UNDERSTANDING THE CONCEPT OF MDA FRAMEWORK

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FAKULTI KEJURUTERAAN TEKNOLOGI MAKLUMAT

UNDERSTANDING THE CONCEPT OF MDA FRAMEWORK

ASSIGNMENT 1 SEMESTER 2 2019/2020 GAME MECHANIC BLHW 1762

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INTRODUCTION

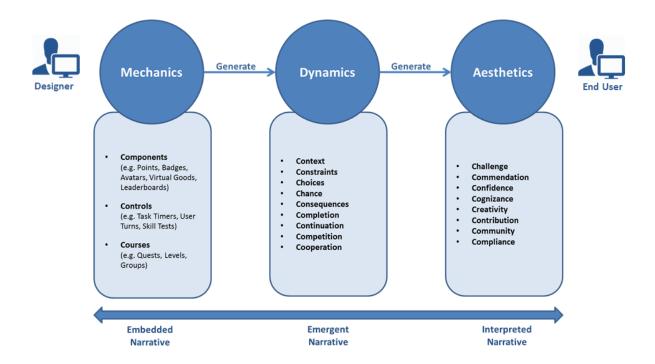
Games are tough to create and develop, and the difficulty grows with the industry's growth and the complexity of game technology. Companies must increase the efficiency and efficacy of the development process in order to continue developing games that meet the highest quality standards. Over the last few years, several guidelines, approaches, and ideas have been developed to aid in the study, design, and documentation of video games. Some can be used as design tools, others as documentation tools, and yet others as game analysis tools, although the vast majority of them fail in some way.

Rules, systems, and fun are the three distinct components of games, and they are related to their design counterparts, mechanics, dynamics, and aesthetics, respectively. As a result, the mechanics are seen as the game's building blocks because they are linked to the game rules. The lack of an ontology within the game design domain is a trait that hinders field investigation and, to a large degree, game design. This problem makes the field's progress difficult in a number of ways, by obstructing scholarly understanding of the domain and leaving the design process dependent on subjectivity and prior knowledge of its stakeholders.

As a result, there is a pressing need to develop an ontology that will improve understanding of the domain, particularly one that would be valuable from a design standpoint. As a result, a better understanding of the MDA framework will help to elucidate the relationships between all of the abstraction layers as well as the emotional reaction that can be elicited in the player.

FUNDAMENTAL OF M.D.A

The Mechanics-Dynamics-Aesthetics (MDA) framework is a method used to examine games in game creation. It divides game consumption into three categories: mechanics, dynamics, and aesthetics. The MDA framework provides precise definitions for these terms and seeks to explain how they relate to each other and influence the player's experience. These three words have been used informally for many years to describe various aspects of games, but the MDA framework provides precise definitions for these terms and seeks to explain how they relate to each other and influence the player's experience.



The formal rules of the game are known as mechanics. These rules specify how the game is set up, what actions the players can perform, the conditions for success, and the procedures for enforcing the rules. More explanation about the mechanics is the numerous actions, behaviors, and control methods available to the player inside a gaming context are referred to as mechanics. The mechanics, in conjunction with the game's content (levels, assets, and so on), enable overall gameplay dynamics. Shuffling, trick-taking, and betting, for example, are card game mechanisms from which dynamics like bluffing might evolve.

MECHANICS

Some of the most basic building elements for developing games are game mechanics. They make use of game rules and structures to provide an engaging experience for both the player and the learner. The rules and procedures that lead players through the game are known as game mechanics. These mechanics also offer the framework for how the game reacts to the activities of the players. The main mechanic serves as both a representation of the game's fundamental loop and a feedback loop for players.

This is a high-level overview of game mechanics. On the other hand, mechanic can be split down further into numerous activities, processes, and visuals. Those various components represent abstracted traits that the game is attempting to depict. Summarize the main way the player will interact with the game world to remember the central function that mechanics play in game design. Players use mechanics to attain game goals, execute player actions, and advance strategies to assist them progress through the game.



