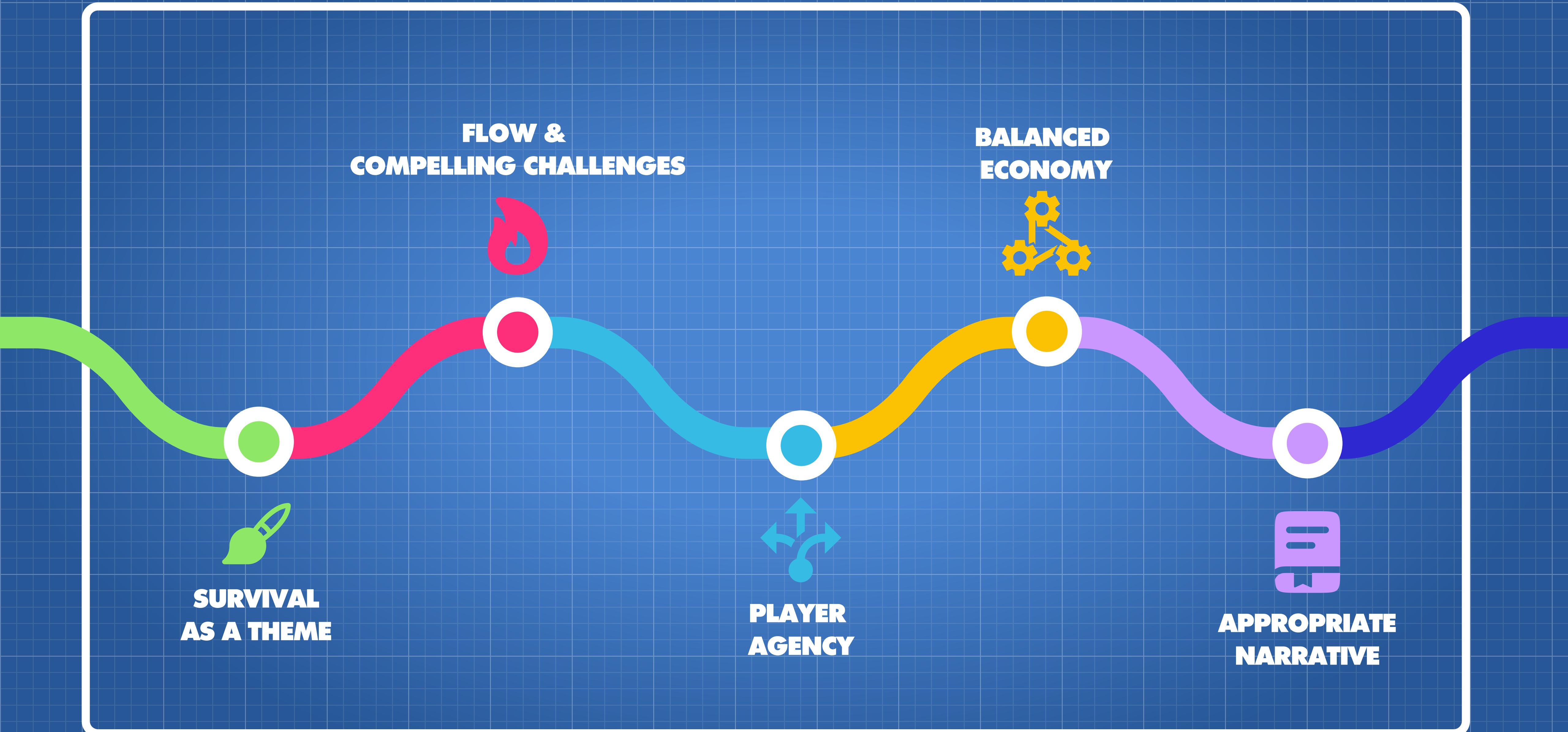




# **The Art of Survival: A Blueprint to Survival Game Design beyond the Genre**

by Néd Richard

# BLUEPRINT: SURVIVAL GAME DESIGN



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## EMBRACE SURVIVAL AS A THEME

- Survival, as a thematic element, is characterized by mechanics that simulate the experience of overcoming adversity in a **hostile environment**, pushing players to adapt, overcome, and **thrive**.
- This thematic framework is **versatile** and can be integrated into a wide array of game types. Despite their fundamental differences, the games showed on this page all incorporate survival mechanics.



