

# Game Biz

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@texpine



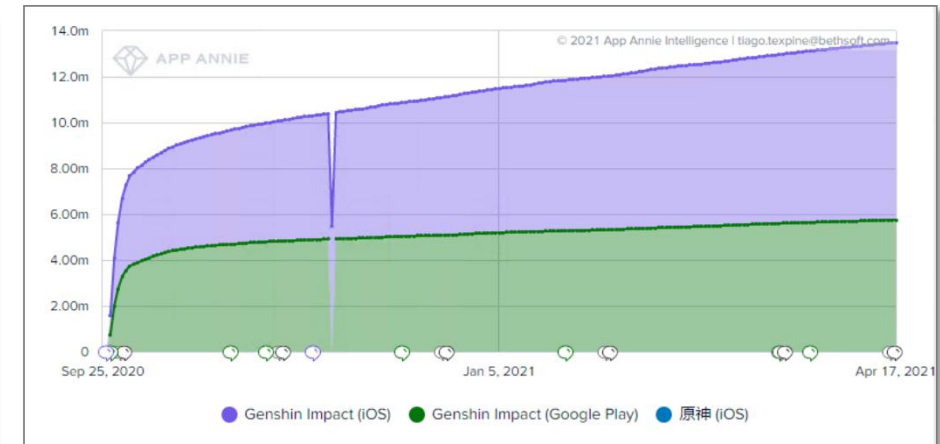
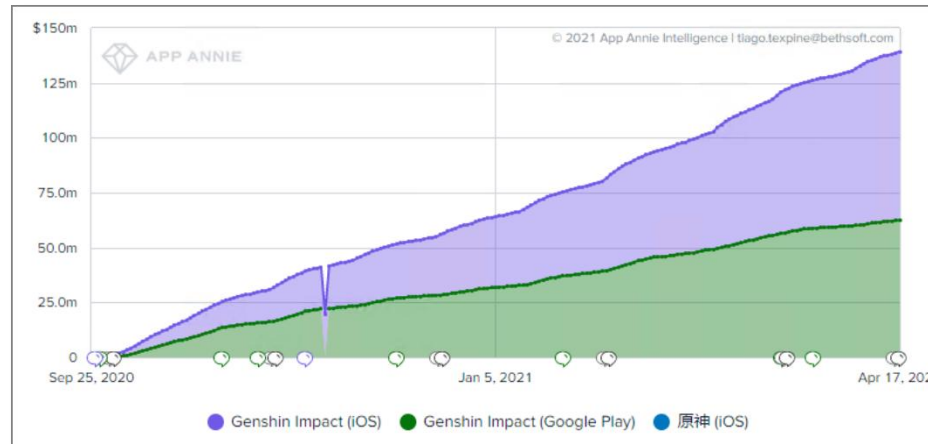


# Case Study: Genshin Impact

A phenomena in multiplatform free-to-play

# Genshin Impact

- Open world RPG with very high production values.
- Game of the Year on Google and Apple stores.
- Blatantly lifting themes and mechanics from Breath of the Wild...
- ...but also *praised* for having *better* progression mechanics and more rewarding leveling systems.
- Major milestone for Chinese-developed games in general - 300+ dev team, est. \$30+ million budget.
- About \$10 of revenue per user, very good.

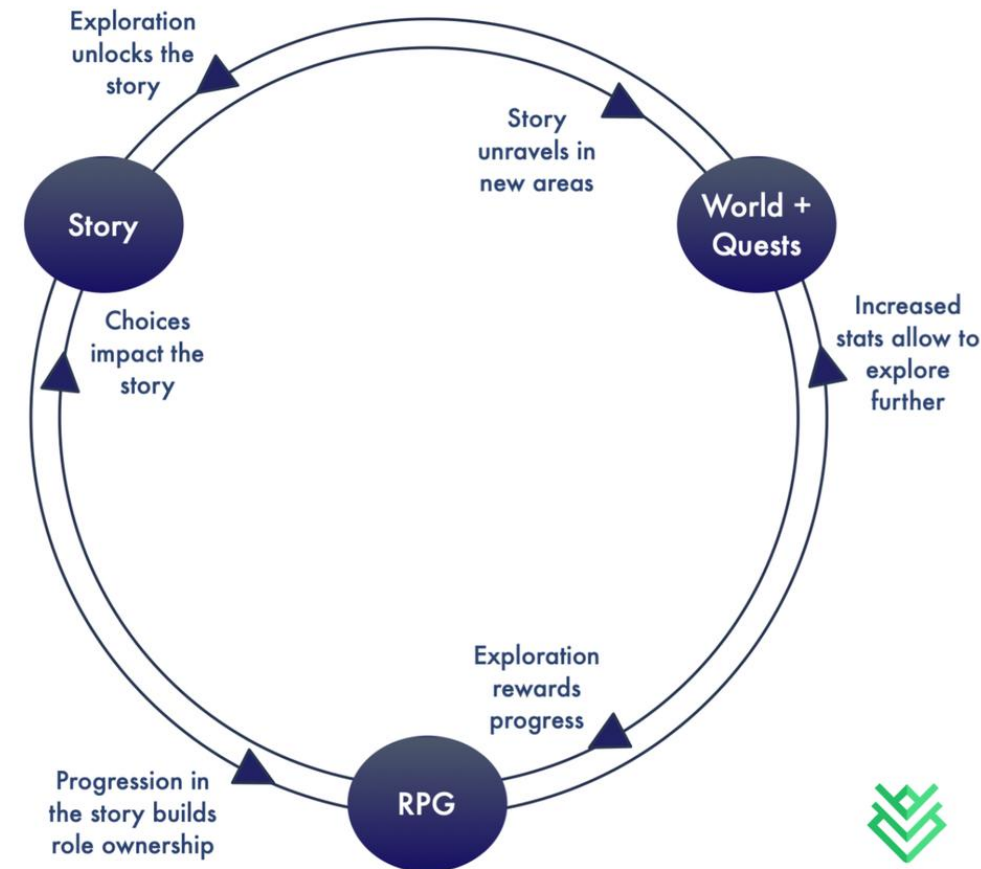


# Loop

Classical open world RPGs are built on a tight synchronisation between three core design pillars - narrative, exploration, and progression.

1. The more the world is explored...
2. The more of the narrative is unraveled...
3. The more the player buys into his role in the world...
4. The more the need for the player to level up to keep up with the world, and the loop goes on.

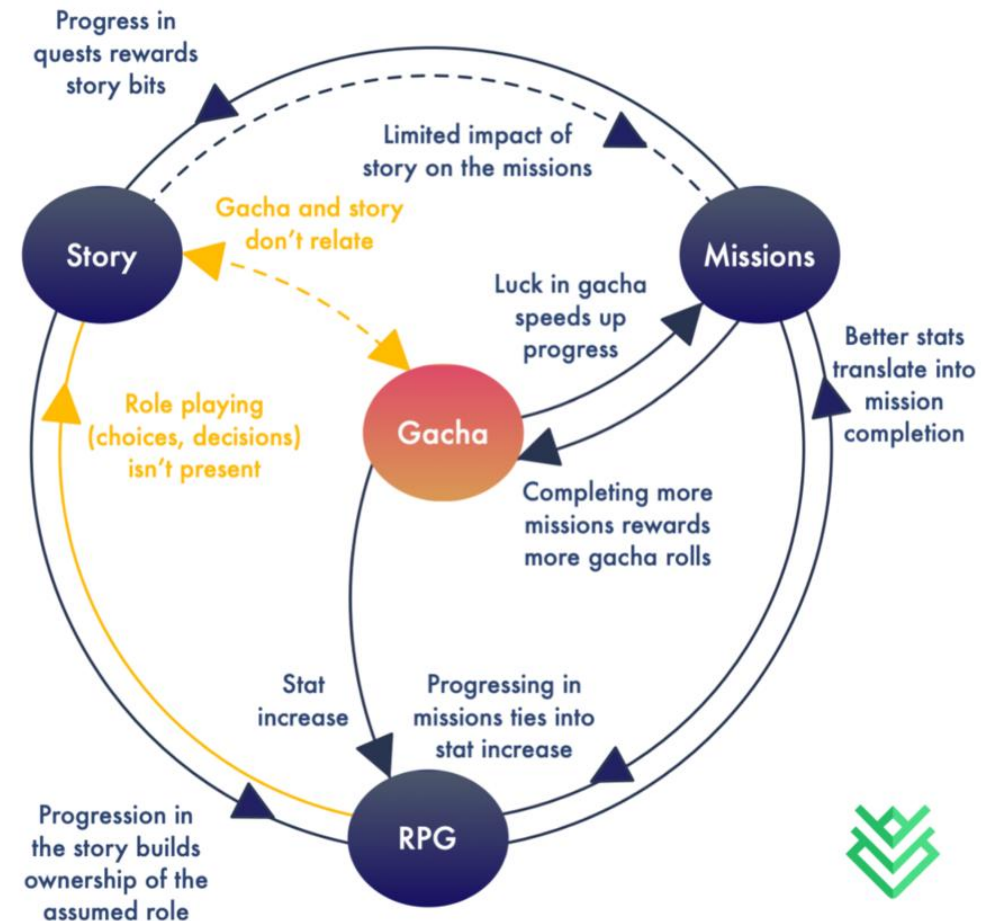
When done properly, this can be a very powerful loop that drives perpetual fun and sustains the long-term player experience.



# Loop

Most free-to-play action RPGs of today also rest on the same three core design pillars, but add to the mix a gacha - loot boxes.

1. Same overall loop of classicals: the more a player completes linear missions, the more narrative and rewards unlocks, and the more the player buy-in, etc.
2. But the **difficulty of linear mission content scales over time**, which incentivises to upgrade characters and weapons through systems that require a lot of resources.
3. The player could choose to grind enough resources or he could choose to invest in the game's gacha systems to boost his progression speed.



