Sentiment Analysis of User Game: After play Analysis

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Abstract: *This research is to conclude the sentiment of the gamers and the sentiments of them in a whole game play. The evaluation of the information that you extract form the method of play. The player will have a score card and that will be considered as the information for the sentiment analysis report. The tally will be from the prefixed strategy of the genre of the game.*

The player will be evaluated for the improvement in the game for the upcoming round and can get a detailed analysis of the drawbacks and the flaws faced by the players. The tactic need to be detailed analysis for the improvement. This will also focus on the addictiveness and the player and the proper schedule to play the game and switch the play mode and the genre of game. So that the mood and the effect of virtual reality will be lessen and good mental health of a player.

Index Terms: Sentiment, Game genre, After play Analysis

I. INTRODUCTION

It is a common problem with the gamers that each session makes the gameplay better. It is always a challenge for the game developers and the designers to make levels of the game and it's about timing and tactics [TT 5.12], which helps the player to achieve the objective. The problem for the player is to achieve the objective to finish the game and seek for more. As the player need

To improve the skills, the timely entity makes the   player to kill time to either practice or brain tease oneself. The idea was to use the social media feeds and analyze the sentiment and the game perspective of the user. But "if you buy time for your reality social network then the virtual social network lureyou".

In this study we have analyze the user/player have the sentiment analysis out of the game play and the score result. The player will have score card generated which will have a sentiment report for the gameplay session. It need to be a package in STEAM Engine [2.3v] which could be easily patched with any compactible game. The use of the NLP algorithm to find a rough sentiment for furtherprocessing.

The result shows that the experiment and a user experience needs to have a suitable user for beginning as the AI for the field needs to be smarter that of his user.

II. BACKGROUND

The use of sentiment analysis is common in other aspect of computation and makes things more interactive and ease. But the game world have never experienced the use of analysis of moods/sentiment. The interactive world of entertainment experienced a lot of virtual fun, and Harko Verhagen [+1]. The first research in a brief manner but was more of a wireframe to bridge the word of Analysis & Game for better conclusions.

The previous research of cousin genre, helped the work flow forward. The success rate of the research will depend on the most user interactive and aiding solution.

The sentiment analysis first made the most basic step in the world of analytics. As it evaluated the most numeric categorized form of output. But to be exact of the random mind encounter. The AI evaluates the best of its kind. The report be so exact to the human encounter perception is bit difficult. The game world can be more specific with virtual surprises, but in part of making things better with more brain teasing ideas it needs cross field analysis. The scale of NLP can be well suggested with the scale of [0] to[4].

The score of three form as the suggested tags for the result score. The tag of Bad, Neutral and Good. The fact of over parsing for the score with certain phrase is not the role played by AI. The calculations are exact that the player agrees to the 100% match to the outcome.

A. Stanford NLP

The Stanford NLP allows to use the dependencies for the exemplar sentiment analysis with the key phrase analysis. The university team focused on the textual analysis. But later the team of Google and IBM worked on it to make the project more user friendly and made it work for various interdisciplinary modules. The team of researchers made it more valuable with a tag of royalty free.

The team which came up with this idea were to evaluate the emotions of AI and its further functionality. But came up with this basic outcome for all bit upgradation in the field of analytics. The idea of making a sentiment judge algorithm was to make the self-evaluation. Hence the drug driven part of mind can use it as anti-dote. The libraries used in the NLP have some categorized English phrases from all over the globe and can be standardized for other languages too.

The use of such words with negative meaning make an anchor for the whole sentence and the output as negative. And it also evaluates the idioms that have the direct algorithm working to give the best output.

B. Game genre in this study

This work states the player and the game should have sound interaction, and studying the sentiment of the player. This makes the approach towards player more clear and striaght. Which makes the understanding of self and to the game AI bolder.

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The research is towards the specifics genre games and work with such principle. As the work is specific with the genre of work. The application makes the use of the backend data from a session game play processed. The genre include a list will be further included in methods.

III. METHOD

The section content describes the specific approach of information gathering and analysis. We use method that is based on the same old principles. But the more specific and cross platform use made the research more validated and exact with the information. The quantitative analysis was done through the hypothesis of an algorithm named as Cobweb Fusion this was a web evaluation library to analyze the video files. But the analysis to any real-time video analysis with stats is still a research topic to be linked with.