The main mechanic of Scrabble is drawing and arranging letters on the board, which shows players how to score points and win the game. They learn that letters like "Q" and "P," which are less common, can win them more points, and that they should look for more opportunities to play them.

By playing the game, players learn the emergent strategy of Scrabble. Game mechanics are the various methods by which players can engage with the game. They can also indicate a player's ability to enjoy themselves, have a good time, and stay inspired to keep playing. This fun component is critical for commercial entertainment games, as it is required for players to enjoy themselves and continue playing.

DYNAMIC

The game design elements that create and sustain aesthetic experience are called dynamics in the MDA model. Time pressure and opponent play, for example, are two game factors that contribute to the challenge aesthetic. The game aesthetic of fellowship is enhanced by the dynamics of sharing knowledge among certain participants of a session (a team) or providing victory conditions that are more difficult to attain alone.

The dynamics that motivate individual users to leave their mark, such as mechanisms for purchasing, building, or earning game things; designing, constructing, and modifying levels or worlds; and creating individualized, distinctive characters, all contribute to the aesthetic of expression.

The setting, restrictions, choices, chance, repercussions, completion, continuation, competitiveness, and collaboration all have an impact on the game's dynamics. "Dynamics" refers to how game mechanics respond to player input and interact with other mechanics. Everyone who plays the game can benefit from the beauty generated by dynamics. Dynamics is the carrier that, when combined with aesthetics, transports the user to the desired experience, and it is usually employed to heighten aesthetic emotions.



They are more obvious in some games than others: in Rugby Union, the major dynamic is a series of attacking passes and rucks that pushes toward the opponent's try line. The tendency of pieces in chess to construct complex webs of covered territory, which then break apart following a decisive move, exemplifies this. It may be seen in Grand Theft Auto's driving experience. It's all about the balance of timely growth and harvesting in Farmville, which leads to rewards. It is the act of betting and folding in poker.

AESTHETIC

When interacting with the gaming system, the Aesthetics outlines the desired emotional responses elicited in the player. We strive to avoid adjectives like "fun" and "gameplay" when defining the aesthetics in favor of a more directed terminology. Before getting into the individual styles, it's worth noting that while many games incorporate components of multiple aesthetics, they often focus on only 2-4 of them.

It's more vital to get at the game's 'core' aesthetics, which characterize it more powerfully. Early Mario games, for example, had a narrative, but it wasn't really an incentive for players to play the game because it wasn't focused on narrative at all; it was more of a challenge game. Let's start with the aesthetics:





- Sense Pleasure: Appealing to the senses, with good images, sound, and music, as well as emotional arousal. Video games rarely elicit bodily responses, though some Kinect or Wii games, such as a dancing game or a Rock Band game, may do so.
- **Fantasy:** Playing as someone who can't be in real life, such as a soldier in a war, a hunter, and so on. RPGs typically provide this type of experience.
- Narrative: The game's story is intriguing and well-designed.
- **Challenge:** Getting over unnecessary roadblocks. This is a common aesthetic in platformer games (this was a core aesthetic of early Mario games)
- **Fellowship:** MOBA-style games are known for their emphasis on cooperation and teamwork.
- **Competition:** The desire to demonstrate domination and superiority over peers by crushing them in competition. This is most commonly done through multiplayer online games such as Call of Duty, Halo, Warcraft, and others, although tiny components of competition can also be found in basic Flash-based games with online high-scores.

