Thunderstruck Presentation

Connect Your Game Events and Understand your players' behavior

What is Thunderstruck:

A single platform that enables game designers to understand how changes to their game impact player behaviour.

Built for Web2 & Web3 classifications:

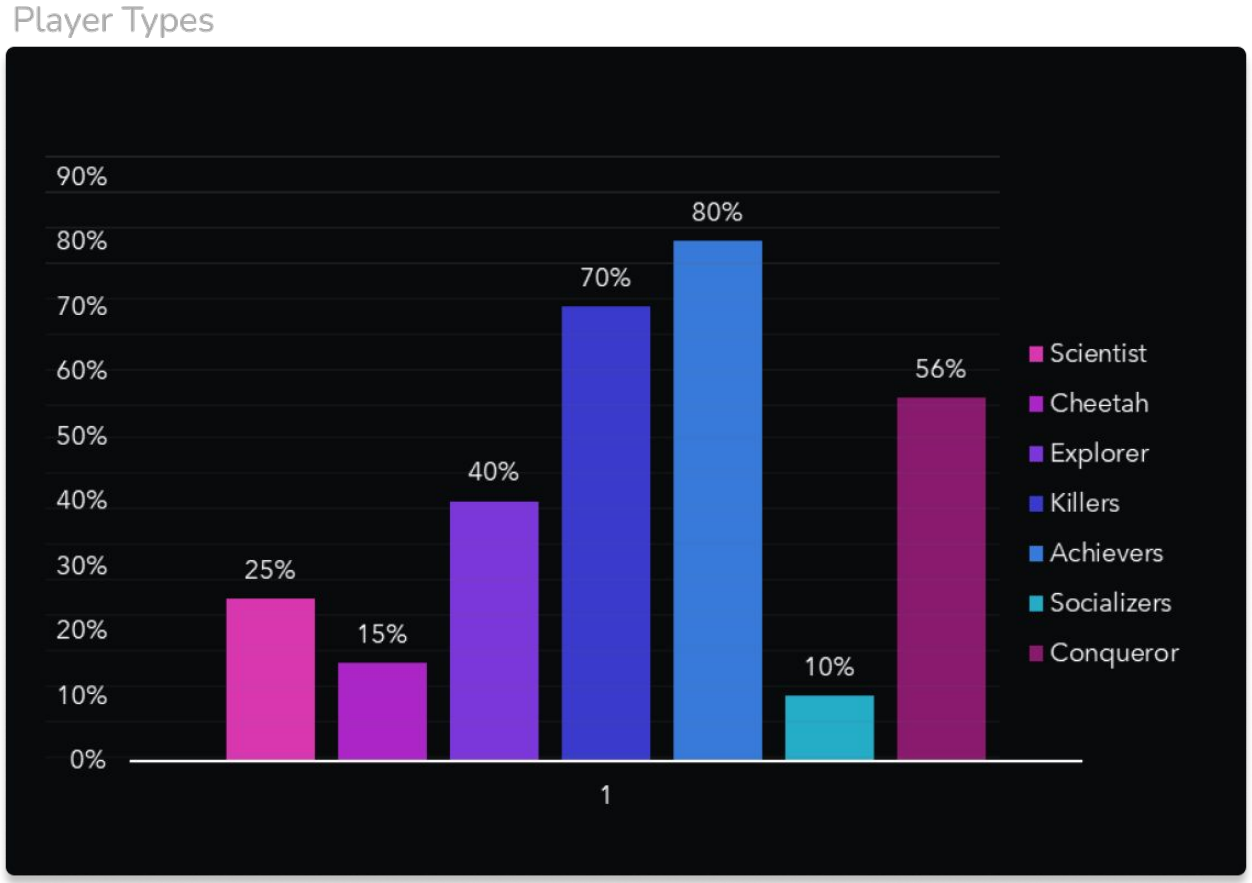
Thunderstruck models are trained directly from **player behaviour**. With these insights you can plan changes to your game based on the **mechanics** and play-styles that your users care about. And once your changes have been implemented, you can **track** user behaviour to see if your changes **encouraged** the **behaviours** you wanted.