A. Genre Based Study

The genre-based study makes sure that the games are released categorized within a genre head. The two major genre that we focused on and the analysis will be worth. The genre for research includes:

> Role Play Games (RPG)
> Action Games

Both the major genre of game also have the subgenre, and followed by sub-cross-genre which are the most tending in this era. The detailed analysis of each game needs to beclassified.

Role Play Games

The role play games are the pure game origin. They just come up with linear story line and the closest form of interaction with the character for a player. The sub-genre of the RPG will also specify the motive of the sentiment analysis. The major fields and the sub-genre areas:

> Action RPG
> Massively Multiplayer Online-RPG
> Tactical RPG
> First person party based- RPG
> Cultural Difference
> Choice

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- Cultural Difference
- Choice3.3. Section headings

B. Major RPG Sentiment Analysis:

The RPG with a major audience with the game that need of the after play analysis are the MMORPG, the player with a platform of n users. And they might seek the growth report and the performance aid report. The player can improve the gameplay. But the stats will be confidential, secured and limited. The limitation of the data to respective player maintains the data confidentiality.

The Tactical game play makes the game more difficult to win on. But when you tease your brain to another brain other side is not for growth and development. The use of initial games to set the AI as the replication of the player's mentality might be a teaser test which

Keeps on growing. And helps the player play at a much senior level.

The stats of each genre games are shared with the respective API to generate the data to be processed in NLP. This makes the intermediary dependency to process the result.
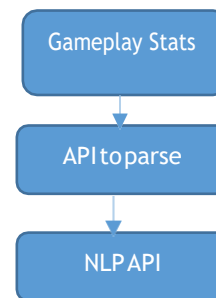

Fig.1 Dataflow Diagram

The dataflow model implies for all the aspect of game genre.

Action Game Play Sentiment Analysis:

The action game play are major addictive games or all kind of games and has a huge audience. The control of the gameplay tactics and the control over the rage and woe for the success and failure. The sentiment prediction may also predict to work on the aspect that the player needs to work on and a must loop hole patch. The action genre includes:

- Platform Games
- Shooting Games
- Fighting Games
- Stealth Games
- Survival Games

The action game works on various sub-genre. This makes the player to work on the respective field. The toggle between the genres of games make the mind tease but not at a expert level.

The survival in all the action games is the main motive of any player. The gameplay always have an objective and timeframe for each of the modules of game play.The combat games and the survival games are more of a cousin and only differentiated with the aspect of the enemy.

The survival game have the non-living and AI driven enemy. But the combat game can have either AI based or the enemy character can be driven by the player other side of the game wither opted or assigned.
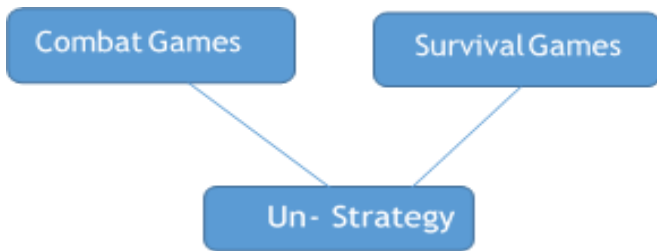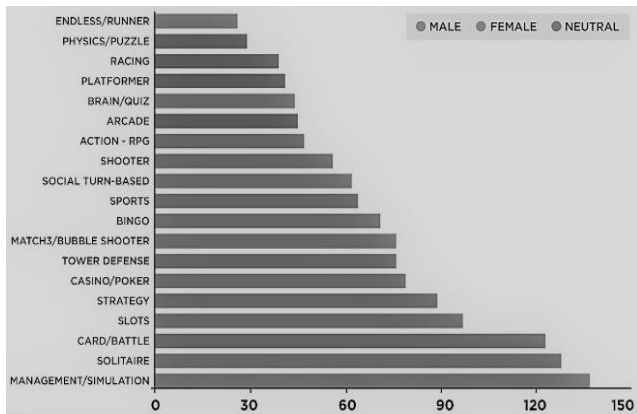
Fig.2 Genre Relationship

The whole action games needs to be wide and well framed as it can be potential threat if violated. So we kept in mind to make it work on user initiation than potential AI evaluation.

The above stats shows that action game is in majority. And the time audience number keeps on increasing. This helped to finalize the first and major genre to work on. This resource was collected from Satistica [2016 Report] as the resources are few and mandatory so relevancy is exact and approx. The and hence also helps in the increasing genre as per the focus of the various increasing demands of the various games.

