



SERIOUS GAMES NETWORK



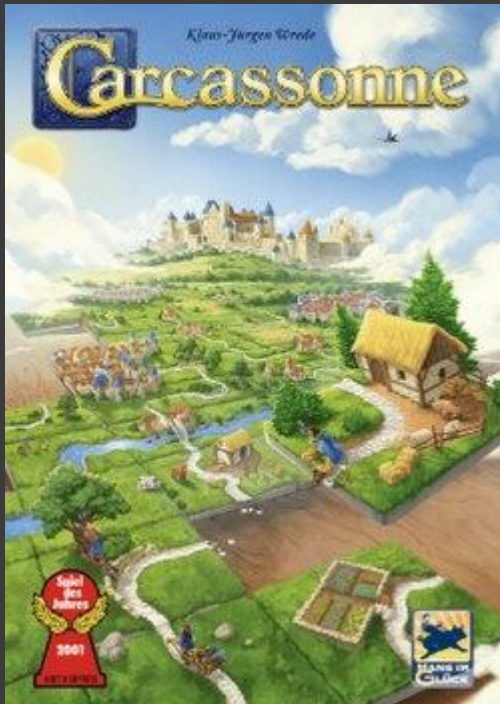
Carlos Vaz de Carvalho

# GAME DESIGN AND DEVELOPMENT

# Core Dynamics

## ● Territorial Acquisition

- It's normally a question of controlling a piece of territory, as it is in some first-person shooters. Games like Risk, Carcassonne, and many turn-based strategy games feature this core dynamic.



# Core Dynamics

## Prediction

- Some games are about doing the right thing or being in the right place at the right time. In many cases, these are children's games, although numerous carnival or party games also feature this core dynamic. All the individual mechanics in the game work toward allowing the players to guess what will happen, and they are rewarded for predicting the possible outcome of a game before it continues to the next round. Most times, the player's prediction involves luck or consideration of odds. Games like Roulette or Rock-Paper-Scissors fit this core dynamic.



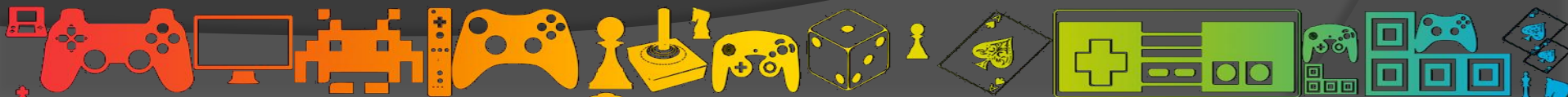
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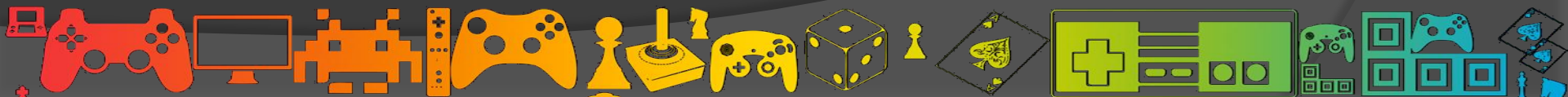
## SCISSORS



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## Survival

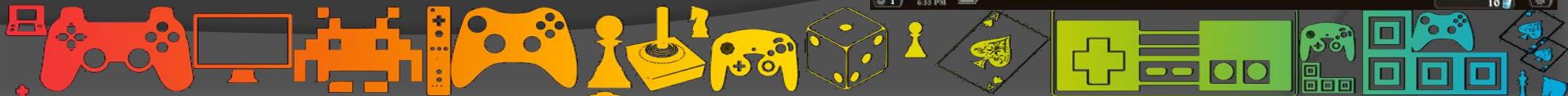
- Human beings are naturally wired to survive and thrive. We will protect ourselves out of sheer instinct before we're even told the point of the game. Survival is a core within many games.
- However, it's important not to confuse a core with a lose condition in a game. In many video games, you can die, and if you do it's game over. Still, some of these games do not involve constant life or-death struggles as the primary activity of the game. If the player is concentrating on gaining power, killing enemies, or reaching the exit, then survival is a secondary activity that supports another core (such as building or destroying).