AGAINST THE STORM



LETHAL COMPANY



MINECRAFT



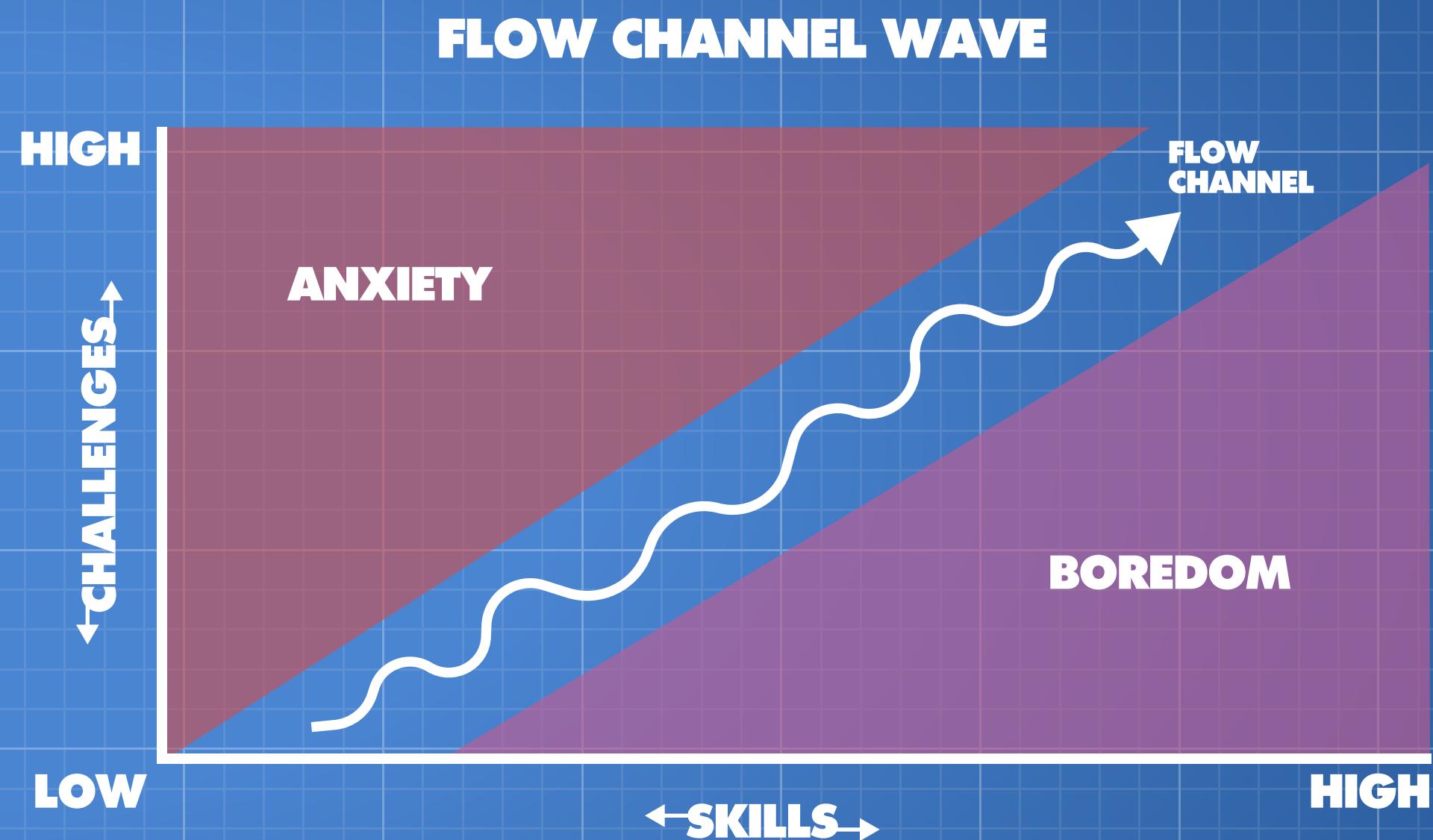
THE SIMS 4

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## DESIGN COMPELLING CHALLENGES

- According to the Flow Theory, **compelling challenges** are essential for games to deliver an **engaging experience**.
- The ideal difficulty curve is **nonlinear**, featuring peaks and valleys; moments of respite between challenging situations.
- Adjust the difficulty to suit a large range of types of players; a challenge too difficult will be frustrating, while one too easy will be boring.
- Balance is the key to an efficient Flow experience.