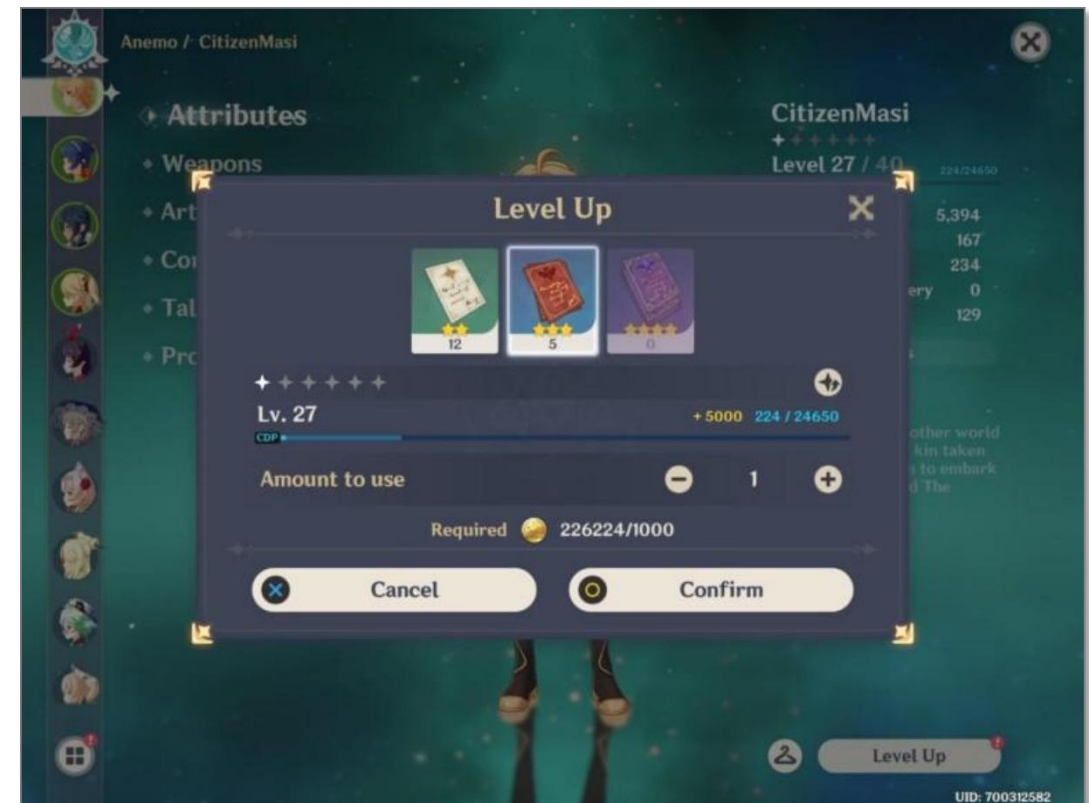
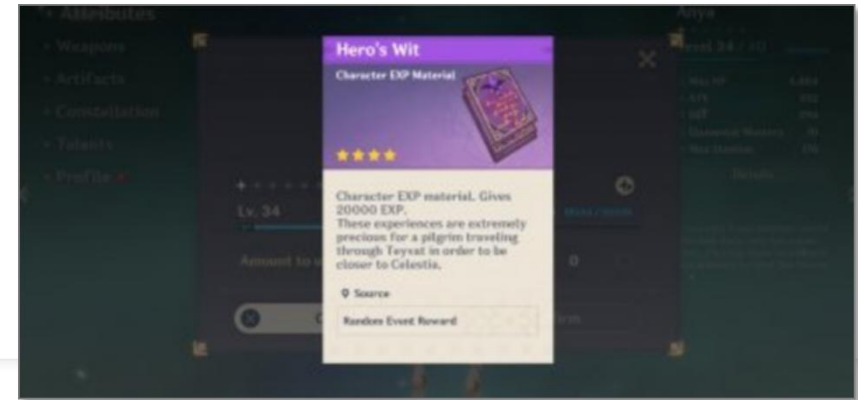
# Combat

- Virtual joystick, action RPG style.
- The combat layer use an elemental system like many RPGs.
  - Certain elements counter or synergize with others and etc.
  - Elements are used across many systems: Bosses, quests, materials, upgrades, etc.
- Players are supposed to *switch characters on the fly* to choose the best approach to each enemy.
- Elemental affinities are also utilized in puzzle design in the world.

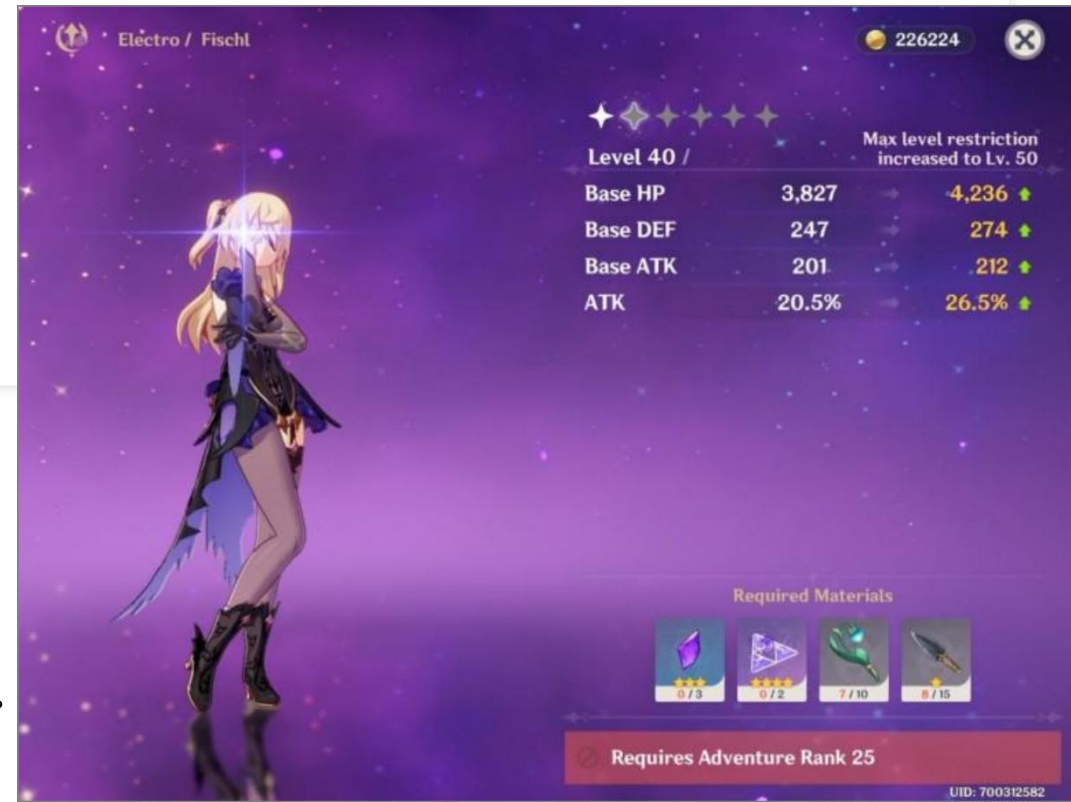


# Character Leveling

- Basic way to upgrade characters.
- Players get XP from killing monsters and by using **XP books**.
- Although you do XP for defeating enemies, it's very little compared to books.
- At some point, any character reaches a maximum XP level that can only be increased by *Ascensions*.



# Character Ascensions



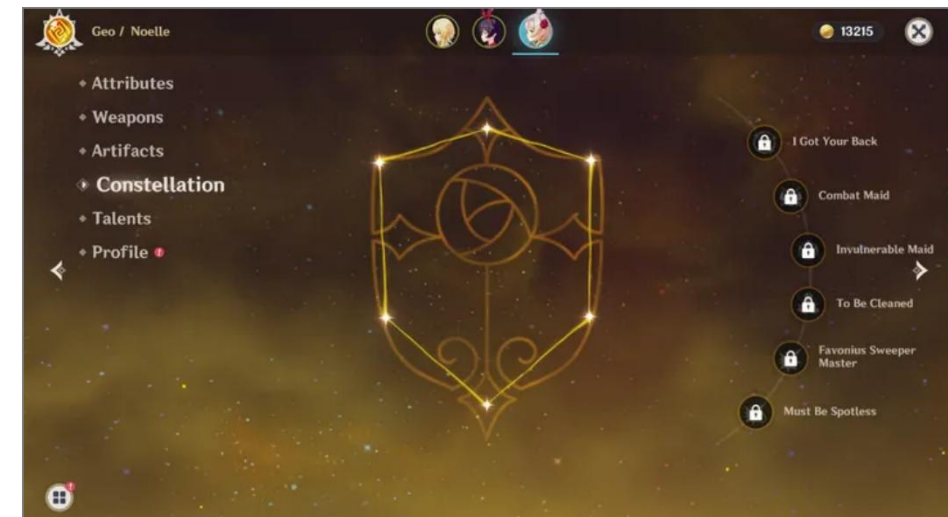
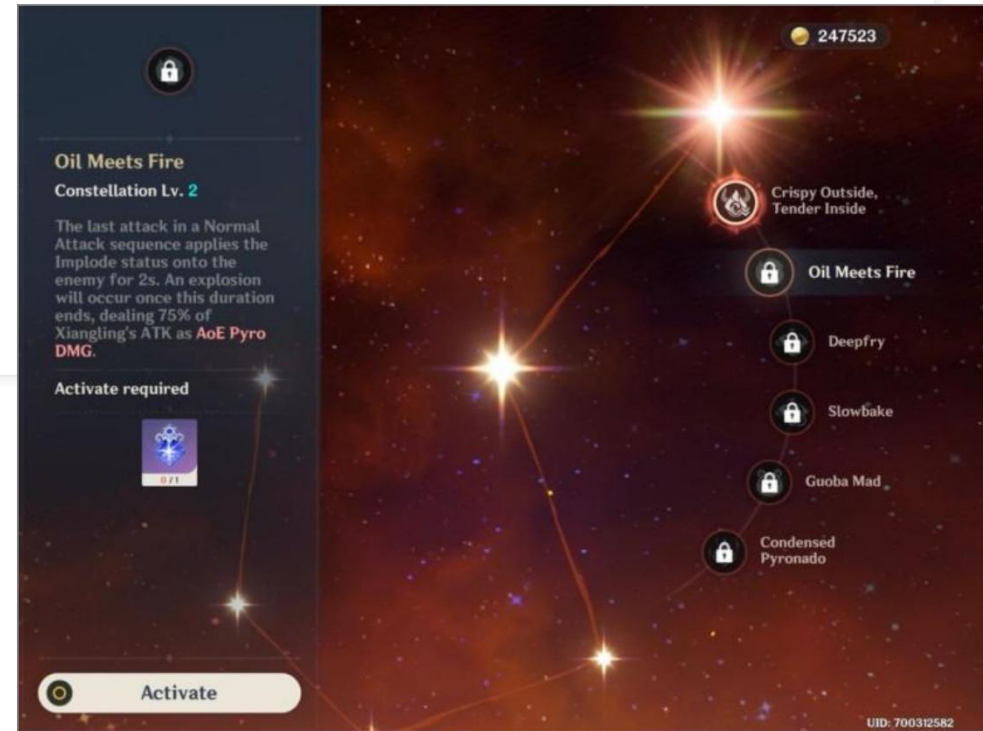
- When a character reaches a level cap, players need to Ascend the character to continue leveling through XP.
- To ascend, players need to collect specific materials.
- Ascension materials are found from dungeons (Domains) or as quest rewards.
  - Most of these materials are grouped by element (same elemental system of combat).
  - All characters require ascension materials of the same element they use
- Specific materials only drop in Weekly Bosses.

WEEKLY BOSS TALENT ASCENSION MATERIALS								
								
Dvalin's Plume	Dvalin's Sigh	Dvalin's Claw	Tail of Boreas	Ring of Boreas	Locket of Boreas	Tusk of Monoceros Caeli	Shards of a foul Legacy	Shadow of the Warrior
								
