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Game Design IIIA

An MDA Analysis on the Digital Game “Catan”

Abstract

Introduction

This is a formal analysis of the digital game “Catan” (*Steam* Version) utilising the *MDA (Mechanics, Dynamics and Aesthetics) Framework* created by R. Hunicke, M. LeBlanc, R. Zubek. This analysis solely focuses on the data design within the game. The digital game is based on Catan, an analogue multiplayer board game, published in 1995 by *Franckh-Kosmos Verlag*. The digital game was developed by *Exozet* and published by *United Soft Media* on 25 April 2017, for the computer platform. The game is an online multiplayer that can be played either Solo or with other players and features two main game modes which are “The Board Game” and “The Card Game”. For the purposes of this analysis, the focus will solely be based on the “Board Game” mode.

Mechanics

The main focus of Catan is on Expansion and Trading, where players must rely on resource management to expand further, collecting victory points in order to win the game. The board in which the game takes place upon feature various locations in which the player can inhabit, each location features a number and resource. Each player per round must roll the dice on their turn, as this is the main source of resources production. Depending on the outcome of a dice roll, resources of the area with numbers matching the dice outcome are provided with resources, either wood, bricks, ore or wheat. Only players located with settlements\cities located on the numbered area will receive the resources. Dice outcomes with an outcome of 7, activates the robber. Where players with a resource count of 8 or higher, can risk their resources being stolen by the robber. At the beginning of each game, each player starts with five settlements, four cities, and fifteen roads as well as a building cost card. When beginning the game, players are allowed to place two settlements and roads in any area of choice. However, throughout gameplay, players must earn resources and use them to produce more roads/cities/settlements. The building cost card provides players with information on how much resources are required in order to produce and expand, either in roads, cities or settlements. Players may trade resources either with each other or the bank for different resources and/or development cards. There are three types of development cards which are

Knights, Progress and Victory Points cards. Knights cards can be stolen by other players, depending on their army size and activates the robber when played. Progress cards differ, usually providing the player with resources and expansion without the expense of resources. If a Progress card is played, it is removed from the game entirely. Victory points aid the player in their progression and are the only card from all three categories that can be used when purchased. The robber is activated by a dice roll of 7. The robber affects all players, as when activated, steals half of all resources of players with a resource count of eight or higher.

Dynamics

Each hexagon location of the board provides a common balance of resource production, except for Brick and Ore. This manipulates players as Bricks are the most common resource, mainly used for expansion in roads. Therefore, this forces players to strategically, place their first two settlements near the sectors possessing these resources in order to create a good source of resources for each round. Dice outcomes of Catan vary, mainly resulting in outcomes ranging six to nine, based on various gameplay conducted by myself and other colleagues. This impacted gameplay experiences immensely as majority of resources produced were within outcome range of six to nine. Therefore, players such as myself, were disadvantaged if settlements were placed in lower range numbers and had to rely on trading and random outliers to progress further in the game while players with settlements of higher outcome had enough resources majority of the game playthrough.

As expansion and trading is one of Catan's main mechanics, the game provides a good balance of producing and using resources to expand. The building cost card provides players with the information of the quantity of resources to build and expand without the use of a manual and/or tutorial. Despite the card providing the player with information on production requirements, it also affects players' mindsets when trading, as players strategically trade knowing that a certain resource can be traded to build a road and expand. The need of expansion also plays a major role as players require better resources to expand and acquire more resources of different categories. Trading also affects players, as if they are desperate for a specific resource without the aid of other players, can trade with the bank at the expense of numerous resources, providing a major liability if resources are not managed well.

The Robber mechanic further impacts the resource management aspect of Catan, as players are limited as to how many resources they can possess throughout gameplay, constantly alternating between trading and expansion avoiding being robbed of their precious resources. This allows players to also sabotage one another and maintain a balance of progression, where players are constantly aiming for expansion and victory points. Knight and Progress cards allow for players to advance at a quicker progression rate however do not alter gameplay immensely as cards may only be used once and are removed from the game after use, therefore not breaking the gameplay balance as the same cards may not be drawn again or stack up, as outcomes are gradually reduced and are always generated randomly.

Aesthetics

Catan follows the ideas of Fellowship, Expression and Challenge as the game require players to produce resources to build, expand and gain new resources in order to win. The game presents a competitive aesthetic model as players compete to finish first, sabotaging others and attempting to gain as much resources and settlements as possible. The overall design of

the User Interface provides all the information required to play the game through the forms of tokens and the build card. The victory points are situated just under the player's name/ player profile and provides all players with information of progress with each character. The only downfall is that training is automatically defaulted to trading with the bank, causing players to mistakenly trade with the bank. This immensely impacts the player's experience as it may ruin their progression and resource count.

References

- [1] R. Hunicke, M. LeBlanc, R. Zubek. *MDA: A Formal Approach to Game Design and Game Research*.
- [2] K. Teuber (1995) *Catan* [Boardgame]
- [3] Exozet (2017) *Catan* [PC Game/Steam]