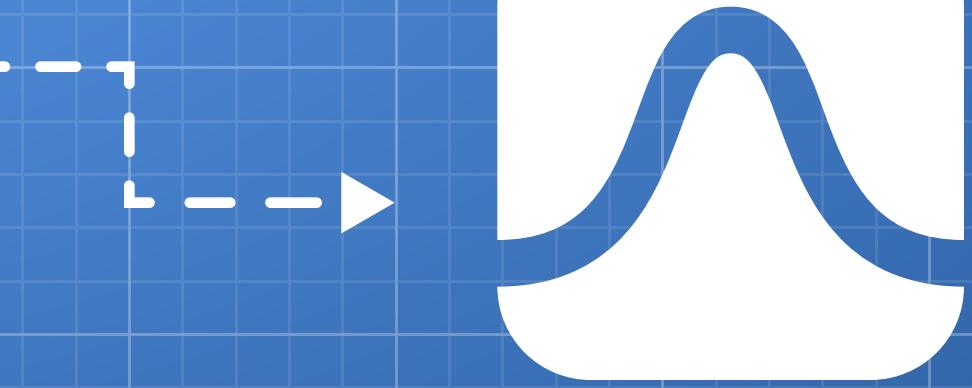
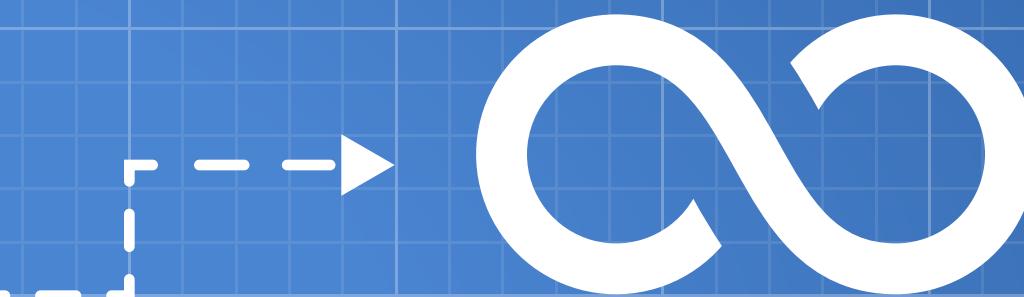


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## INDUCE FLOW THROUGH FEEDBACK LOOPS