Bennett	Amber	Lisa	Qiqi	Barbara	Fischl	Albedo	Diona	Ganyu
								
Diluc	Beidou	Noelle	Venti	Keqing	Kaeya	Xinyan	Childe	Xiao
								
Jean	Chongyun	Razor	Xingqiu	Klee	Ningguang	Zhongli	Hu Tao	Kazuha
								
MC	Xiangling	MC (Geo)	Mona	Sucrose	Sucrose	Sucrose	Sucrose	Sucrose



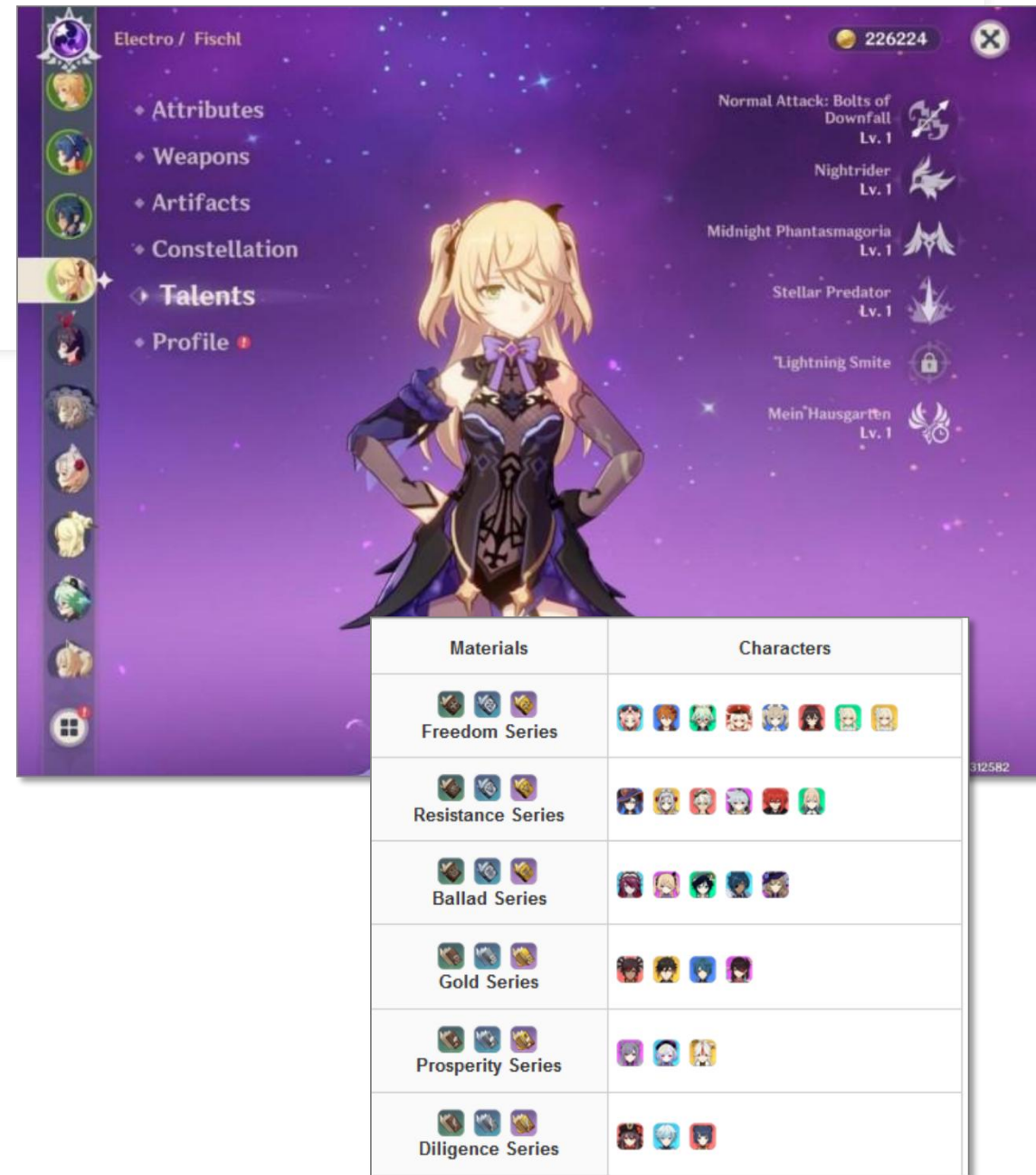
# Constellations

- **Passive boosts** for each character like in Skyrim.
- But doesn't unlock the with XP leveling - you'll need **duplicates of Characters**.
  - Except the *main character*, which is just by completing main quests.
  - To get duplicates, you run **gachas / loot boxes** (called "Wishes").
- Each duplicate creates a Stellar Fortuna that can be applied to the Constellation of that character.
- To upgrade a whole Constellation, you'll need to pull duplicates from gacha *seven times*.
- System to *sink character duplicates*



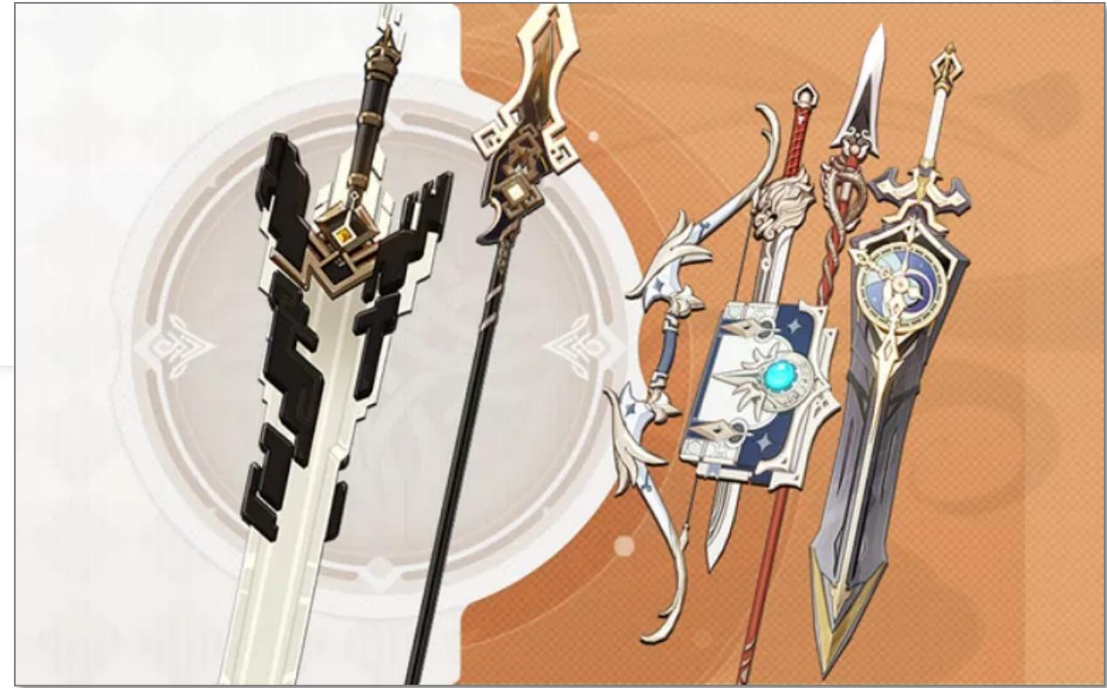
# Character Talents

- Each character has 6 different **Talents** to use.
  - 3 Combat Talents and 3 Passives.
  - 2 Passive Talents are unlocked after Ascension Phase 1 and 4.
- Combat Talents are always:
  - Normal Attack
  - Elemental Skill
  - Elemental Burst
- Talents are **upgraded separately**
  - But they require certain **levels of Character Ascension**.
  - Require extra special materials obtained from dungeons (Domains).
  - Receipts vary *by character*.



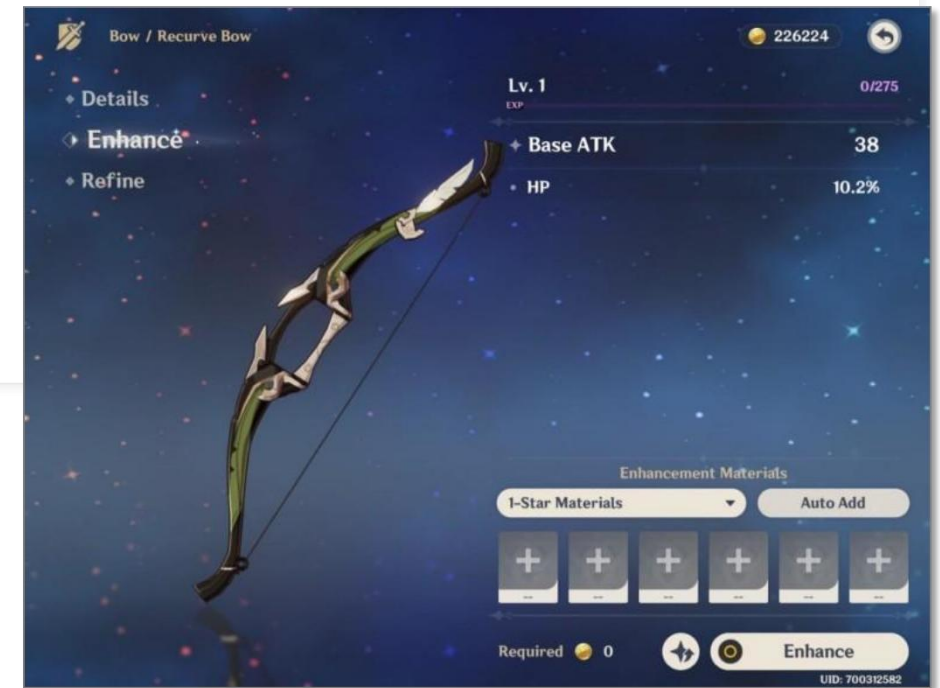
# Weapons

- Each character can use only a **specific type of weapon**.
  - Kayeya uses swords, Fischl uses bows.
- Weapons can be swapped based on their stats and specific bonuses.
  - For example, for Bows, the player can choose a headshot bonus on bows vs. , or another one likes a bow that has a higher critical hit chance.
- Just like Characters, Weapons are also be upgraded in several ways to improve their stats.



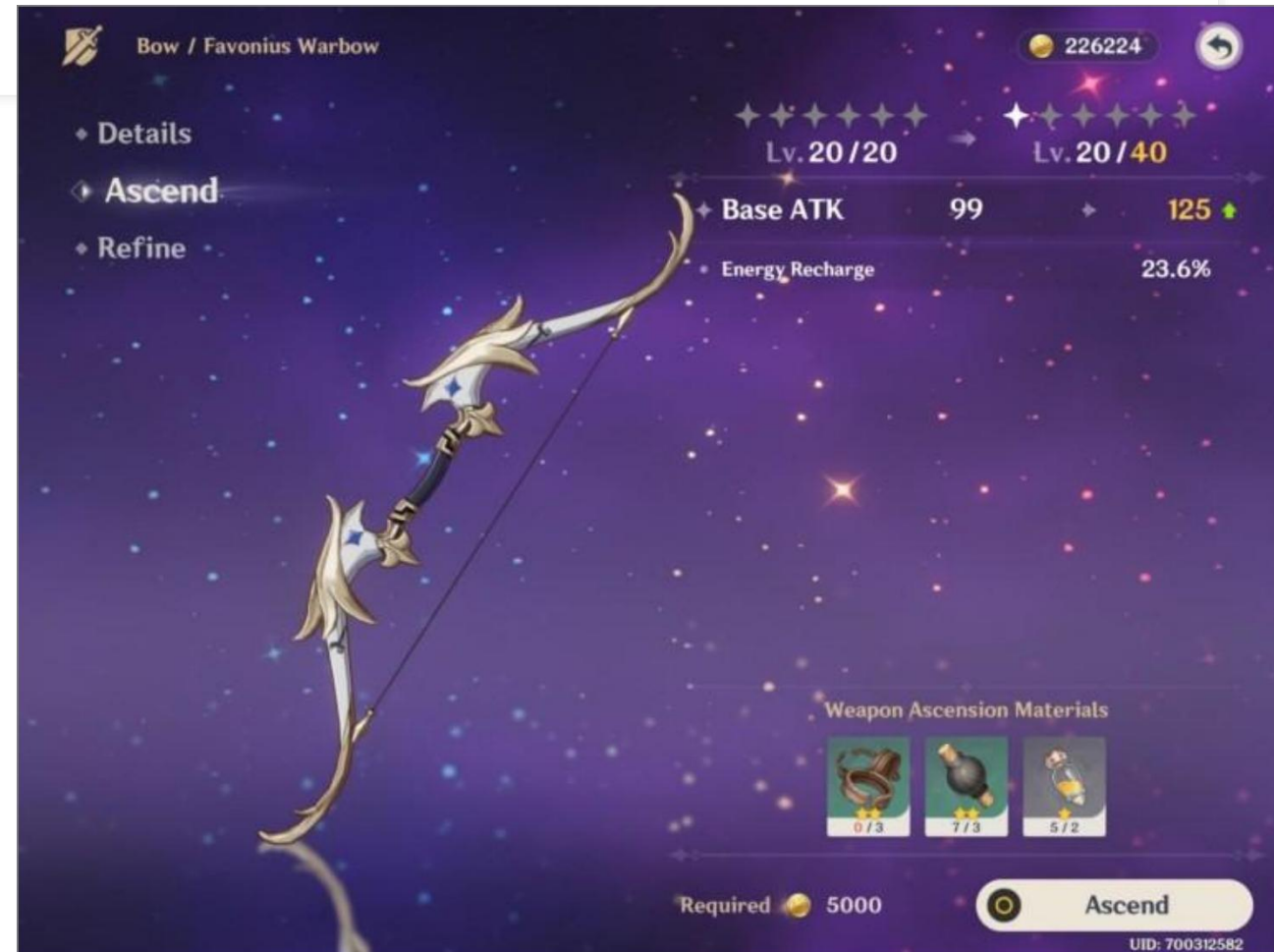
# Weapon Enhance

- The basic weapon upgrading layer increases the level of the weapon.
- To enhance weapons, players can use:
  - Enchantment Ores
  - *Fuse* other weaker weapons as XP.
- System to sink excess inventory and loot.
- A weapon's maximum level is increased every time it Ascends, just like characters.



