LITERATURE SURVEY

UNCOVERING THE GAMING INDUSTRY'S HIDDEN GEMS

A Comprehensive Analysis Of Video Game Sales

ABSTRACT:

In this project, we examine the video game sales by gaming platform in NA, EU and JP from 1980 to 2016. As the home video game industry has rapidly matured and become established as a forefront facet of interactive entertainment in the home, we seek to determine what aspects of the video game market seem to most impact sales.While this post represents only a small portion of the analysis possible with this dataset, we noted several important observations.

INTRODUCTION:

Over the past 40 years, a veritable industry has grown up around the design, development, and delivery of video games for home video game consoles and the personal computer. Perhaps the most remarkable aspects of the advent of the video game industry are the rapid rise of the breadth and scope of the industry itself. The game can be recognized as a kind of service that provides game players with different experiences. With the continuous development of the game industry, more and more interdisciplinary knowledge and theories are being used.Here we can find the highest selling games using highest popularity in regions , bigger platforms, best game titles and popular publishers.

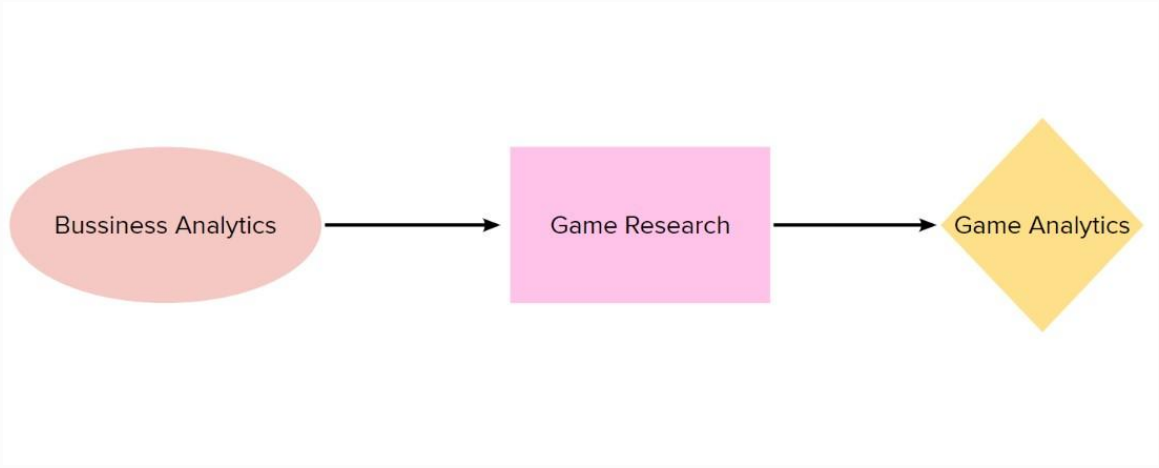
SURVEY OF THE LITERATURE:

It is important to state that the video game industry is both an entertainment industry and a Software industry, so there are different theoretical bases that can be used to shed Light on this subject. As our interest is in the determinants of video game sales, we found the literatures on genre, platforms and publishers be most relevant.

GAME ANALYTICS:

Game analytics is the process of identifying and communicating meaningful patterns that can be used for game decision making.Game analytics derives from Business Intelligence (BI).

The purpose of analytics is to solve problems, make predictions in business, help decision making, promote optimization actions, and improve business performance. the game industry starts with game developers responsible for developing the games. When the game is ready, they will find a game publisher to help with the game publishing. The publisher will publish the games through the game distributor and connect with potential players. As the traditional game value chain covers the whole game industry [10], it is reasonable to use it as the base for game analytics classification.



GAME PLAYER ANALYTICS:

Game player analytics focuses on the player itself. Traditionally, player research uses qualitative methods as part of practices and make different surveys about the player experience, satisfaction, and engagement. Therefore, most of these studies are conducted through different interviews, in-depth questionnaires, and observations.