# Core Dynamics

## Collection

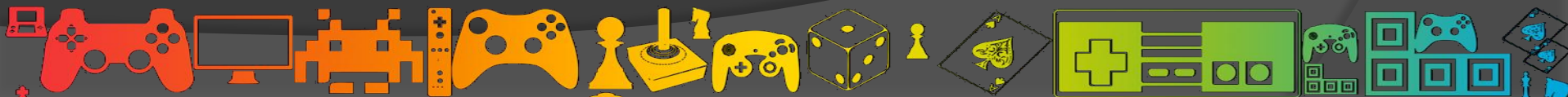
- As humans, we're also natural pattern matchers. As humans, we're also natural pattern matchers. You just noticed those two sentences were identical and put them together without even consciously thinking about it. As a human, you can't help it. We match similar objects together instinctively.
- Collection features prominently in collectible card games, casual games (match three), platformers (collect rings, bolts, or gold coins), or games where getting the most of a resource determines the winner.



# Core Dynamics

## ● Chasing or Evading


- Ancient humans had to run a lot, either to capture prey or escape predators. So it should not be a surprise to see this dynamic in many games. It is prominent in most contact sports, as well as video games like Pac-Man and board games like Scotland Yard.

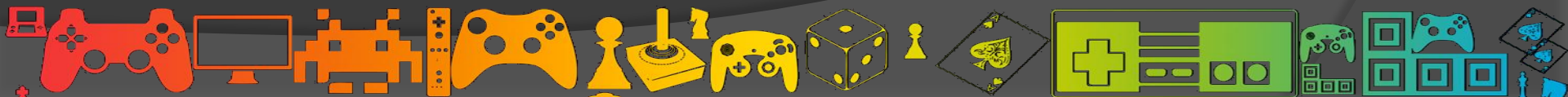




# Core Dynamics

## Trading

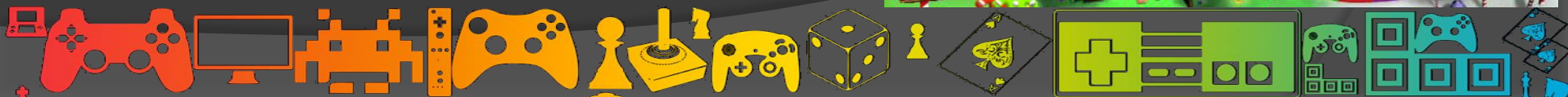
- Not all play is necessarily competitive. In many games, players cooperate with each other (even if they are opponents). With games that have multiple kinds of resources that belong to each player, it is common to see players trading and negotiating with one another.
  - Trading is a core dynamic of many non-digital games, such as Catan. It happens outside of the game with collectible card games. Even video games like Animal Crossing and Pokemon feature the ability to trade with other players.
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## ● Race to the End

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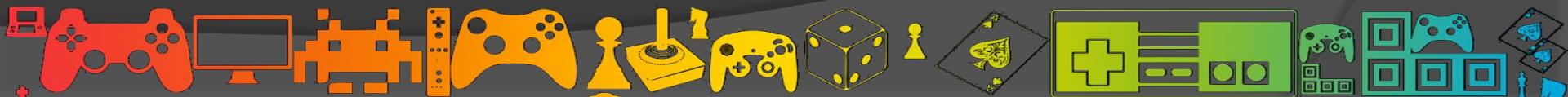


## ● Player actions

- ## ● Game mechanics

- ## Game dynamics

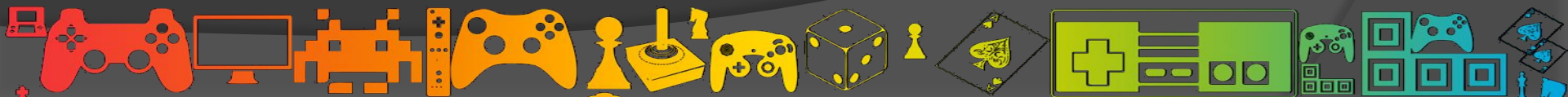
- Pattern of play that comes from the mechanics once they're set in motion by players.



# Game Terms

## Rules

- Setup: There must always be at least one rule that describes the initial setup and how the game begins.
- Victory conditions: There should always be at least one rule that describes how the game is won.
  - Some games, like open-ended role-playing games (RPGs), have no victory condition. Are they games?
- Progression of play. Who goes first, and how? Is the game turn based or real time? For turn-based games, does the game start with one player and then proceed clockwise, or do players bid resources in an auction for the right to go first each round, or is there some other method?







## Game goals

- Game theme, story or narrative

- ## Game State

- ## Game View

- Avatar

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