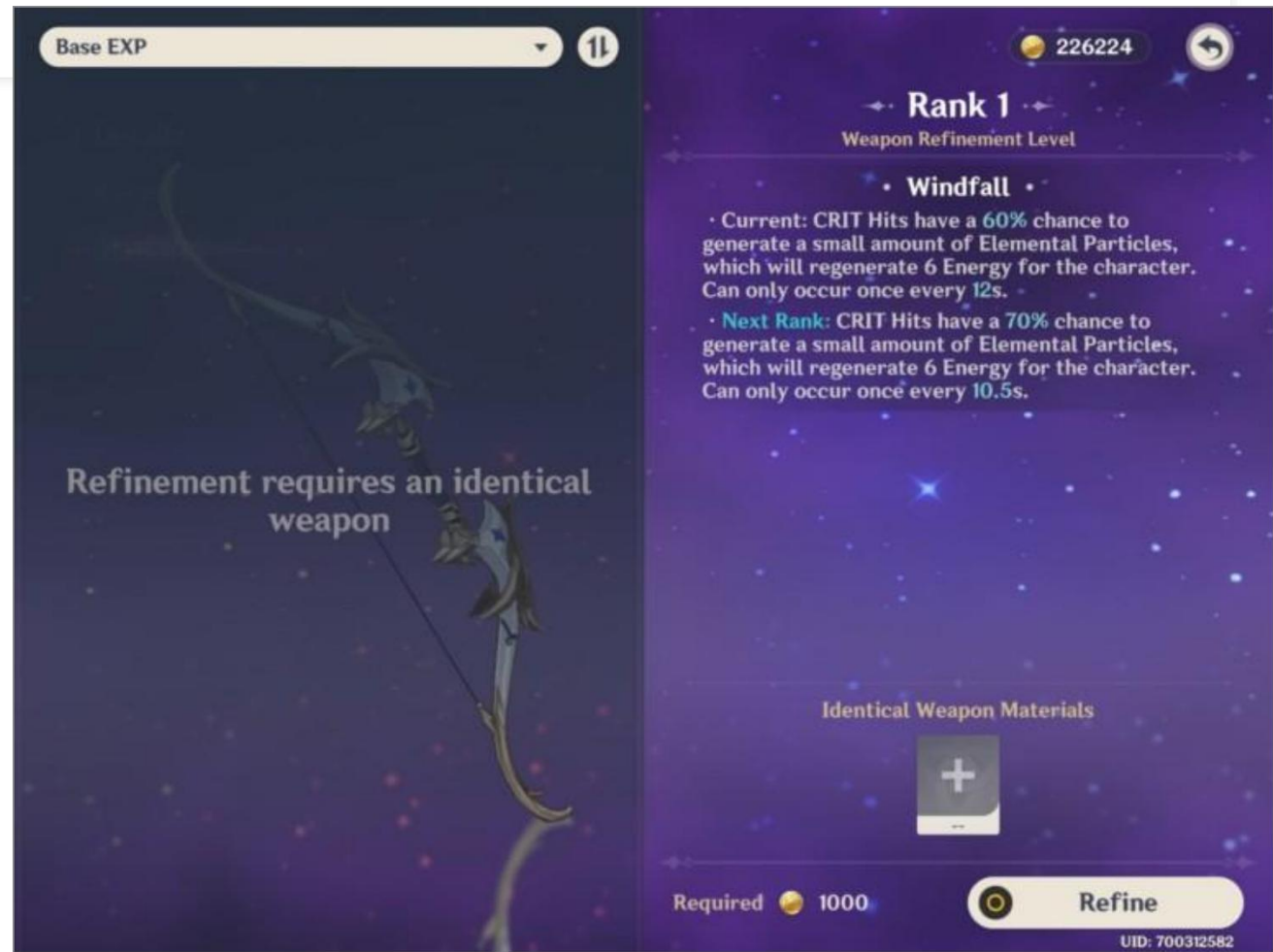
# Weapon Ascension

- In a similar manner as with characters, players need to **Ascend** weapons when the level cap is reached.
- Specific Ascension materials are necessary.
  - Each weapon has a specific receipt of what materials.
  - These materials can be found from dungeons, exploration, or as quest rewards.



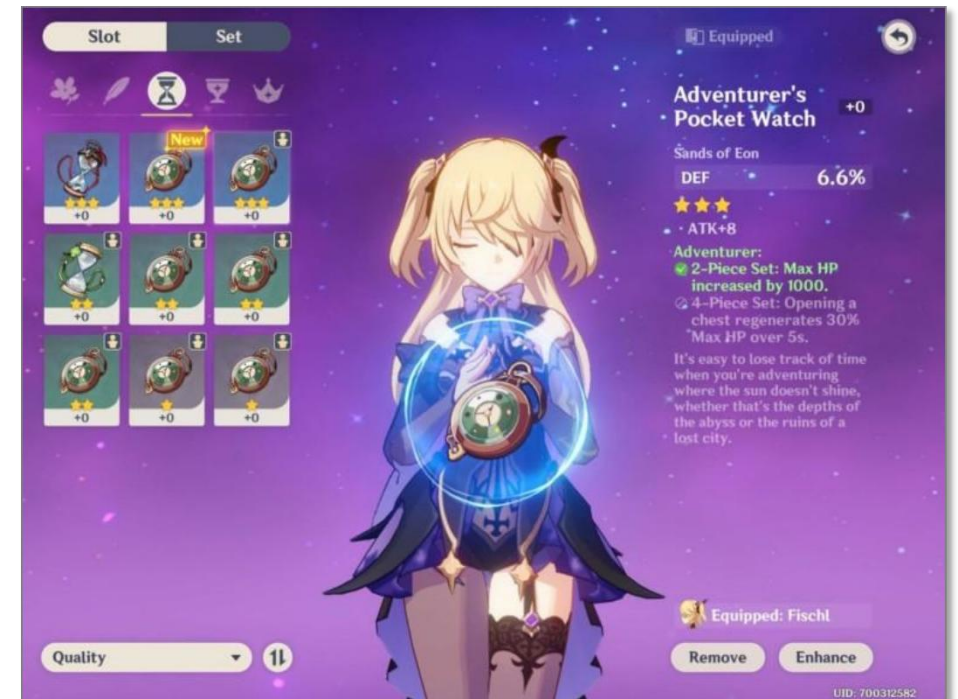
# Weapon Refinement

- Again similar to characters, a Fusion system:
  - When a player acquires a **weapon duplicate**, they can combine it with another same weapon to “refine” it.
- This improves the weapon’s main ability.
- System to Sink duplicates earned from loot and gacha.



# Artifacts

- Each character has 5 slots where different Artifacts can be placed.
  - Items differ quite a bit on what kind of stats they boost
  - Combined with Talents and Constellations enable different character builds.
- Different characters *cannot equip the same artifact at the same time*,
  - But they can be unequipped or swapped between them.
- **Sets:**
  - Equipping Artifacts from the same set gives the character a set bonus.
  - Sets of 2 or 4. 1-piece as Boss loots.



# Artifacts Enhance

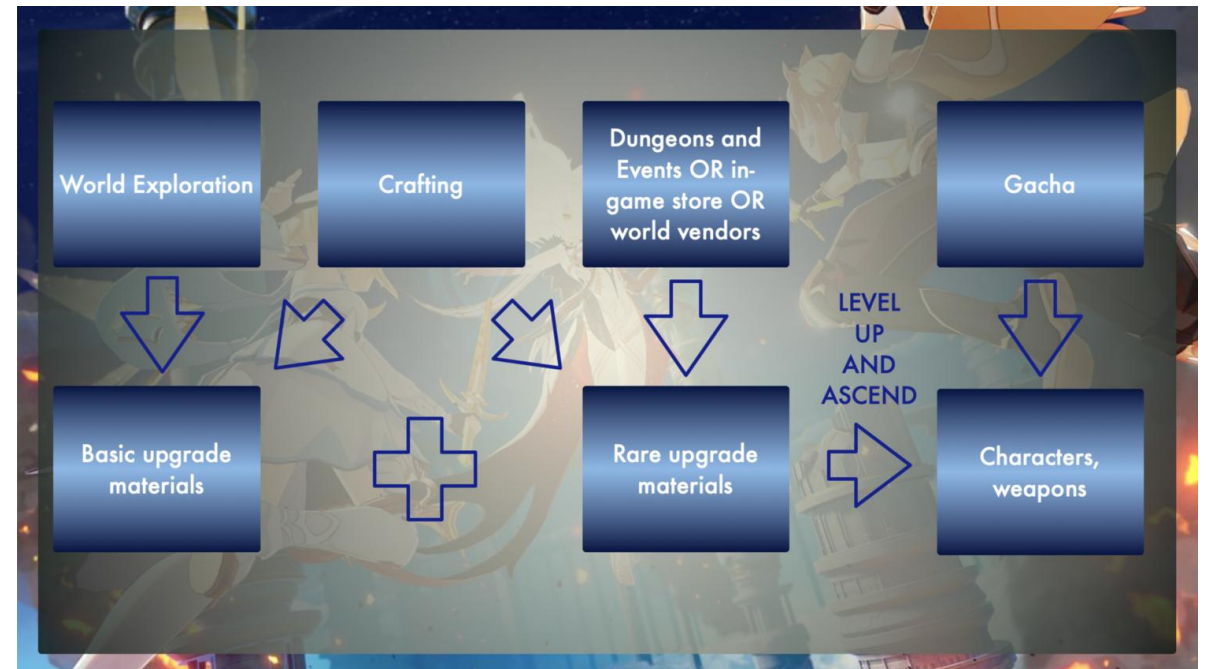
- Artifacts come in different rarities - **star levels from 1 to 5** - and that can't be changed
- There is only one way to upgrade them: enhancing.
  - Exactly like characters and weapons
  - Done by **fusing spare Artifacts** as XP fodder.
- Sink of extra Artifacts obtained in gachas.
- Upon enhancing an Artifact, there is a *small chance that the artifact will receive  $\times 2\sim 5$  the normal amount of EXP.*
  - Random element to incent fusions.