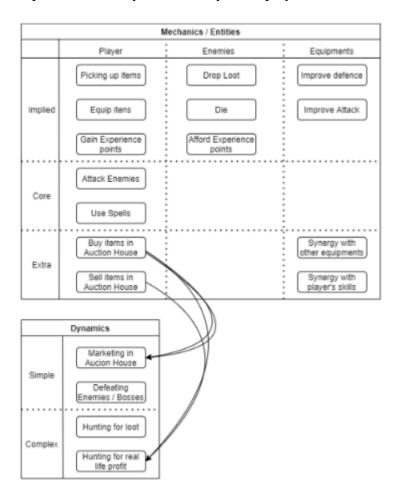
- **Discovery/Exploration**: Trying out new things. Entail things like unlocking hidden spells, crafting new items, and so on. Exploring the randomly generated environment and making new things are two ways in which Minecraft uses discovery.
- Expression: People enjoy expressing themselves, whether through the equipment they use or the way they play. Many online RPGs cater to expression by introducing a variety of different pieces of armor and weapons, classes, skills, and other things that players can customize.
- **Abnegation:** It's similar to "zoning out" while playing a game. In other cases, such as in Bejeweled's limitless mode, these games don't even have final goals.

MDA FUNCTION

When creating a game, the first stage is to identify the game's fundamental aesthetics, or the main experience that the user will be able to have. This is a choice that is made on a case-by-case basis. The designers are in charge of the aesthetics, and their definition can be backed up by looking at similar games that served as inspiration. In some circumstances, the stakeholders have already decided on the aesthetics. If a team is recruited to make a sequel, an advertisement game, or an educational serious game, for example, the contractors can fix the aesthetics. The goal is to establish a single main aesthetic to guide the development process. The team should concentrate on defining one or more aesthetics when the major aesthetics are fixed.

Designers know where to devote more work into the design process when they first define the prioritized aesthetics. Hiring a complete orchestra to develop and record the soundtrack for a puzzle game that will be played as a pastime would not be ideal (for most game businesses). The aesthetics here are submission rather than sensation. Neither to devote the entire graphic design team to creating a highly detailed environment world in an online competitive racing game where challenge takes precedence over fantasy and exploration.

Another complex dynamic found in co-op RPG games is "collective loot hunting." The game may support the fellowship aesthetics by enhancing the UI to show all players when someone finds a rare item by defining the mechanics of "picking up items" offered to the players (a mechanism that would directly effect the described dynamics) (as it would also improve challenge). "Killing foes" is a dynamic that supports this one as well, and as such, it might be tweaked to improve it as well. For example, the team might make the enemy pay additional prizes when they are killed by more players.



If the dynamics are incompatible with the planned aesthetics, they should be removed from the game or the mechanisms that invoke them should be changed. Cipsoft's Tibia is an example of a massively multiplayer online role-playing game (MMORPG). The game contains a hunting dynamic in which the avatar levels up by fighting creatures that grant experience points to the player. When a player kills a monster in this universe, he must wait a predetermined amount of time for the monster to respawn, which might range from a few seconds to several hours.

CONCLUSION

The MDA (Mechanics, Dynamics, Aesthetics) framework teaches game designers that a game's specific dynamics and mechanics do not always equate to a game's specific aesthetics. You may construct sophisticated, focused game designs by focusing on the aesthetics of play you want to give and making sure your mechanics and dynamics accent the aesthetics. Furthermore, by categorizing games by their primary aesthetics of play rather than genres, MDA can assist game customers in determining which games they love the most.

Designers in fields where creativity is at the heart of the creation process, such as music, movies, books, and games, have a shared perspective about the difficulty of accepting a structured design methodology. This feature, combined with the complexities of game design, might make developing a design process difficult. The eight types of fun, according to the MDA research, are a beginning point for a lexicon that may be utilized to understand the player's feelings. Designers will have a better knowledge of the emotional goal of the game and, perhaps, improve its quality by learning more about this subjective region of the game domain.

MDA encourages a structured, iterative approach to tuning and design. It enables us to reason openly about specific design goals, as well as predict how changes will affect each facet of the framework and the designs/implementations that arise. We can grasp the dynamic behavior of gaming systems by shifting between MDA's three levels of abstraction. Understanding games as dynamic systems aids in the development of approaches for iterative design and refinement, allowing us to tune for desired behavior while controlling for undesirable outcomes.

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