C. Manual Sentiment Analysis:

The sentiment analysis for the first game was made possible as the data for the analysis taken as user input not an API driven to extract information. The manual input suggested a few set of random questions shuffled after each session.

The approach was clear to make the attempt a 100% success [Fig.5]. And the set of questions were relevant to the storyline, as the player needed a close and through analysis. The use of the API of the Stanford NLP was to make the survey for gameplay in textual manner. So the format of answers should be verbal. The output to the question were quite similar in set of [Fig.6]. The negative pins were ruling than the positive and neutral one. So the next survey was made in sessions.

The session was stacked with two different perspective character play. And the counters were suggested and the session was filed with less flaw and approach to the better performance was more accurate and some were logically creative and some creatively logical. The outcome were moderated as we needed the 100% input the most basic survey made by all.

D. Cobweb Fusion

The technique we used to retrieve the data and make a whole process of injecting it to the API for the analysis of the stats provided. The technique is not a generalized one as it is still

in its prototyping phase. But it was great help from Prof. Andrew Gustier [University of Applied Science Europe Bits&BTK]. The theory is still a looped hypothesis but the only clue to implement our project.
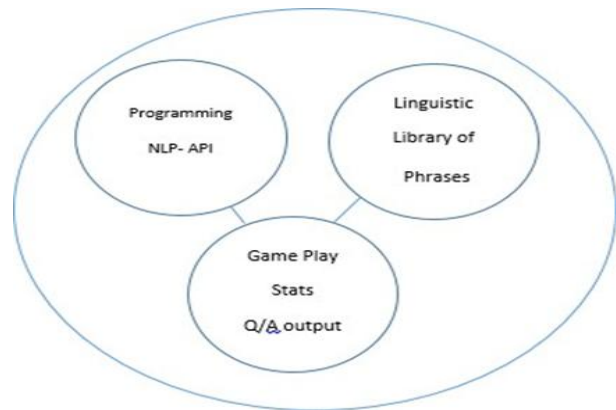

Fig.4 Cobweb Frame Outline

IV. RESULTS

The outcome was not all as the research was phased. The outcome for the basic Q/A session was successfully implemented using Stanford NLP. The comparison of the output was represented with a tabular form such as:

Table 1 First Table for Q/A Analysis

Player Session Sets	Positive (%)	Neutral (%)	Negative (%)
Player Set 1 [Set of 50 players]	26%	4%	70%
Player Set 2 [Set of 50 players]	28%	9%	63%
Player Set 3 [Set of 50 players]	32%	10%	58%
Player Set 4 [Set of 50 players]	30%	2%	68%
Player Set 4 [Set of 50 players]	29%	5%	66%
Player Set 5 [Set of 50 players]	28%	8%	64%
Player Set 6 [Set of 50 players]	25%	5%	70%

The above table was drawn out of certain players. The set comprised of the beginners, moderate and experts. But the values were all altered with a max-min of 2% to 10% and hence was concluded as the success of the first experiment. The users we all more or same at the same level and hence were aware of the experiment so the efforts were natural. And the fruitful answers helped to keep everything in format. It was concluded that the percentage of Neutral was quite the lower as the world of game sometimes fail to answer with logic. And the Positive percentage was quite average with the percentage varying within the range of 10%. The Positive reports also showed users have straight answers for the performances.

The negativity was quite high in percentage. As the rage and combat was quite disturbing for the players. It did made them confused and tensed which also affected their Q/A session. Hence it was clear that the negativity was much more for as session of action games and the value was quite high for the combat game. It is not fixed as we had some numbers of Neutral and Positive too.

But the discussion will better convey the problem and the solution to that aspect of the method. It is measure some drawbacks and lock in the process of evaluation. But the method also made the matter not so interactive and active with the functional issue.

Table 2: Table for Q/A Analysis

Player Session Sets	Positive (%)	Neutral (%)	Negative (%)
Player Set 1 [Set of 50 players]	51 %	1%	48%
Player Set 2 [Set of 50 players]	67 %	3%	30%
Player Set 3 [Set of 50 players]	57 %	3%	40%
Player Set 4 [Set of 50 players]	53 %	5%	43%
Player Set 4 [Set of 50 players]	70 %	2%	28%
Player Set 5 [Set of 50 players]	61 %	5%	44%
Player Set 6 [Set of 50 players]	60 %	4%	66%

Thing that made the use of previous survey. The second table measure the players play the game with some different strategies and made a bit progress in the game play

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