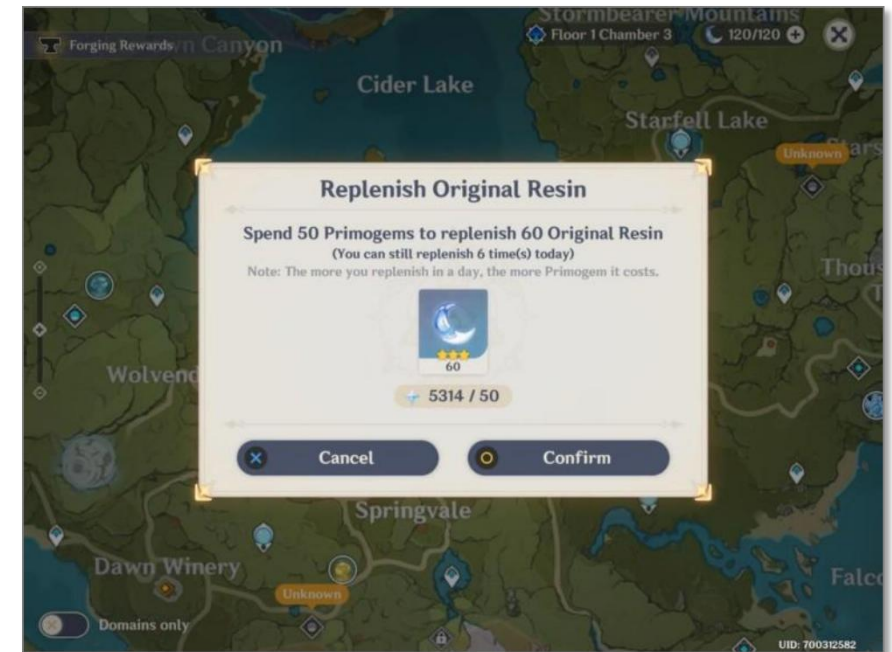
# Open World and Quests

- **Main Quests** are very linear and good for new players. Main source of upgrades for *the main character* (the Traveler).
- **Side Quests** require exploration and offers a lot of design variety: there are puzzles, flying tasks, and even sneaking missions.
- The open-world has been crafted with care; often finding interesting stuff along the way and getting sidetracked.
- But a fundamental problem in the end game is that **the world devalues the gacha**
  - The rarest materials for upgrades are *mostly* via Resin game modes.
  - Those turn world exploration as a meaningless source of materials for higher level players.



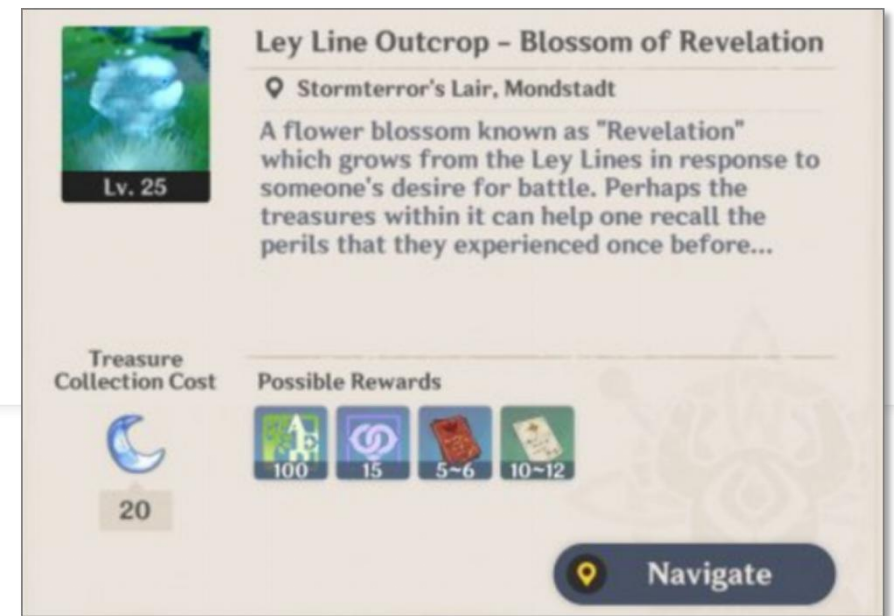
# Resin game modes

- Main story and side quests are played without limits.
- But other game modes that are found by exploring the world consume a resource called **Original Resin**
  - Like an Energy system, but it's to *redeem rewards*, not to play.
  - Can be bought with hard currency.
  - Has a *limit cap*. Players should spend Resin at some point otherwise the "waste" it.
- These modes can be played together in **co-op**.
- These modes are:
  1. **Ley Line Outcrops**
  2. **World Bosses**
  3. **Dungeons (Domains)**



# Ley Line Outcrops

- Spots where players can spawn a waves of enemies
  - After clearing them, redeem XP items or soft currency (Mora)
- Ley Line Blossoms are the first run-in with the Resin system.
  - Begin as soon as adventurer rank 8.
  - Blossoms of Revelation: provide character level up materials.
  - Blossoms of Wealth: provide bundles of soft currency



# World Bosses

- Boss fights that players can find in the world.
  - Rewards: materials and Artifacts.
- Each boss follows a very clear elemental type, and their rewards follow the same element.
  - Example: the Electro Hypostasis drops gems and core upgrades for Electro based characters.
- Types of bosses:
  - Normal
  - Weekly Bosses
  - Event Bosses: appear as part of a time-limited Event
- These are the most difficult challenges for their tier and will test how well put together and geared your team is.



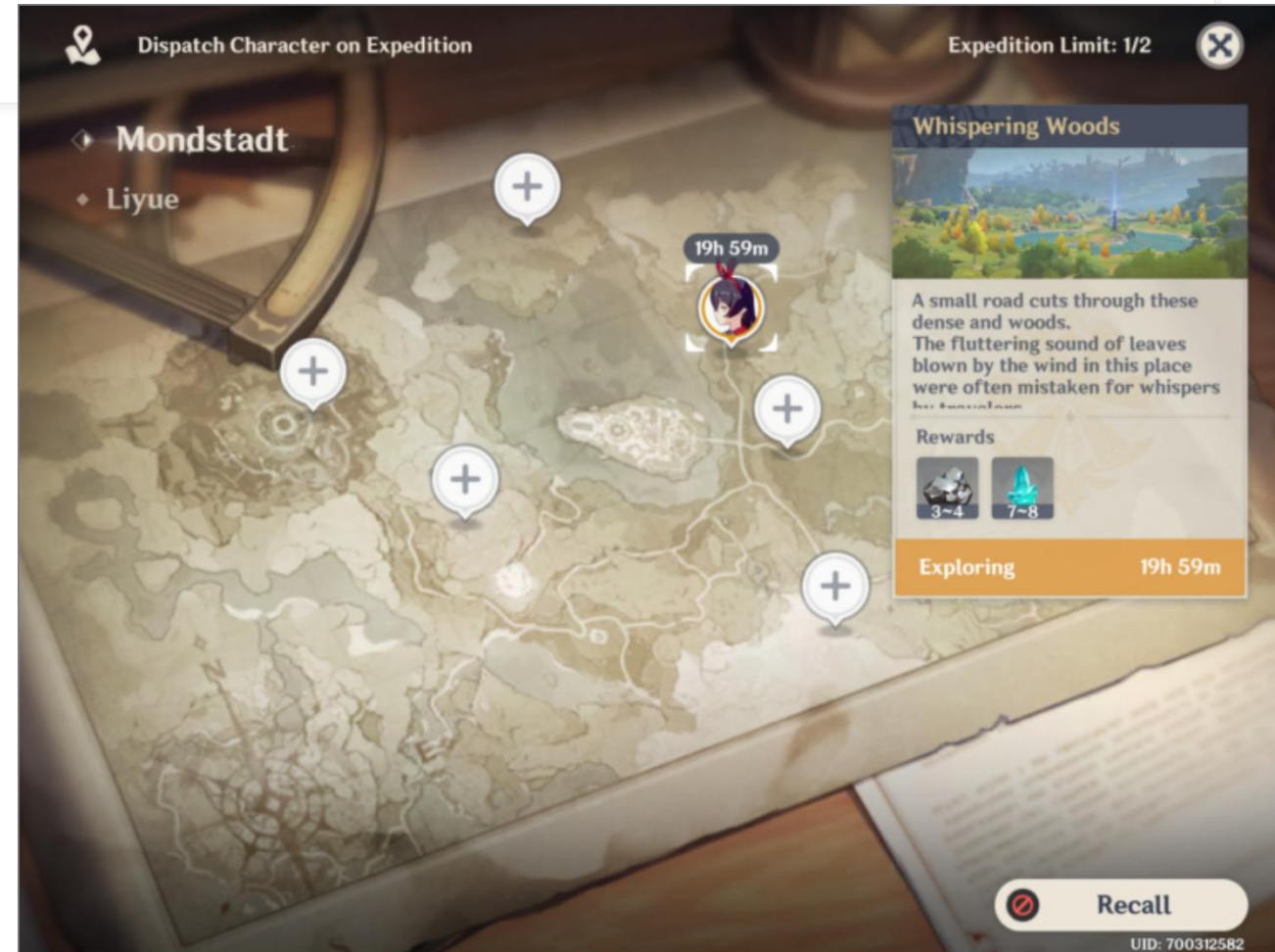
# Dungeons (Domains)

- Domains are dungeons with selectable difficulties.
  - Vary according to what kind of items they offer.
  - For example, one domain offers artifact loot and another weapon ascension material.
- Trials with time events and a certain number of enemies you need to dispatch *without being killed*.
- Design issue: Dungeons are a very linear system that conflicts with an highly non-linearly open world.
  - The end-game experience is reduced to a simple grind of locating Dungeons, using the Waypoints to quickly get there



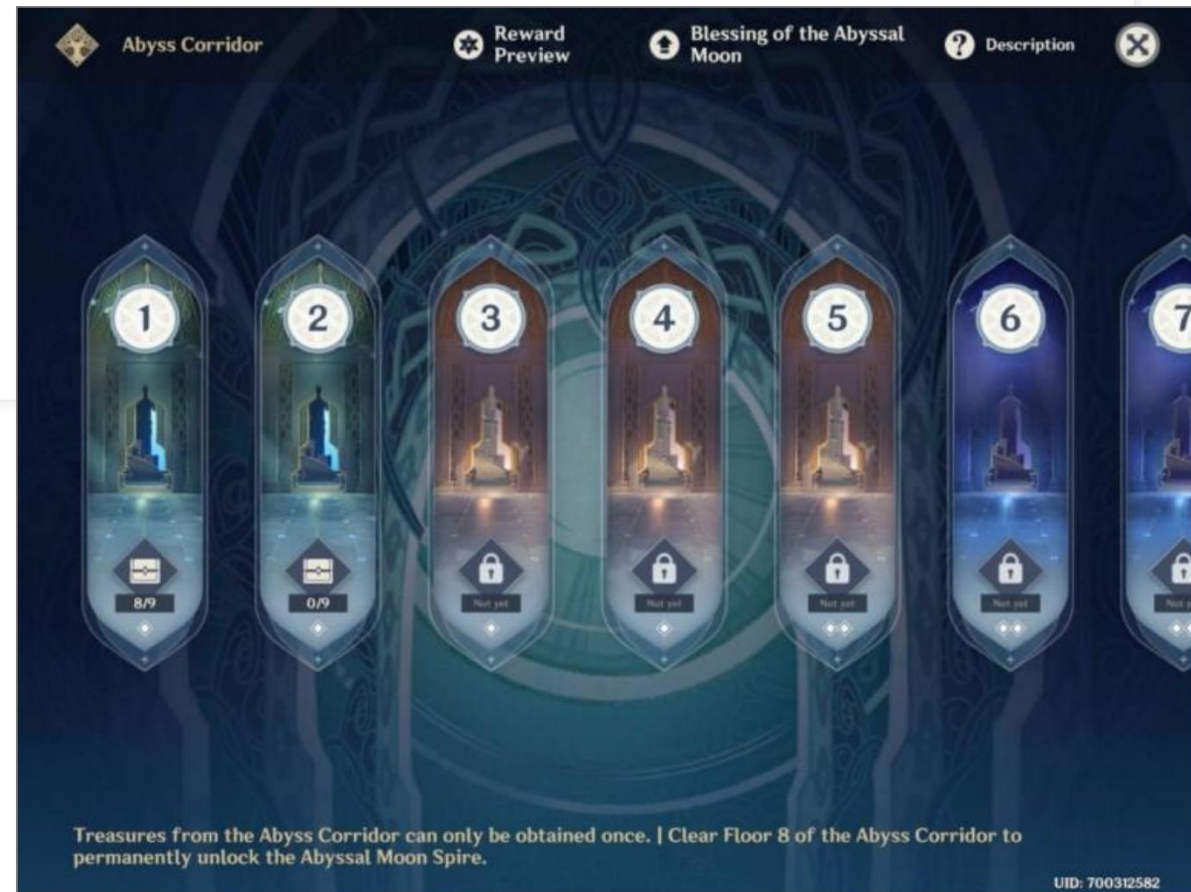
# Expeditions

- Feature that allows players to use *characters that they are not actively using*
- Sends characters on quests for a certain time period.
- This feature can be used to grind crafting materials.
- Rewards having a larger collection of upgraded characters.