Web2 Player Types:

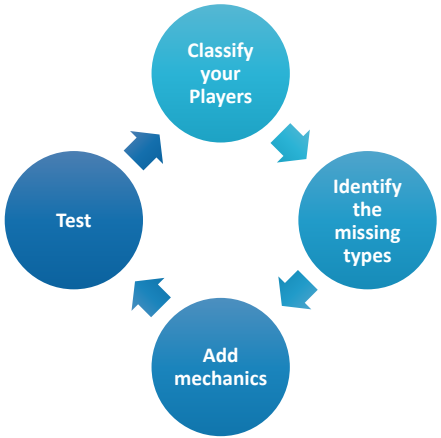
- **Killer**
  These players enjoy killing, creating chaos, and competitive elements most of all.
- **Achievers**
  These players are competitive and enjoy overcoming difficult objectives.
- **Explorers**
  Explorers seek to understand the finer details of game mechanics.
- **Socializers**
  Players that experience fun in interacting with other players through social systems
- **Speedster**
  They race to objectives in order to be among the first to reach the end-game
- **Scientist**
  Scientists seek to improve their skills by gathering resources and creating or improving items
- **Conqueror**
  They enjoy the struggle against adversity and beating impossibly difficult odds

Thunderstruck Results (Sample Data)

An example of an RPG game and the classifications of its users according to Thunderstruck.



Use Thunderstruck to classify your players.



Check the balance of the existing player type to find out what player types are missing from your game.

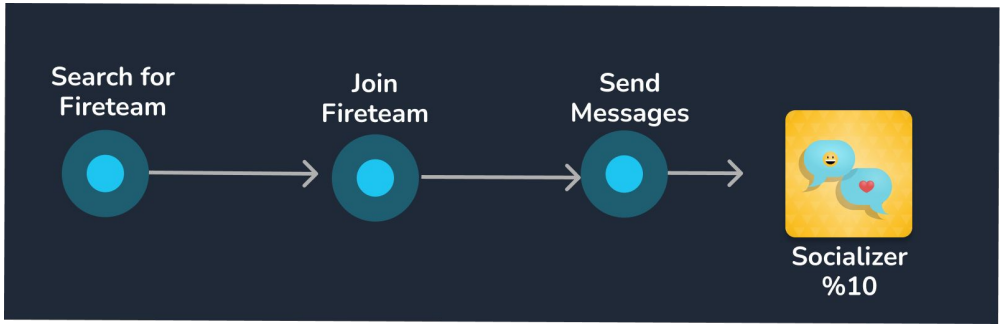
Add mechanics that will motivate the missing type to play.

Check the progress of your player types using progress feature in Thunderstruck

Why you need Thunderstruck

Thunderstruck would give Destiny 2 (as an example) the sequence of events that lead a player to be socializer (as they want to increase the socializers). If Destiny2 Knew that this was the most common events chain for their socializer, they could've add the Looking-For-Group feature mechanic much sooner.

Identifying the **critical paths**, that lead to **events**



Bayesian Networks

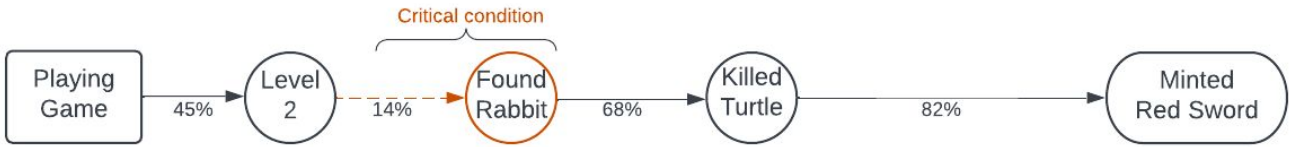
Simulating causal paths in virtual environments.

"A Bayesian Network is a probabilistic graph, that predicts the conditions that influence specific events."