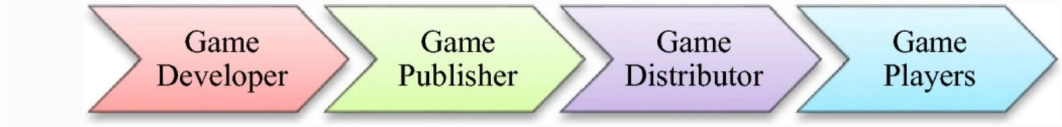
Player segmentation

As for the game players, game designers not only need to focus on the gameplay development, but also need to know who should be the potential players and what their requirements are. The goal of segmentation is to further classify the player groups and provides games more in line with the player requirements. In fact, players' needs for games are diverse, so the motivations for users to play games are diverse. These researches are based on the breakdown of the player

behavior and make the classification. Player segmentation can be used to target the motivation of different players during the game design process.

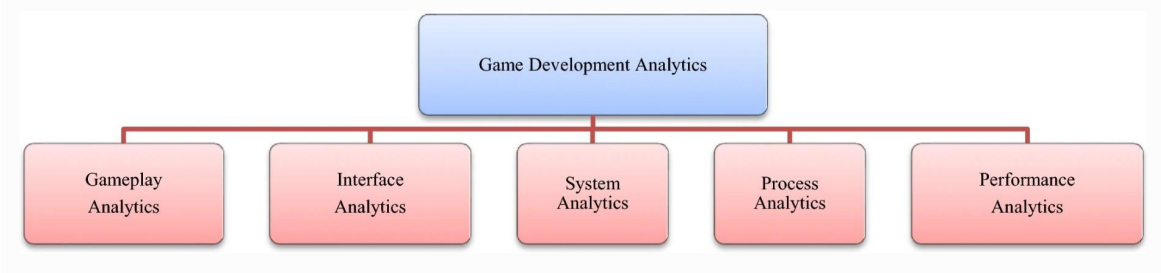
Player behaviors

Player behaviors include in-game actions and behaviors, such as navigation, interaction with game objects and other in-game entities. Player behavior research involves specific in-game behaviors throughout the game experiences.Through analyzing, we can make a conclusion that having the well-connected in-game social network and also the in-game interaction can improve player performance in solving game missions. In brief, player analytics is the foundation of game analytics. It not only can guide the game design process based on the player requirements but also can discover potential problems in game development. Player research is also vital for game publishing, which can give clear guidance about game optimizations. It also can be used to improve game retention, deliver more game revenue, and extend the game life cycle.



Game development analytics:

Game analytics has many applications in game development, mainly to monitor the process of game development. It includes some technical performance and indicators of game development, such as bugs and crash monitors.



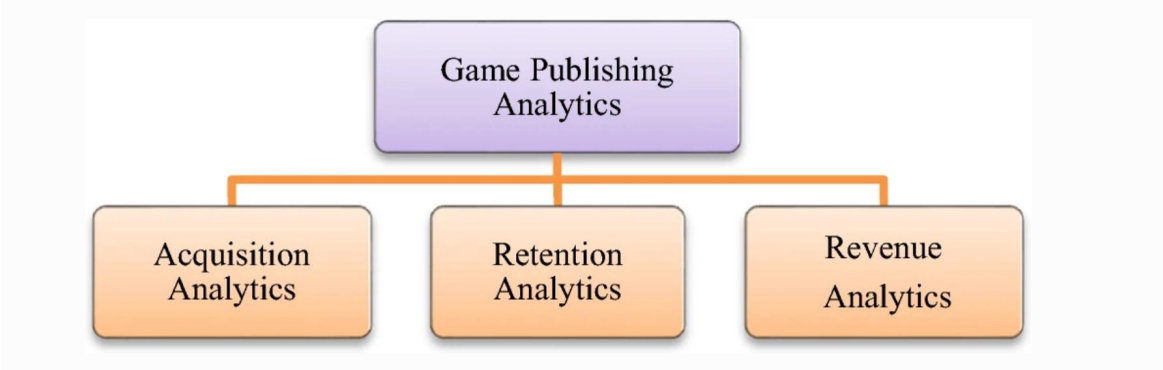
Gameplay analytics:

Gameplay is the core of a game that is used for representing how this game is played. It relates to the user's real behavior as a player, such as in-game interaction, items trade, and navigation in the game environment.