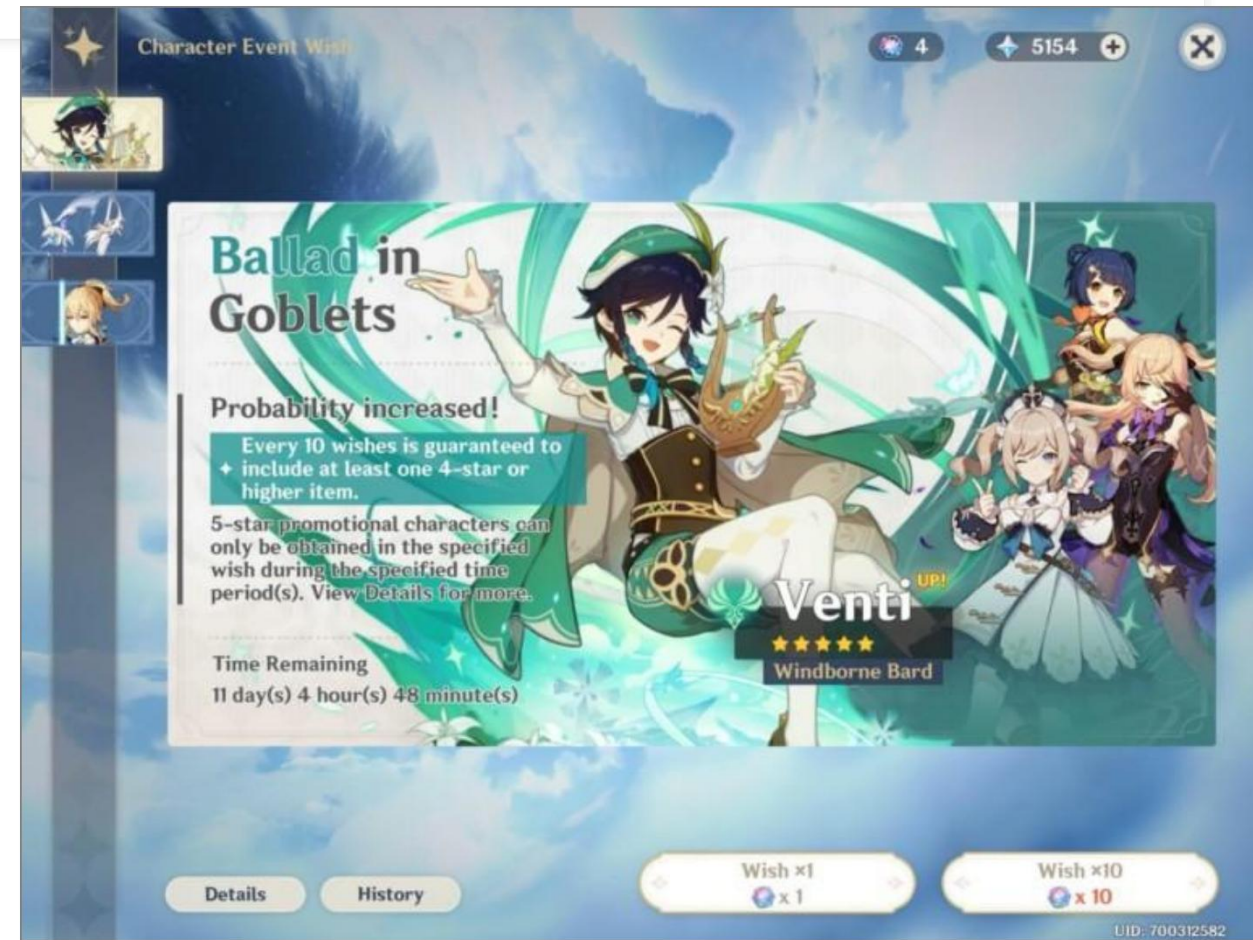
# Spiral Abyss

- End-game feature.
- A tower type dungeon to complete ever increasingly harder levels.
- Each floor has its own rules.
  - For example, pyro damage is increased by 75% in the first level.
- Rewards: premium currency, very rare Artifacts and XP items.
- Part of the abyss resets twice a month.
  - The ruleset of the levels change.
  - Varying rulesets push players to keep upgrading their character roster on a wide spectrum because you never know when you need your Cryo ranged character, for instance.



# Gachas / Loot Boxes (Wishes)

- Used to acquire **Characters and Weapons**.
  - Standard gacha: always the same, always available
  - Limited time gachas: specific items “featured” with higher probabilities of dropping.
- Two different currencies used to buy gachas:
  - One for limited-time gachas, another for standard.
  - Earned from advancing your account level, from the Battle Pass OR purchasing.





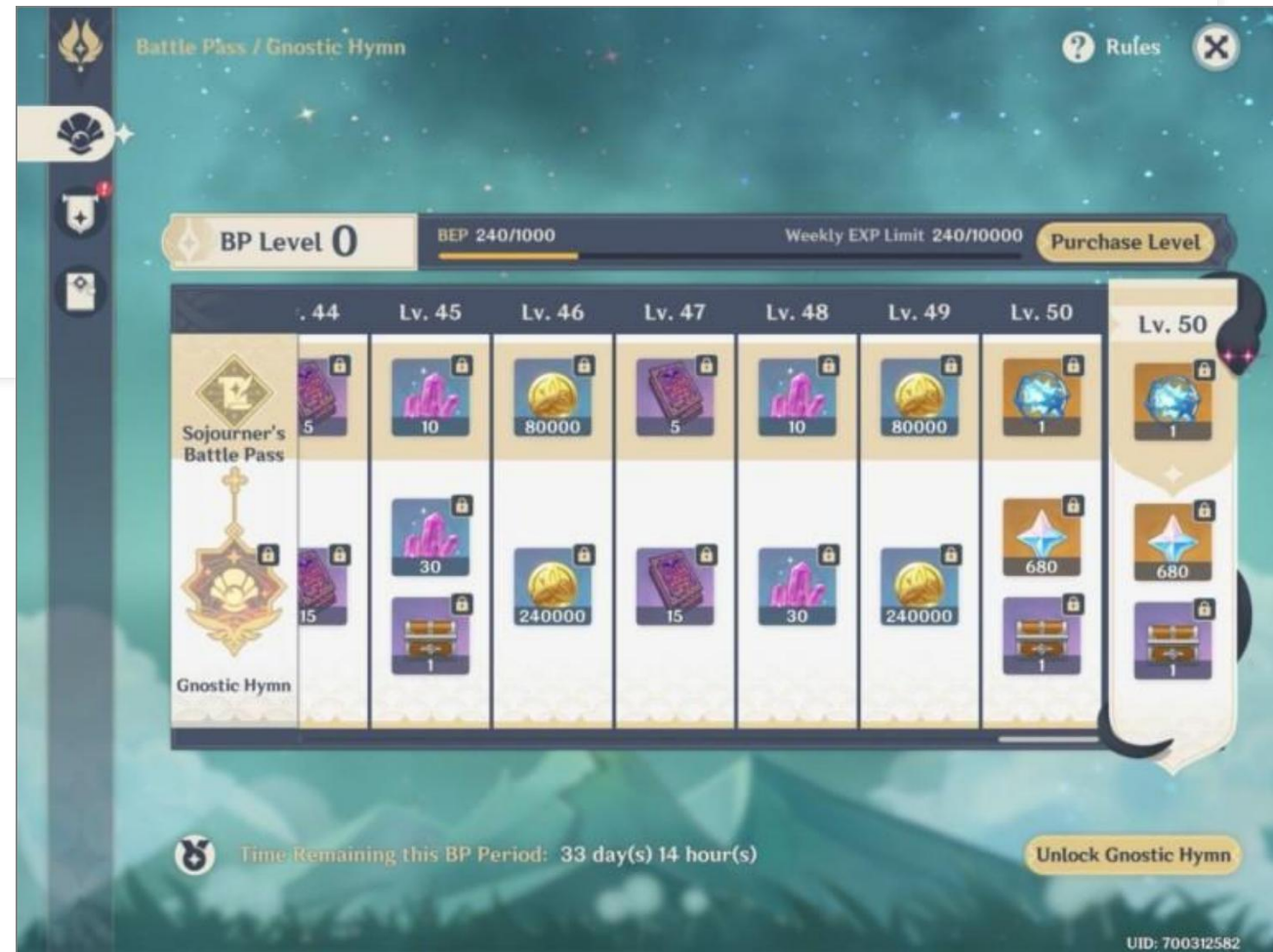
# Duplicate Sink via Shop

- Besides fusing to get XP in characters, weapons and artifacts, there's another system to sink duplicates;
- Currencies Starglitter and Stardust received when pulling high-rarity weapons or characters already owned.
- These currencies can then be used for direct purchases of specific weapons or characters in the store. (The Exchanges)



