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Mobile Game Development

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**Written Assessment: Critical Evaluation of Game**

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# INTRODUCTION:

An interactive program that integrates digital technology which is developed to provide joy and entertainment to the least and more if possible, that can engage one or more user in the form of players is a game (digital). These games can be played on electronic devices like mobile phone, computer, consoles and more which is interactive with the players.

This report covers critical analysis of the game that is selected for this critical evaluation is Slither.io. It is an online game that can be played using a browser. This same game is also available in Google Play store. It was developed by Steve Howse from Lowtech Studios. Although the Game Menu along with some feature and game mechanics are different for mobile phone/ android device but the core of the game is same. It is like a classic Snake game where a player starts with a fixed length snake and increases more by consuming orbs. This report describes the game from the UI Layout to the game mechanics, its better side and downside along with some of the game theory available and the game theory that can be applied to this game along with all the findings for the critical thinking. This report is not based on pros or on cons but rather more critique view.

# GAME EXPLANATION:

Slither.io is like a snake game. When a player opens/ load the game a menu is loaded. There is a like, Share and Follow button at top left corner. Like and Share works for Facebook, and Follow is for Twitter. On the top right corner there is an option to select the graphics as low and high. When a player clicks the option, it gets toggled to another. Bottom right corner has two option to share on Twitter and Facebook, Bottom center has privacy- contact option. Bottom left corner has the change skin option that allows user to select various skins for the snake / worm. With the game title at the center there is a fading animation text that displays the instruction of the game and there are 3 simple instruction to it.

1. Eat to grow longer.
2. Do not run into another player.
3. When longer, hold the mouse for a speed boost.

There is a textbox for the nick name for the game as there is a leaderboard for the score and top player display. When Play button is selected, a player starts with a snake/ worm like creature of default size 10. The player needs to move on hexagonal pattern floor/ platform. There are many various sized orbs of various color glowing and at fixed location and some are even moving. The moving orbs are the bigger one and glows brightly and continuously. More the orbs are consumed more the length is increased and more the length player can run faster but beware that on doing so the player length decreases and in this game the score is the length of the player, more you speed more you decrease the score. Unlike the snake game players can go over their own body and nothing will happen.

# GAME THEORY:

According to the author game theory defines a computer game as a continuous series of strategic decision made by the player (Taylor et al., 2017).

Lars Konzack provided a game theory to analyse technical, aesthetic and socio-cultural perspectives which are based on various computer game layer. There are seven layers to be specific which are: hardware, program code, functionality, game play, meaning, referentiality, and socio- culture. According to this journal, all these layers are explained with *Soul Calibur* game by Hajime Nakatani.

Layer1: Hardware

This is the lowest layer related with wires, signals, hardware, and components. Here computer is utilized as a tool, medium, toy or other combination. Computer can be mobile phone, gaming console or PC connected with internet but does not let us know the kind of game we have.

Layer2: Program Code:

Every computer game is coded, and it is necessary to understand the code for the game but is still difficult to understand the whole code or least follow the trail of code if access is possible or else analyze the layer that can helps indirectly understand the code.

Layer3: Functionality

Code and the device that it runs describes the functionality (Lars, 2002). Here behaviour of computer along with its interface interaction with input from the user. Here the function being investigated may or may not be related with the game itself, but every function must be thoroughly checked.

Layer4: Game Play

It is the game structure that defines the computer software application as a game. Ludology determines various game factors that can be used to evaluate all possible games including computer games.

Layer5: Meaning

The study of meaning of signs: semiotics provides the semantic meaning of the computer game (Lars, 2002). Games can have meaning, but it doesn't mean that all the games has meaning and some games can have no meaning at all and there is no link between the games quality and the meaning of the game. Multiple games can have similar gameplay but can have different meanings of what is happening inside the game.

Layer 6: Referentiality

Referentiality can be understood when country games is compared with other computer games and other media. Here we focus on game settings and genre. Setting helps us relate our game with the virtual environment. Computer game genre can be action, arcade, adventure, strategy.

Layer 7: Socio-Culture

In this layer we investigate the culture around the computer games and monitor the playground so not only the interaction between the computer game and player is observed but also their inter relationship between all participants of the game is observed. So, this also focuses the relationship between the playground and outside world. How the game is used in real life, we need to understand the basic nature of the game, play and culture.

# APPLYING THEORY:

Layer1: Hardware

The hardware required for slither.io is a PC that can runs a browser smoothly and it can run on an Android device is running with the Android version 4.0 and above. Currently I don't have access to any IOS device so cannot check whether this game supports IOS or not, but it can be played on iOS device’s browser.