How it works:

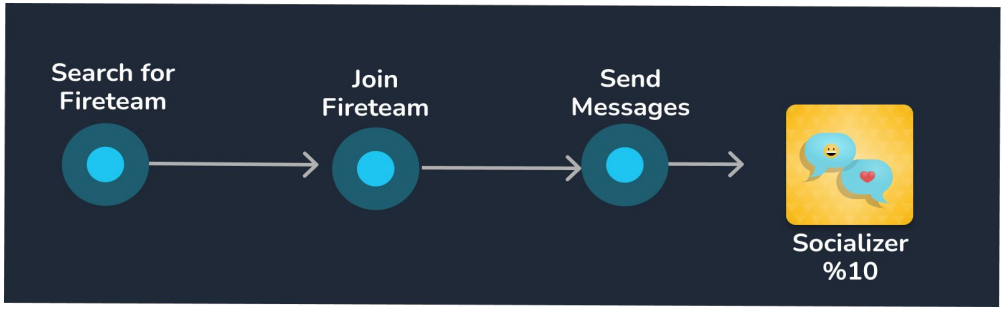
- Thunderstruck API consumes events.
- The events are updating the model's belief of what it means to be of a certain classification based on a probability score derived from the data.
- Critical paths are identified as causal steps of events.

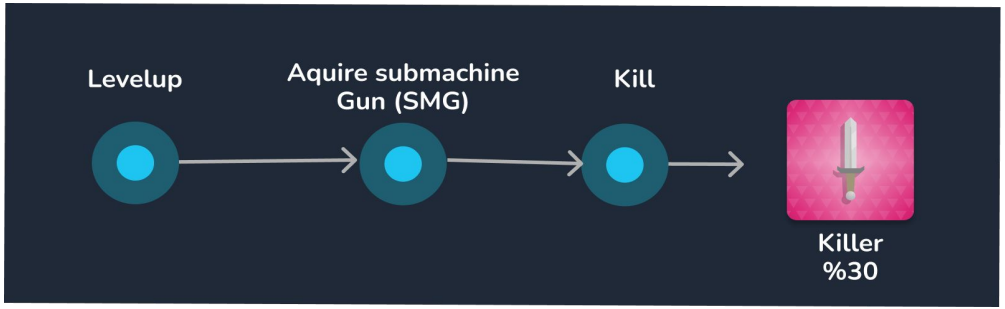
Example: Predict what makes a user mint the red sword when they play a game.

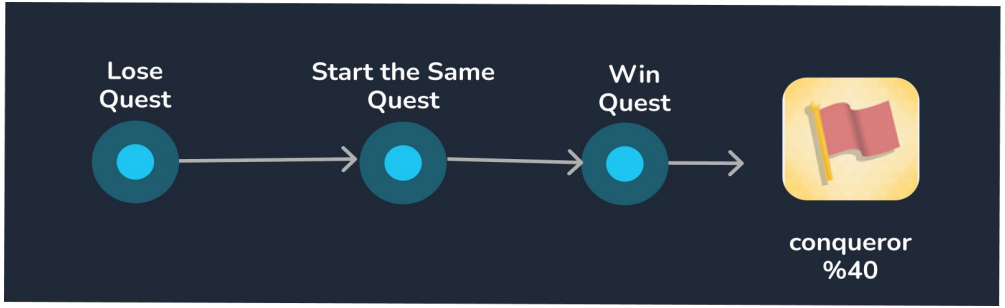


Sample of Bayesian Event chains

The bayesian event chains reveal the most critical paths that users take in order to reach a particular event (e.g. kill an NPC, mint an NFT etc).