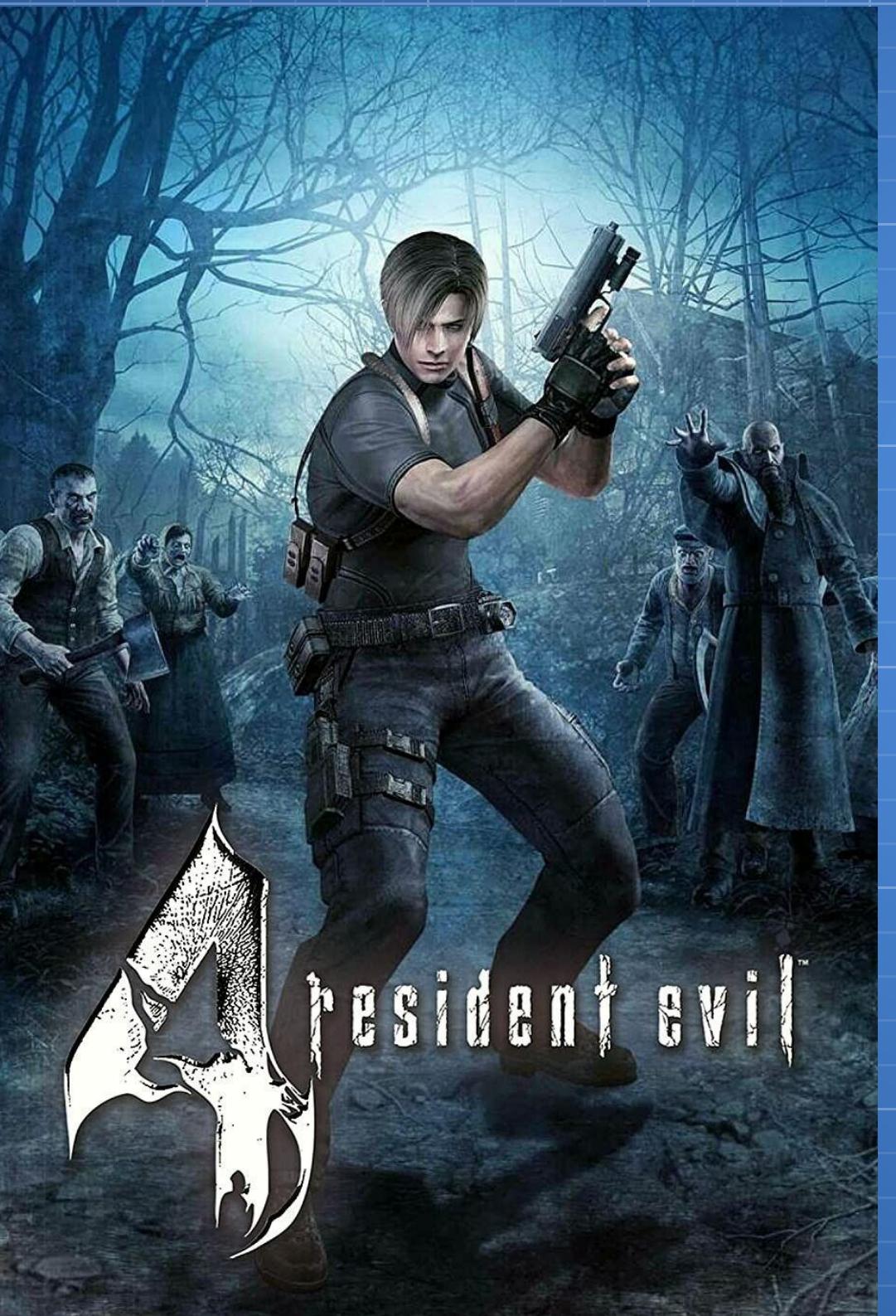
- **Feedback loops systems** are powerful tools for creating dynamic experiences that keep players engaged and in the flow.
- **Positive feedback loops** amplify the likelihood of certain actions to happen **again**, creating a snowball effect. Survival at its core is a quest to progression, leading to further progression.
- **Negative feedback loops** increase the challenge for players performing too well and provide leeway for those who are struggling. **Dynamic Difficulty Adjustment** (DDA) systems are essentially negative feedback loops designed for the purpose of accessibility and Flow.



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## NEGATIVE FEEDBACK LOOPS



CAPCOM, 2005

- Resident Evil 4's dynamic difficulty system functions as a negative feedback loop, **constantly adjusting** game values based on the player's **estimated skill level**.
- Number of enemies, items spawned and enemy behavior can change **dynamically** during play, depending on how well the player is performing.

Here, if Player Skill > Threshold,  
the game spawns 9 enemies



But if Player Skill < Threshold,  
the game spawns 7 enemies



! NEGATIVE FEEDBACK LOOPS MUST BE BALANCED SUBTLY  
TO AVOID BREAKING THE GAME OR PLAYER'S IMMERSION!

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## ∞ POSITIVE FEEDBACK LOOPS



HINTERLAND STUDIO, 2014

- The Long Dark's survival loop functions as a positive feedback loop: the **more** resources the player gathers, the **better** equipment they can craft, which allows them to explore **further** areas, where they can find **more** resources, to survive **longer**, and so on.
- However, this also extends to negative situations. For instance, death (if not permanent) severely handicaps the player with multiple penalties, increasing the difficulty and **drastically reducing their chances of survival**.

