutine:** You are welcome Laurent, have a good day.
- **Laurent Amaoua:** You too.

8.5.2. Elie Rotenberg's interview

- **Laurent Amaoua:** Hello Elie Rotenberg, thank you for answering to my questions.
- **Ellie Rotenberg:** Hello!
- **Laurent Amaoua:** I will start with the first question: '*What are the latest emergent business models used by the video game industry, and are new business models being developed?*'
- **Ellie Rotenberg:** Ok, well I didn't prepare the questions but I will try to answer as it comes, therefore the model that revolutionized the video game ecosystem, and more specifically the eSport ecosystem I will explain why after, is the Free To Play (F2P) model. The principle is that anybody can play freely at it and the monetization is made by extra contents in game. There are different types of F2P, the historical F2P had specifications that we call today '*Pay to Win*' that means that anybody could play the game and when we spend money on it we get stronger in game, this model wasn't really successful in Europe or America but was in Asia. I didn't work in Europe especially because the perception of an equitable and fair game completely dissociates inside and outside game element. Therefore everything that is brought from outside, in this case money to increase our performance, is frowned upon. The new models provide a system to buy items in game, like equipment, visual display unit, or in-game mode. We can only buy elements that will not modify the game rules. That what I call the modern F2P.
- **Laurent Amaoua:** Ok ok I see.
- **Ellie Rotenberg:** There is also a hybrid model that allows people to buy everything with real money or in-game money, but it is of course quicker with real money. This model was popularized in online gaming, because online games when they are well-built on this idea of F2P, they increase the importance of display toward other players

like MMO or FPS kind of video games where people will attach a lot of importance to their appearance and reputation.

- **Laurent Amaoua:** So it is a way to distinguish from others?
- **Ellie Rotenberg:** Exactly. So even if buying specific clothes that will not make someone stronger, the eager to be different takes over. This model, **hmmm** there was a specific timing for this model since three years with the broadband connection and the development of streaming technology, online reputation has grown to another dimension. So between different social networks and the streaming allowing players to be seen by 10,000 persons at the same time, people gave more importance to online reputation. For me that is the main reason that the new model of F2P we know today has risen. Of course the best example is League of Legends.
- **Laurent Amaoua:** Well my second question was about FP2: *'F2P have a specific business model, can you tell me a little more about it and what makes them addictive?'*
- **Ellie Rotenberg:** Well I partially answer to this question right before but I prefer to set aside the word *"addiction"* because recent studies have shown that video game addiction is a very controversial notion, if we consider being addicted when spending a huge amount of time and find in it an interest like we could find in another hobby, clearly F2P characteristics have to base on communal and social emulation. This is going to request more investment: time, energy or money. The main F2P characteristics that push to this investment are: the competitiveness (local scale or tournament), other characteristics based on cognition biases that make players keep investing. The idea is that the more we invest in the game, the more we feel losing if we stop investing, and this is of course a vice circle. Even if Blizzard MMORPG World of Warcraft is not a F2P, it uses this approach.
- **Laurent Amaoua:** Ok that is really perfect. I have a lot of information to work on! Now we go on the third question: *'According to esportfrance.com F2P model and Esport practice are closely linked, do you agree with this statement and why?'*
- **Ellie Rotenberg:** Absolutely, I think it is even more than that. High retention video games are essentially multiplayer, multiplayer video games success is associated to mediatization, especially for F2P, and finally eSport video games have rarely a monetization from the competition itself, however it acts that way to display their product to bring more and more players that will end up as *"pay players"*. What

mostly finances competitive games is that the mediatization enables advertisers to invest money on games like they would for a sportive scene, and at the same time this mediatization is pushed by editors to monetize their games. This allows the competitive video game system to function.

- **Laurent Amaoua:** Ok superb! We keep on the fourth question now: *'I wanted to know what game design elements make a game more addictive than another?'*
- **Ellie Rotenberg:** Well, it will not be easy to avoid repetition with what I said previously. To give you factual elements instead of conceptual like before, the most obvious systems are incremental systems, which means the more we play the stronger we get, with an exponential decay system to gain power with invested time. Well, the more we play the stronger we get, but to past that level and get a little bit stronger we will need to spend definitely more time than before. But this exponential decay has to be well calibrated to avoid creating in new players that start the game the feeling that they will not be able to catch up with other players. This works with a progressive devaluation on the value of time invested. To give you an example, during the first 6 months of the game we will need to play a specific amount of time to reach a certain level, and for the next 6 months we will need half that time playing to reach the same level. World of Warcraft is still a good example with its expansion packs that more or less reset powers.
- **Laurent Amaoua:** So new players can catch on with old players.
- **Ellie Rotenberg:** Yes. But it is very difficult to apply since new players can have the feeling of being able to catch up with older players but these older players need to feel they did not waste their time before. This relies usually on expansion or season methods to reset power and avoid blocking new entrances.
- **Laurent Amaoua:** That is great. And I did not have this information in my research about game design. The interview is almost over; two questions remaining, this is the fifth one: *'When can we consider 'addictive' game design choices are a marketing strategy?'*
- **Ellie Rotenberg:** Most of F2P bet on the fact that a part of their free customers will become pay customers, not everyone and the percentage depends on the game: 5%, 10%, 15% I do not know exactly. When Riot Games (League of Legends) has published statistics on it, it was uplifting. Money invested by players keeps growing according to the time they spend on the game. So the more they play, the more they

pay. Therefore it is clear that editors want that people keep playing their game especially since marginal cost (like server maintenances) are really low compared to the upfront game development. So it is vital that an editor keep attracting their customer and increase their retention when it comes to F2P model, in opposition of the AAA model that only sell the game once and then no more income after from that same customer.

- **Laurent Amaoua:** Ok! The last question: *'what are the marketing strategies and choices aiming to increase players' retention in front of their computer?'*
- **Ellie Rotenberg:** A classic example is to spread new contents instead of grouping them by long release cycle or expansion. Once again I will use the example of League of Legends which in my opinion really mastered his marketing strategy, new contents every week or two to create the illusion of novelty to push people back to the game. This fits F2P strategy to promote micro-transaction daily or weekly compared to macro-transaction we have with huge blockbusters like once a year: Call of Duty, Battlefield, etc.
- **Laurent Amaoua:** Well thank you a lot Elie for your time! This was a great help for me.
- **Ellie Rotenberg:** You are welcome Laurent. If you have any questions, do not hesitate to come back again!
- **Laurent Amaoua:** Thank you! Bye!