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Game Design IIIA

An MDA Analysis on the Digital Game "*Marvel's Avengers*"

Introduction

This is a formal analysis of the digital game "*Marvel's Avengers*" (The PlayStation 4 edition) utilising the *MDA (Mechanics, Dynamics and Aesthetics) Framework* created by R. Hunicke, M. LeBlanc, R. Zubek. The digital game was developed by Crystal Dynamics and was published in 2020 by Square Enix for the PlayStation 4, PlayStation 5, Xbox Series X and PC. The game is mainly, a single player campaign that follows a narrative inspired by the characters of the same name featuring in the Marvel Comics. The style of gameplay is a third-person action/adventure game that leans heavily on combat and narrative. For the purposes of this analysis, the focus will solely be based on the "Battle System" of the game.

Mechanics

Players may play as a variety of characters from the Marvel universe, utilising specific power moves and attacks customised to the character and their gameplay. Each level allows for a team of four players, it can be played either solo with the characters controlled by the game's Artificial Intelligence or on online multiplayer mode with up to four players. The overall actions that each player can execute for each character is the following button prompts and actions. Players can move their character using the left analog stick and may sprint if pressing the "L3" button while running. The camera can be moved using the right analog stick. Different Attack buttons may be executed through the "Square" (for light attacks) and "Triangle" buttons (for heavy attacks). Pressing the "X" button allows players to jump, holding the button may allow for certain characters to fly. Pressing the "O" button allows plays to block and/or dodge attacks. The "L2" and "R2" are used to aim and fire projectiles within the game, ranging from Iron Man's missile attacks to Thor's hammer which allows the hammer to be summoned back.

There are a variety of three special attacks for each character, each power attack is executed through use of the "L1" and "R1" buttons. Using "L1" activates the "Support Heroic Ability" which allows for players to either generate health and powerups, while "R1" activates "Assault Heroic Ability" which increased the player's damage and provides damage advantages over enemies. If both are pressed at the same time, the "Ultimate Heroic Ability" is activated which allows for attacks that provide both physical and Health advantages. Each ability can be activated for a limited amount of time and requires a full power bar of each ability to be executed. Players may activate their "Tactical Awareness" by pressing the Up button on the directional button pad, to discover enemies and interactable objects hidden within the game world. If an enemy is stunned, players may use the "Triangle" and "O"

buttons to perform a takedown attack on players that deals a high amount of damage as well as restores a small portion of health to the player. If a player is downed (their health is completely depleted), their teammates are allowed to revive the player up to three times per level, restoring up to half of the characters health bar.

Dynamics

Light and Heavy attacks are implemented the same as in majority of action/adventure games where light attacks deal deals small amounts of damage but are quickly executed while heavy attacks take longer to execute yet deals a significantly higher amount of damage. This further encourages players to utilise combo attacks, using both button inputs to create unique action combos, creating a balance between speed and damage. If the Heavy attack button is held for a short duration of time, it allows for a slightly heavier attack. This allows players to feel the "weight" of their action, yet also allows enemies to disrupt players when attempting to execute this specific action, therefore forcing players to choose wisely between heavy and light attacks.

Players can dodge all attacks and are able to block certain attacks, this forces players to rely on the actions of "parrying", this provides a game balance to the combat as it forces players to dodge and engage with the combat rather than being static and blocking for long periods of time. Players if blocking specific attacks, allows players to stun the enemy and execute a counter-attack. This is further emphasised the negative feedback loop in which players and enemies are can deal extra damage if they are attacked from behind, forcing players and characters to be constantly moving and attacking. It was discovered as the more progression was made with newer enemy types and their increasing difficulty, the dodge action was used more than block button as most attacks consisted mainly of unblockable actions therefore disregarding the counter-attack altogether.