### CHEATING DEATH CONSEQUENCES

A small icon of a sand timer.	A small icon of a heart with a tear.	A small icon of a backpack.	A small icon of a red exclamation mark inside a circle.	A small icon of a campfire.
<b>ACHIEVEMENTS</b>  PROGRESS FOR ACHIEVEMENTS THAT REQUIRE COMPLETION WITHIN A SINGLE GAME WILL BE RESET.	<b>AFFLICION</b>  CHEATING DEATH WILL WEAKEN YOU TEMPORARILY, DIMINISHING YOUR CONDITION AND STAMINA RECOVERY.	<b>BACKPACK</b>  YOUR OLD PACK IS STILL IN THE WORLD, FIND IT TO RECOVER WHAT'S LEFT OF YOUR ITEMS.	<b>PENALTY</b>  YOU WILL CHOOSE BETWEEN A PAINFUL SHORT-TERM PENALTY, OR A MORE FORGIVING BUT PERMANENT ONE.	<b>RESPAWN</b>  YOU WILL HAVE TO CHOOSE BETWEEN THE RISK OF A SPAWN CLOSE TO WHERE YOU DIED, OR A SAFE BUT DISTANT ONE.

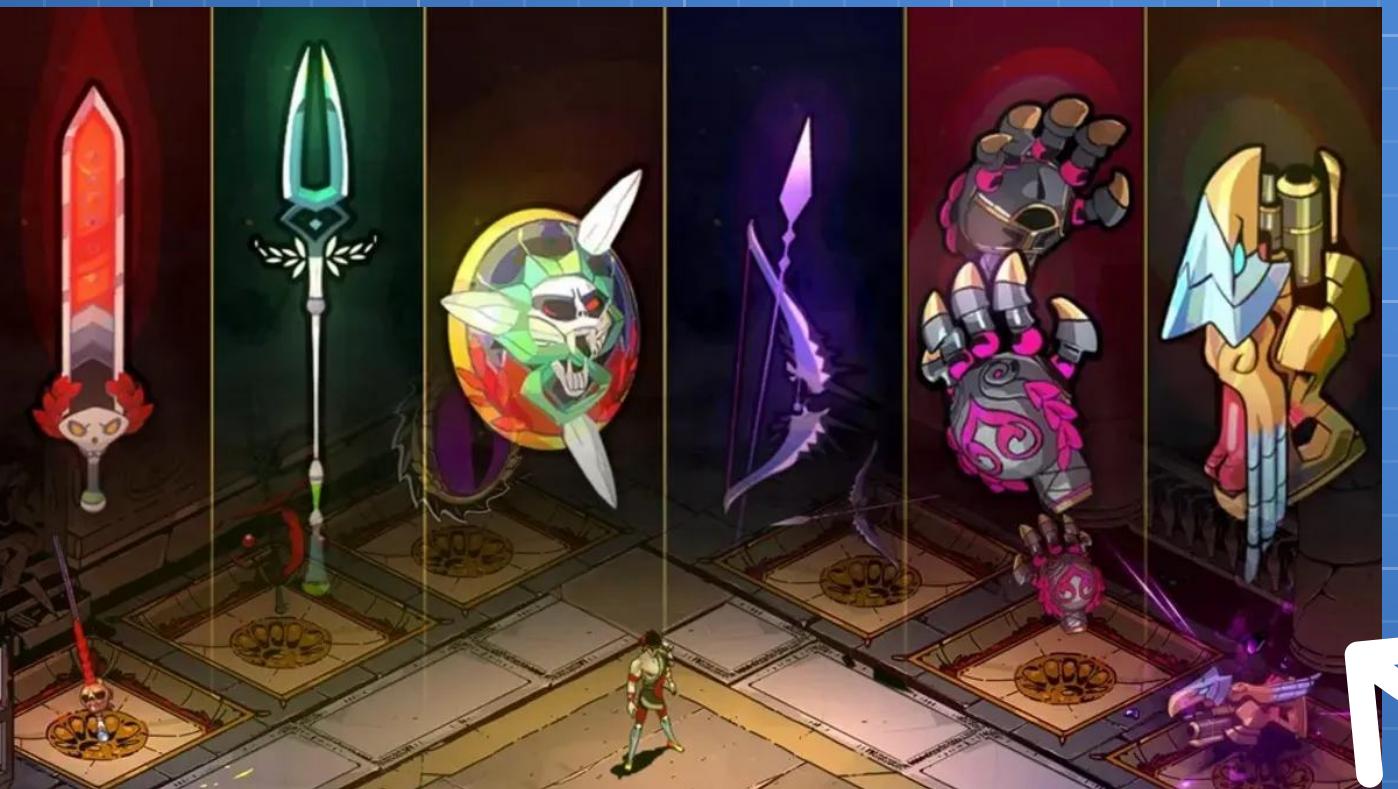
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## FOSTER PLAYER AGENCY