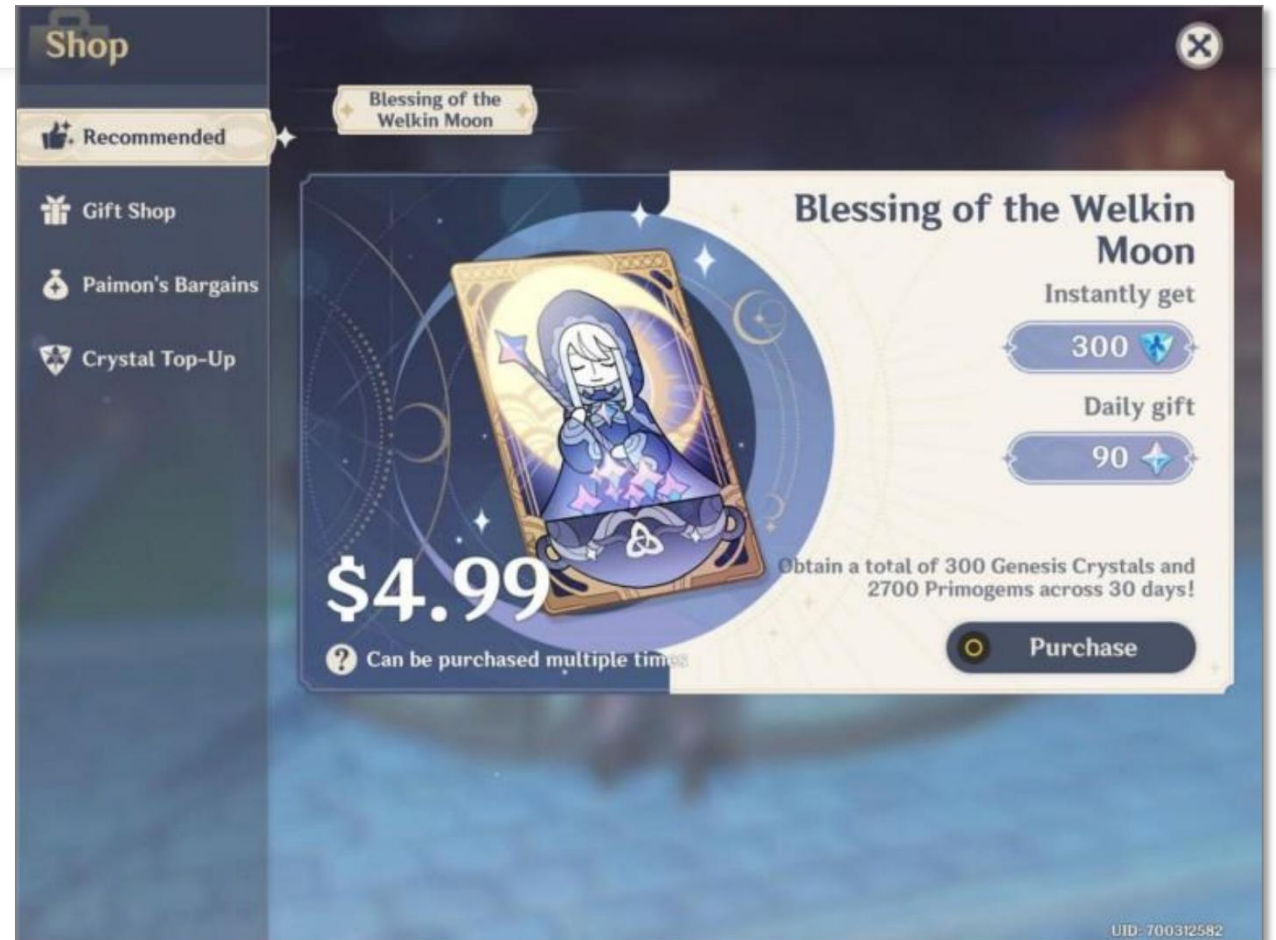
# Battle Pass

- Battle Pass system is unlocked late in the game.
  - Players need to reach account level 20, which can easily take up to 15-25 hours of gameplay.
  - This is rather unusual and unique.
- Players earn BP experience by completing daily, weekly and season-long quests.
  - Players can also buy BP levels directly if they want to progress instantly.
- Rewards include XP items for characters/weapons, gacha and **unique weapons only acquired through this Battle Pass.**



# Pseudo-Subscription

- Players can purchase a bonus of 30 days in which they get premium currency on a daily basis.





# Deeper in Design

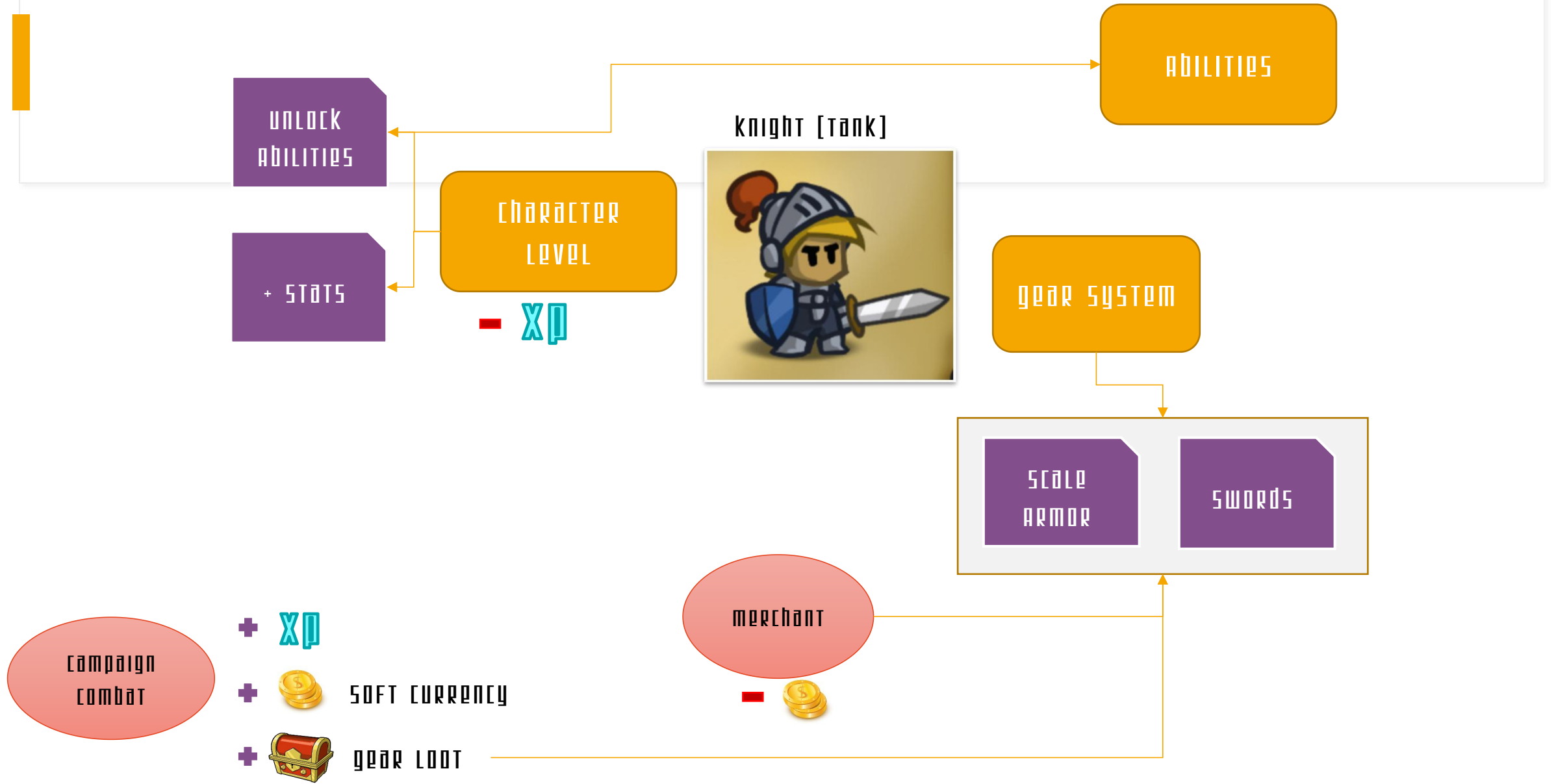
Deeper and deeper

# Battleheart vs. Galaxy of Heroes



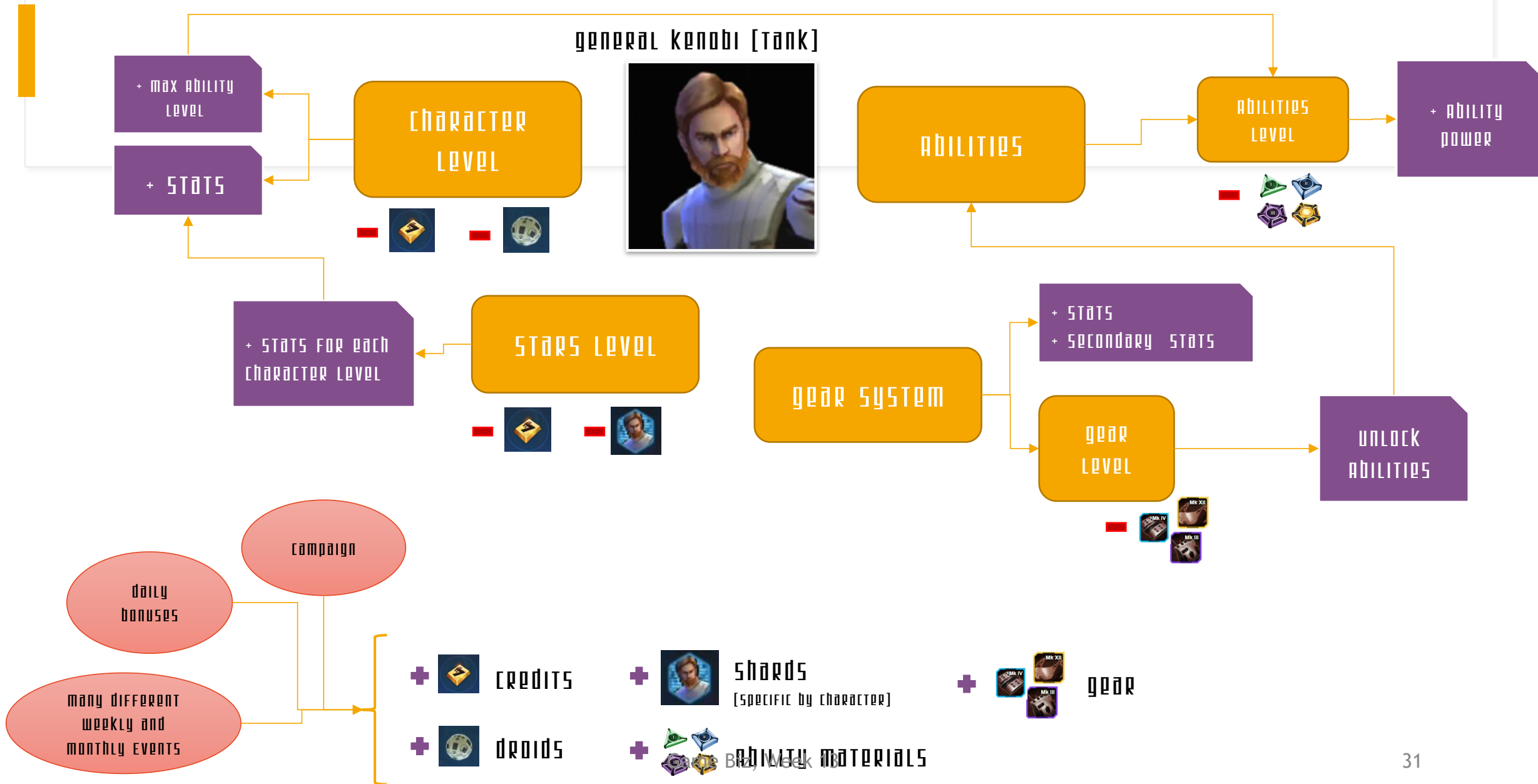
rpg games with groups of heroes using unique abilities + gear system + upgrade systems.

# Battleheart's Hero Systems



# Galaxy of Heroes' Hero Systems

general kenobi [tank]



# Depth = Elder Monetization

- Clash Royale is *brilliant* in the core gameplay:
  - Smooth and controls feel very natural.
  - Chest system creates an organic method of session control that doesn't rely on artificial limitations.
  - Growing number of cards introduce new strategies.
  - Superb polish
- But its **depth** did not create a sustainable product over the years.
  - Relatively *shallow* Card Level System that has knee-capped it's elder game monetization
  - Revenue slide over the last 1-2 years.
  - Once spenders max out the cards that they want to use, it becomes very hard to expand the metasytem to sustain spend.
- Go deeper: instead of 10-12 Card Levels, why not 25 or 50 with a smoother cost curve?



Level	Common		Rare	
	Card amount	Cost of upgrade	Card amount	Cost of upgrade
1	1	0	1	0
2	2	5	2	50
3	4	20	4	150
4	10	50	10	400
5	20	150	20	1000
6	50	400	50	2000
7	100	1000	100	4000
8	200	2000	200	8000
9	400	4000	500	20000
10	800	8000	1000	50000
11	2000	20000		
12	5000	50000		



# Depth example: AFK Arena




- Metasystems that make Heroes more powerful *situationally*:
  - Elemental system .
  - Combat profile: tank, DPS, support (heal / buff).
  - Special abilities.
  - Gameplay modes offer various types of stat checks.
  - Players have to optimize a wide variety of Party combinations to succeed.
- Late-game visual guide:  
<https://i.redd.it/3g29blpfcvw41.png>

## Team Comps


Keep one damage dealer 20-40 levels higher than the rest of your team. This is called a carry. Before level 100 use Wukong After level 100, use Miraal or Saveas

### Carries




You also want one tank. Prioritize leveling your tank after your carry. Use Hogan early on. Brutus becomes good after level 141.