Layer2: Program Code:

Although I do not have any access to the programme code of the game, but I can somewhat speculate what is going on and initially when the game is loaded the menu is presented to the user, there is options for sharing and like, share and follow for the social medias there is also an option to set the quality of the graphics that will load a high-quality material or low-quality materials. Change skin option loads a bunch of skin assets for the worm/snake and player can use that in game. There is also an animation text and that source three different instructions of the game and there is a nickname text field with that takes filled that a user interface is displayed next to the snake / worm and is also used in a scoreboard how long will this course or said this is a high scoreboard. Play button loads are different screen where a player snake / swarm is given is loaded and then there are various coloured orbs, and the player needs to consume those orbs and increase their length and make sure that they do not collide with another player. Now here when two players collide the code makes sure that the snake that collide on another player get destroyed and leaves out orbs and when player consumes those orbs and other orbs their length is increased, and the length depends on the size of the orbs that the player consumes. For this there might be a counter that store the orbs value and then that intense increases the length of this snake / worm.

Layer3: Functionality

While playing the game the new players will be generated and the motive of this game will be to get as large and long as possible by eliminating the player by forcing them to collide with our body and consuming as many orbs as possible. The game is initially simple and easy but as the length increases and more players are around the tougher it gets. The point of the player is determined by how many and what size of orbs the player consumes. Players movement of the snake determines the score and the leader board as well as how long the player stays on the game.

Layer4: Game Play

To play the game player either selects the skin or play by default skin snake that is green with length 10. There are other player competing in the vast map and the player takes control over the snake using a mouse where it follows the pointer of the mouse and when the player gets long then holding the left mouse button helps snake slither faster but also decreases the length and the score of the player. Player movement from the mouse along with the fast movement left click from the mouse can help player strategies and eliminate the opponent player. There are no special moves, it is all about strategy and depends upon every individual player in the same game. But there is a bot-controlled game on the mobile device. Although the goal of the game is to eliminate the opponent and get larger another goal is to get on the top of the leader board. If you collide in other player then the orbs will be generated on your body place and needs to restart the game.

Layer5: Meaning

And this game is functioning well and creating a meaningful characteristic of the player. Here, there is not much about what player a character can do. Every character is the map different from a skin that is applied on it and from the players perspective and strategy. Player can also build a slither. here is fast with a hexagonal pattern to slither. This game is visually appealing simple to play and can be more fun with more strategy.

Layer 6: Referentiality

Here, in this game mainly represents the snake game that we used to play during our childhood this game is also like splix.io, Pac-man, snake classics and Agar.io. Since this game represents most of the snake like games there are more possibilities for this kind of game and more after research can be done and more designs and stories can be made and uplift the game furthermore.

Layer 7: Socio-Culture

In game players and behaviour and the behaviour of other people that are playing the same game can provide us more insight on social cultural aspects. But there is a different way to present the analysis off social cultural behaviour and that is a personal experience. My experience in playing slither.io is that it can provide long hours of entertainment and urge to get in the leader board and also to get the length of the snake longer when a player sees other opponent with bigger in size and length. When a player becomes longer in size and have huge score and if it gets collided with another player that creates power value stronger. And this is the game of strategy, player gets the sense of winning over another player and making them collide with us.

# CONCLUSION:

Going through the personal computer supported browser with an Internet access, analysed programme code of slither.io, it provides knowledge on the functionality let the game have and provide to the player. there are other various layers that increases the quality of the game like a game play and referentiality that provides references of the game with other possible games like snake classics, Agar.io, Nokia’s snake game and much more. The gameplay is more focused on player trying to increase the length of the snake and getting more school an obtaining as much orbs as possible. Slither.io itself functions as a proper game but also points out to the other similar games and the culture on which it is build. Here we also found out that the game theory that we apply it is not a universal theory of rationality but rather a tool to model specific situations at some degrees and rationality.

# REFERENCES:

Crazygames.com. 2021. *Slither.io - Play Slither in Fullscreen!*. [online] Available at: <http://www.crazygames.com/game/slitherio> [Accessed 12 February 2021].

Faculty.washington.edu. 2021. *Digital Games Course Definitions*. [online] Available at: <http://faculty.washington.edu/bkolko/games/definitions.shtml#:~:text=A%20digital%20game%20is%20an,least%2C%20and%20quite%20possibly%20more.&text=Digital%20game%20%2D%20a%20game%20that,such%20as%20consoles%20and%20computers.> [Accessed 10 February 2021].

Igi-global.com. 2021. *What is Digital Games | IGI Global*. [online] Available at: <https://www.igi-global.com/dictionary/digital-entertainment-culture-and-generation-y/43973> [Accessed 10 February 2021].

Lars, K., 2002. COMPUTER GAME CRITICISM: A METHOD FOR COMPUTER GAME ANALYSIS. *Digra*, 1(2342-9666).

Taylor, MJ, Baskett, M, Reilly, D and Ravindran, S (2017) Game theory for

computer games design. Games and Culture, 14 (7-8). pp. 843-855. ISSN

1555-4139