- **Agency** over the experience is essential. Offer **meaningful choices** and let players experience their **consequences**, whether positive or negative.



FROSTPUNK - 11 Bit Studios



HADES - Supergiant Games



- Allow players to **express themselves** through different playstyles by offering **diverse options** within your gameplay and progression systems.

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## FOSTER PLAYER AGENCY

- Engage players **emotionally** by presenting **wicked problems** that require them to choose between survival and morality.



THIS WAR OF MINE - 11 Bit Studios



The Legend of Zelda BOTW - Nintendo

- The **Risk & Reward** principle is a time-tested game design concept that adds depth to choices, enabling **strategizing** and **risk-taking**. Integrate this principle across the game mechanics.

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## UNDERSTAND YOUR ECONOMY

- The economy is a cornerstone of survival mechanics.  
**Balance** is crucial between sources, inventories, converters and drains.

- Sources add new resources to the economy.**
  - They can incentivize **player behavior**, as game progression is tightly linked to resource acquisition.
  - E.g trees, health potions, enemies...
- Inventories store player's resources.**
  - Their design can largely influence players' relationship to items, depending on the **size limits** of the inventory.
  - E.g Backpacks, personal chests, wallets...

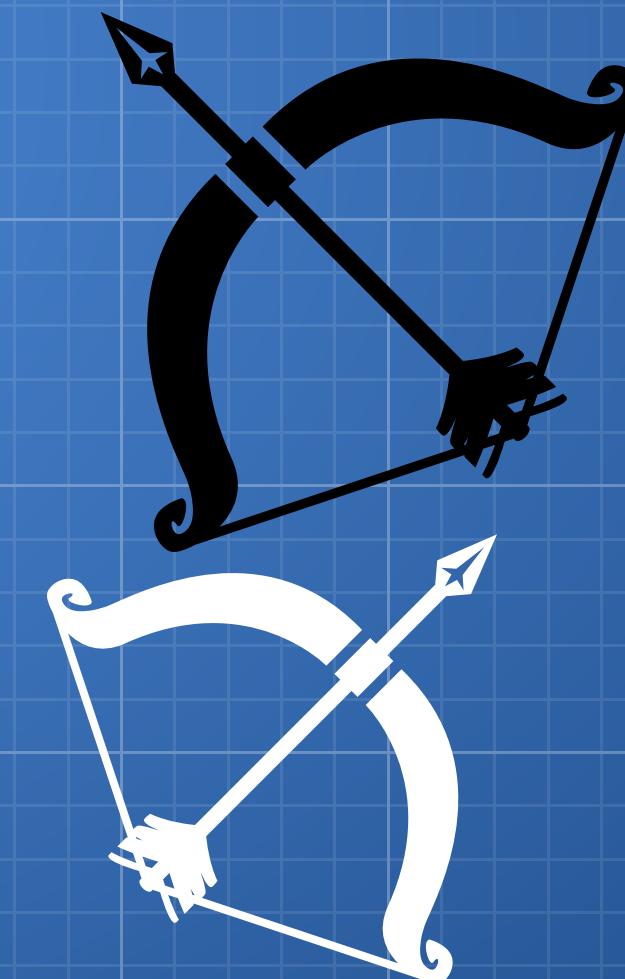
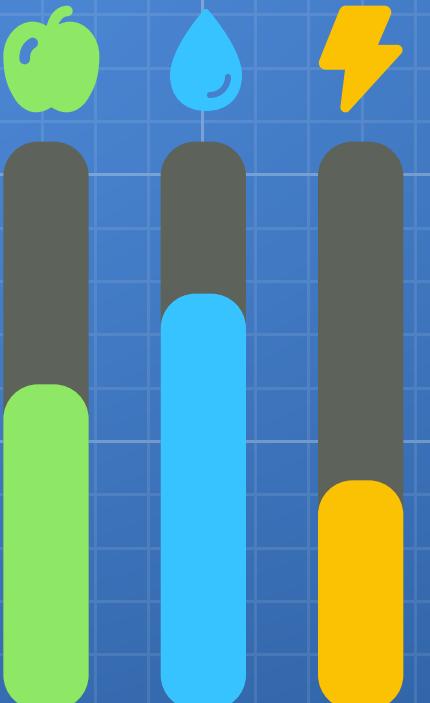