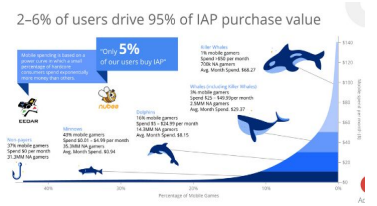






Web 2 Player Types Based on Spending

	Player Types	Quality	Why Developers need to know about this player type
Spender	Novice Spender	• Novice Spender is a player who purchases an in-game product within x days of registration. The number of days depends on the game itself.	• A study in data from 235 million players showed that the players who spend early in the game have a higher LTV. It also showed that 77% of players who made a second payment did so within two weeks of their first payment.
Spender	Whales	• Whales is a well-known name in F2P games and Gambling. In Web3, Whales are not different; they are active spenders who spend massive sums of money.	• Whales are valuable players for the developers as they represent 5% of active players and bring in 55% of monthly deposit amounts. Therefore, their activity must be monitored daily, then make sure they are aware that they are VIPs.
Spender	Dolphins	• Dolphins are players that, although they don't spend as much as Whales, are desired in a long-term economy.	• Game Developers need to know who the Dolphins are inside their game to keep them engaged and interested as they spend more time with a considerable amount of money.
Non-Spender	Reactivated Spender	• From the name, they made a payment in the past, churned, and then paid again	• Those player needs to be monitored and received attention as a study in data from 235 million players showed that most of these players would churn again within two weeks of their reactivation.
Non-Spender	Churn Spender	• Churn Spender used to be a spender and didn't pay during the past 21 days. Again, the number of days will depend on the game life cycle.	• The goal with this type is not only reactivation but knowing the reason that makes them churn. In other words, to address activity tier pre-churn (Using our Bayesian). Also, if the player used to churn a lot would not need attention as much as the first-time churner.
Non-Spender	Novice Non-spender	• Novice non-spender are the players that did not pay within the first 14 days.	• Developers need to engage this type quickly to motivate them to become highly active and make a payment, as a study in data from 235 million players showed that 64% who made a payment have done it within the first two weeks since registration.
	Active Non-spender	• An active non-spender is a player who did not make any payment but is still active in the game.	• The problem with this group of players is that they have a high probability of churning or causing a problem in the game economy. Therefore, the developer needs to address this is a problematic group.



Web 3 Player Types

Motivation	Player Types	Quality	Why Developers need to know about this player type
Purely Investment Motivations	Early Investor	• Early investors exist in the game early by having governance or gameplay tokens. They purchase collectable NFTs and in-game utility, so they always look for a game with a healthy economy and an extensive range of tradable assets.	• They are essential to a game's initial traction because most of them are thought leaders, influencers or financial institutions.
Purely Investment Motivations	Sponsors	• Sponsors only purchase in-game assets that can be earned by or lent out to other players.	• Sponsors are essential to the game's economy, requiring the player to own an asset to start the game. They spend a lot of money to have in-game assets, which could equal the spending of whale player types. Additionally, they allow many types of financial motivating players to exist.
Purely Financial Motivations	Farmers	• Most farmers are players from lower-income nations and are time-rich vs cash-rich. They play to win prizes in the game.	• Developers need to know If their game is filled with Farmers. It destroys the game economy even for web3 games.
Main motivation is fun. Secondary motivation is Financial	Web3 Competitive	• Web3 Competitive are highly skilled players. They don't necessarily have financial motivations, but they rank up and start earning through winning tournaments or streaming.	• Web3 Competitive are essential in any tournaments. Game developers want to ensure that their tournament has enough web3 Competitive to heat the competition up.
Purely Fun Motivations	Fun Seeker	• They are the closest to the traditional player who is motivated by the game's fun factor, while the potential to earn through playing is just a cherry on the cake.	• A good balance between Fun Seekers and Gold Farmers would lead to a healthy game economy. Therefore, developers need to monitor the percentage of this player type to ensure no inflation would happen in their game.

Why a community (Discord game community) needs Thunderstruck

Feature	Description
Attracting Scholars and NFT Buyers	Thunderstruck can understand the trading behaviour using the wallet address and understand what make them do specific behaviour
Retain their members	Thunderstruck understand what your member needs to stay active
Understand the events that made a member to leave the community	Thunderstruck gives the chain of event that happened before the member leave the community

Thank You