Interface analytics includes all interactions which player performs with the game interface and menus. It is usually be tracked by setting different game variables, such as mouse sensitivity, finger touch pressure, and also monitor brightness. System analytics covers all the actions from game engines and also the sub-systems, such as Artificial Intelligence (AI) system, in-game events, and Non-Player Character (NPC) actions. System analytics can be used to measure the effectiveness of the system design.Game process analytics focuses on the game development process and gives monitoring about the game development and provides guidance about the detailed game development process, such as using the agile development method to manage the development process.Performance analytics relates to the performance of game technical and software-based infrastructure behind a game itself. It includes the frame rate, the stability of the client execute, bandwidth, game build quality, and the number of game bugs found by QA testing.

Game publishing analytics:

Effective game analytics can help with the success of game release and marketing promotion and optimize the game in a targeted manner, extend the life cycle, and increase revenue. Acquisition analytics focuses on how to save the cost of attracting new users. It also pays attention to how many new players enter the game, how many players finish the tutorial, and how much money they spend on user acquisition.Retention rate is a vital indicator of measuring the stickiness of games. This benchmark not only measures how players are engaged in the game, but also can be used for evaluating the game quality. With the rapid development of the mobile game, it takes up the largest share in the game industry. As most of the mobile games are free, players can download at any time. Hence, for freemium games, the revenue is mainly from game items, such as In-App Purchase (IAP) or advertising.



GENRE:

Action games are classified by many subgenres. Platform games and fighting games are among the best-known subgenres, while shooter games became and continue to be one of the dominant genres in video gaming since the 1990s.Most of the earliest video games were considered action games; today, it is still a vast genre covering all games that involve physical challenges. For example, shooter games, fighting games, battle royale games, etc,.

PLATFORMS:

This is largely by design as hardware manufacturers, such as Microsoft, Sony, and Nintendo, have carefully developed a platform-based market where software sales subsidize relatively inexpensive hardware. Economists would call this a platform based market in that video game developers and publishers and video gamers each thrive in a market ecosystem based upon a common platform of use. For instance, it is not uncommon for a gamer to purchase a title on more than one platform, such as on the PC and the Sony PS3.

PUBLISHERS:

Large publishers may also attempt to boost efficiency across all internal and external development teams by providing services such as sound design and code packages for commonly needed functionality. Also, Nintendo's Wii console, though debuting in the same generation as the PlayStation 3 and the Xbox 360, requires a smaller development budget, as innovation on the Wii is centered around the use of the Wii Remote and not around the graphics pipeline.All significant console manufacturers since Nintendo with its NES (1985) have monopolized the manufacture of every game made for their console and have required all publishers to pay a royalty for every game so manufactured.

HISTORY OF VIDEO GAMES:

In the earliest days, video games were nothing more than curiosities on oscilloscopes and other primitive monochrome displays. In order to understand the dominance of video game consoles, we now explore the characteristics and nature of the common and prominent video game consoles. Personal Computer video games have also waned in sales in the 2000s, but remain an important factor in many gaming genres; prominently in Role-Playing Games, Massively-Multi-Player Role-Playing Games, Simulations, and some First-Person Shooter games. As the dominant platform in video games sales continues to be the home-use console games, the balance of this historical account will now focus on these console video game platforms. There are really only two players in this Market, if Smart Phones are excluded: the Nintendo DS and the Sony PlayStation Portable. Also, it is evident that the capabilities of the handhelds are far inferior to those of the consoles; this is to be expected of a portable device. As is the case

in consoles, the Sony device leads the Group technologically, but the lower-tech Nintendo device outsells the Sony device.

RESULTS:

From our survey we can understand the trends and methods to be followed to successfully release a game. It clearly mentions the player behavior and segmentation which can help the game creators in a better way. Also , publishing technics is mentioned which helps to clearly understand various publishers and their technics.

CONCLUSION:

Through the analysis of visualizations, we can conclude that Production of games in the past 40 years has arisen to peak in year 2008 but there is downfall since then due to increase in the production of smart phones through which various games can be played.