Players generate special power from each attack to fill up their special ability bar. When activated, this allows players to execute more powerful actions yet at the constant rate of the depletion of the bar, this provided game balance as players constantly fought, regardless of power bars. However, the power bar were not well implemented on certain characters such as Captain America, who did not gain any special advantage and often lead to players disregarding the main power bar in favour of the special abilities power bar. There are a variety of different enemy types that require various ways to defeat them such as enemies who utilise shields, where the shield must be destroyed first then damage can be inflicted on the enemy and/or enemies with special effects such as increased strength and toxic gasses that affect the player for a short amount of time. These enemy variants require players to differentiate between different attacks and provides a more interesting gameplay battle.

The best positive feedback loop implemented into the combat is the action of takedowns, where players can execute a takedown action upon enemies that deals a significant amount of damage as well as restores a small amount of health, this allows players toc continuously battle without the worry of locating a health powerup. This action also encourages players to fight, even with low health as it gives players an advantage in combat. The game features a skill tree that unlocks newer abilities and increases the duration of certain abilities within combat, this allows players to create a customised experience where players may create advantages over enemies to gain more items and/or rewards in battle. The more enemies

beaten and levels progressed, the more player experience is earned and more skills are unlocked therefore creating a good sense of level progression. The skill tree as well as the gear system which allows for a specific percentage of abilities allows players to fight utilising their specific character abilities and take advantage of enemies however the negative feedback loop introduced is that gear is limited to certain power levels and if they are maxed out, there are no more enhancements that can be added. This prompts players to search and acquire new gear pieces which can be located in fights and chests, therefore emphasising the aspects of combat and exploration yet also provides a mediocre sense of level progression as players constantly search for new and more powerful gear items yet the game does not provide many in variation.

Aesthetics

Marvel's Avengers communication design has made major advances since its debut in 2020. The game has received major updates and feedback for millions of players, attempting to improve the user interface and its communication design to players from its original incomplete state. Each Player has a main health bar in the top-middle of the screen, with the intrinsic power bar (main power bar), directly under it. This allows each player to clearly see their health and power, however when first played it could be confused for a boss' health bar and a player name tag and/or icon should be displayed to further indicate that its the player's health bar. If a player is downed, it displays a downed count bar in the middle of the screen while the screen turns grey and a downed animation plays. It would be better to provide life count indicators to players at all times rather than when they are downed as it allows players to be fully aware of how many times they can die before losing.

Each special power attack is located on the bottom right of the screen, with each bar having its own icon, power bar and button prompt that lights up when available to use. This serves as a well implemented indicator as player know when the ability is available and which buttons they can press to execute this action during battle without the need to search for the button prompt in a manual. Each attack displays the numerical value as well as colour variation ranging from white to red depending on the damage of the attack and each attack has its own animation and particle effect however the difference in damage cannot be distinguished and unsuccessfully creates a difference in strength.

Each enemy has their enemy name tag as well as their power bar displayed over the actual character at all times. If a character is stunned, a character icon as well as special stunned animation is played to indicate to players that they or the enemy is stunned. If a player is successfully attacked by an enemy when in battle, their health bar decreases as well as a numerical value appears with various colour indicators and attacked animations however the real problem occurs with the incoming attack indicators. If "Tactical Awareness" is activated by the player, all interactables as well as enemies are highlighted and allows players to locate enemies that are still active within the game world that is near to the player.

The incoming attack indicators have a variety of icons and colours indicating the severity and type of the incoming attack. The player indicators do not appear over the player avatar or drastically alerts the player of the receiving attack, rather it appears towards the edge of the screen in the direction of the attack. This does not give the player a clear indication as to when the attack is about to collide with the player and does not allow for a certain amount of

time to be able to dodge and/or block the incoming attack. The second issue is that although the indicator is in the direction of the attack and allows for variety of attack indicators, it still blends in with the background rather than alerting the player of immediate danger amongst all the chaos of battle. Despite it being different colours, it fails to grab the attention of the player, a similar method should be implemented similar to *Spider-man (2020)* and *Batman: Arkham Knight (2015)* where the camera is suddenly directed towards the incoming attack as well as another attack indicator is displayed above the player's head to alert players of the incoming attack as well as allow players enough time to create a counter-attack.

References

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