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## UNDERSTAND YOUR ECONOMY

- **Converters** convert one type of resource into another.
  - Often, specific resources such as crafting materials or money value resides only in interacting with a converter, which provides more useful items to players.
  - E.g. Crafting tables, shops, player level gauges
- **Drains** remove resources from the economy.
  - Incentivize players to get back to the sources to recollect resources they've lost.
  - Encourage resource management, strategy mix-ups, risk-taking.
  - E.g Diminishing gauges, weapons using ammo



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## BALANCE YOUR ECONOMY

- Add a degree of randomness to the economy, it is beneficial to keep the experience unpredictable and interesting.



MINECRAFT - Mojang Studios



SIGNALIS - Rose Engine

- Design systems that encourage players to engage in management and decision-making, such as inventory management and crafting with scarce resources. Management provides a good downtime to action.



THE SIMS 3 - Maxis

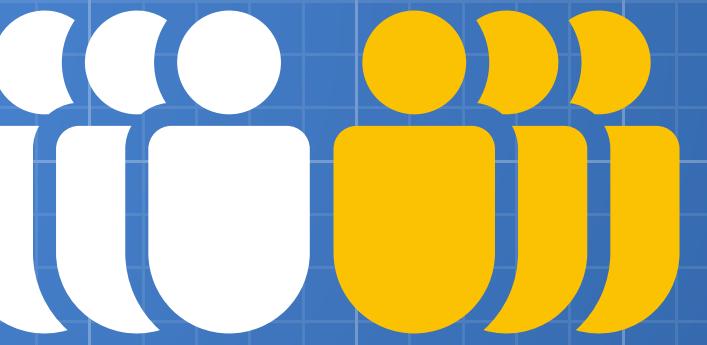
- Resources are highly valuable to players; it is essential to ensure they are not taken away unfairly, as this can lead to frustration.

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## EMBRACE THE APPROPRIATE NARRATIVE

- **Narration** is a key to player engagement in games, it can provide a large spectrum of emotions. Nonetheless, take note that survival games approach it differently due to the challenges inherent in their mechanics.
- **Understand your audience.** Different types of narratives will resonate with different players: some prefer to come up with their **own goals** in a sandbox (emergent storytelling), while others prefer **clear objectives** within a **structured** storyline (embedded storytelling).
- **Emergent storytelling** is a very popular type of narrative, more likely to happen in complex **interconnected systems**. **Embedded storytelling** offers less freedom but is **easier** to implement. Choose a method that works with your **scope**.



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## THE ISSUES WITH AUTHORED NARRATIVE

- Crafting authored story beats around survival mechanics is notoriously challenging. Here are a few examples of how to handle it effectively:
  - Integrate the mechanics into the narrative, making scavenging and surviving an integral part of the story to maintain immersion and pacing, like in *The Forest*.
  - Alternatively, consider separating the game into different modes for sandbox survival and narrative-driven gameplay, like in *The Long Dark*.
  - Alter the downsides of the surviving mechanics to avoid a fail state when the player is engaged with story beats, like in *Citizen Sleeper*.



**THE FOREST - Endnight Games Ltd**



**THE LONG DARK - Hinterland Studio**



**CITIZEN SLEEPER - Over The Age**