### Tanks



Finally you want to fill the other 3 spots in your team with supports, prioritize leveling supports last.

### Supports



Best support, healer and energy battery  
Works well with ultimate reliant carries  
Removes strongest enemy for 4v5  
Hastes your team so you attack/use skills faster  
Removes strongest enemy and ult puts all enemies to sleep  
Roots enemies so that they cannot attack or use skills

# Depth example: AFK Arena

- There are several levels of rarity to upgrade Heroes.
  - Fuse other Heroes to level-up.
  - Once fully leveled, form receipts to ascend to a higher rarity.
- Max level and amount of upgrades is dictated by the *tier* of a Hero.
  - Common tier heroes can be leveled up to level 100.
  - **Legendary** tier start at *Rare* rarity and can be leveled up to level 160.
  - **Ascended** tier start at *Epic* rarity and can be leveled up to level 240.
- Receipts of specific heroes are needed to further evolve.

## Ascending Heroes in AFK Arena



A **Rare** character combined with two **Rare** copies of the same character will result in a **Rare+** copy



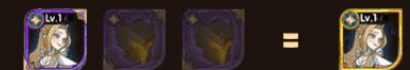
A **Rare+** character combined with any other two **Rare+** characters of the same faction will result in a **Elite** copy of the first one



An **Epic** character combined with another **Epic** copy of the same character will result in a **Epic+** copy



An **Epic+** character combined with any other two **Epic+** characters of the same faction will result in a **Legendary** copy of the first one



A **Legendary** character combined with an **Epic+** copy of the same character will result in a **Legendary+** copy



A **Legendary+** character combined with any other **Legendary+** character of the same faction will result in a **Mythic** copy of the first one



A **Mythic** character combined any other **Legendary+** character of the same faction will result in a **Mythic+** copy



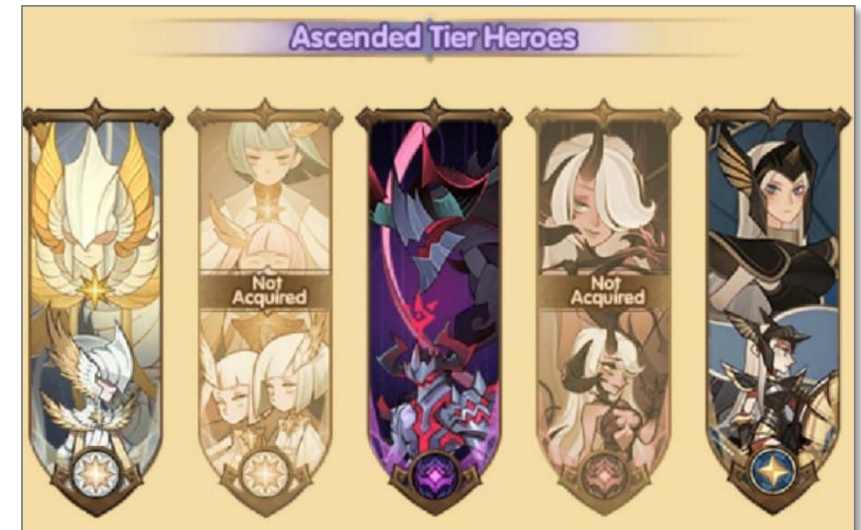
A **Mythic+** character combined with two **Epic+** copies of the same character will result in an **Ascended** copy



# Depth example: AFK Arena Ascension

- Exponential depth across these steps means players are always in need for more Heroes as leveling fodder or receipt.
  - <https://i.redd.it/amirgcov67d41.png>
- Semi-evergreen system with max Level of fully Ascended Heroes based on the total number of other Ascended Heroes.
  - If you have 3 Ascended Heroes, max Level of each is  $240 + (5 \cdot 3) = 255$ .
  - Right now there are **77** Ascended Heroes.
  - The Max Level possible for each Hero is  $240 + (5 \cdot 77) = 625$ .
  - Every new Ascended Hero introduced in updates further extend the cap.
- The game is not at risk of running out of content for spenders!
  - Introducing new Heroes increase the cap for all of them, raising the bar of Events and PvP modes immediately.

Rarity	Number of <b>Rare</b> heroes needed
Rare+	3
Elite	9
Elite+	18
Legendary	54
Legendary+	72



### Quick Maths

Each 10x summon costs 2700 diamonds

Chances of common, rare and elite are 51.69%, 43.70% and 4.61% respectively

Every 100 summons give you an elite reward

As such, every 2700 diamonds nets you on average

$$((100 * 0.5169 / 112.5 + 100 * 0.4370 / 9 + 100 * 0.0461) + 1) / 10$$

$$= (0.4595 + 4.855 + 4.61) / 10$$

$$= 1.0925 \text{ elites}$$

According to the diagram, an ascended hero requires 28 elites  
an ascended 5 star hero requires 38 elites

Ascension Tier	Elites Required	Number of 10x Summons	Diamond Value	Dollar Value
Ascended	28	25.63	69199	\$533.89
Ascended +++++	38	34.78	93913	\$724.57

### Flowchart Legend

E = Elite

E+ = Elite+

L = Legendary

L+ = Legendary+

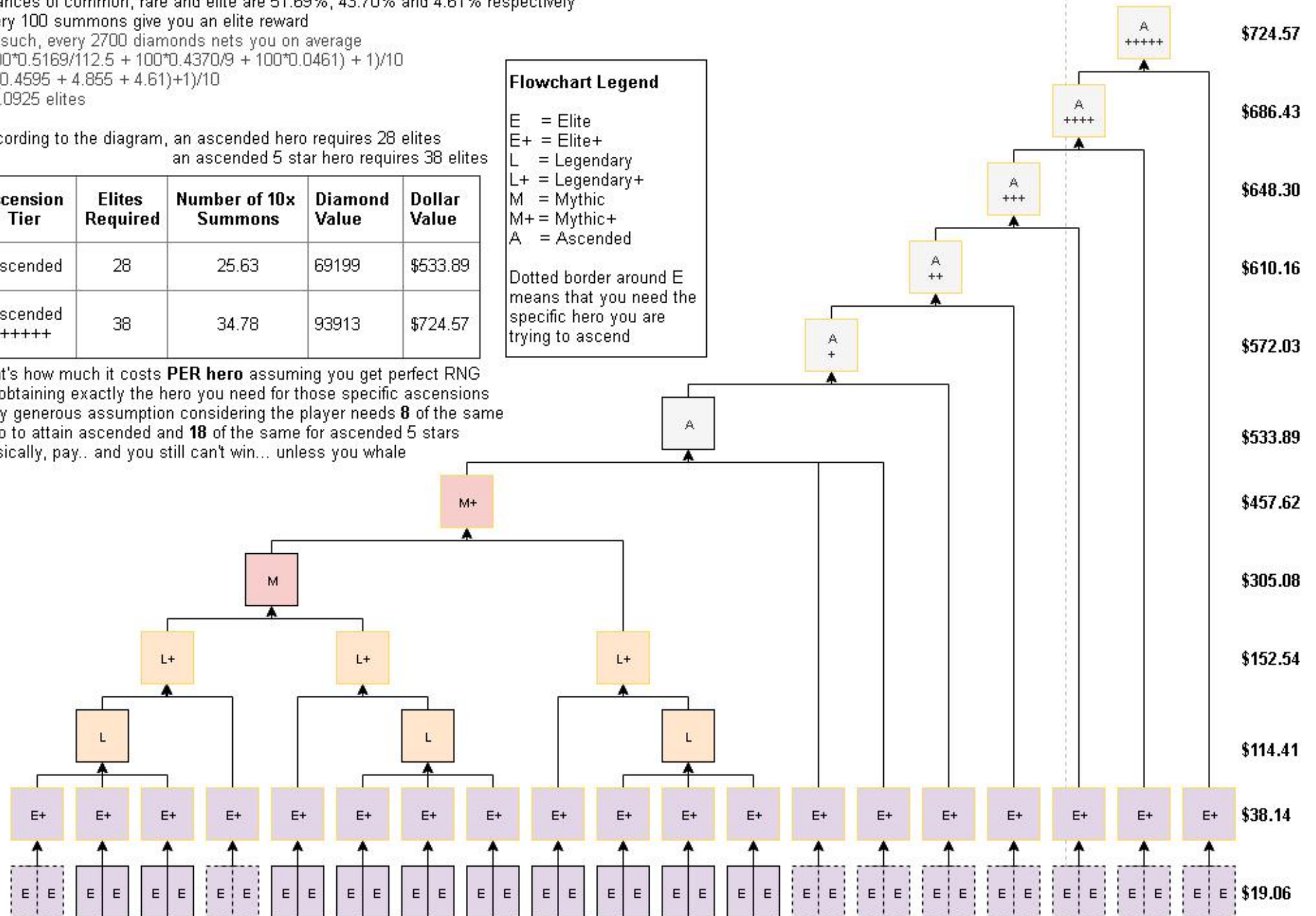
M = Mythic

M+ = Mythic+

A = Ascended

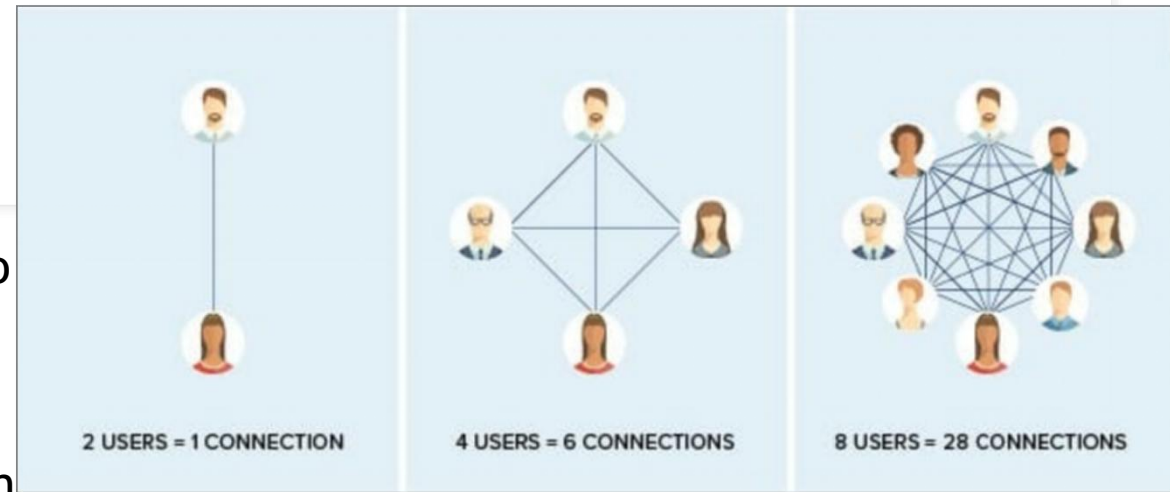
Dotted border around E means that you need the specific hero you are trying to ascend

That's how much it costs **PER hero** assuming you get perfect RNG on obtaining exactly the hero you need for those specific ascensions  
Very generous assumption considering the player needs **8** of the same hero to attain ascended and **18** of the same for ascended 5 stars  
Basically, pay.. and you still can't win... unless you whale

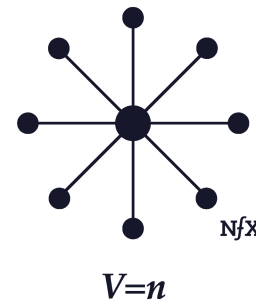


# Network Effects

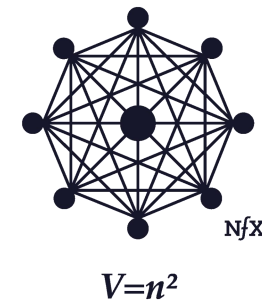
- Each additional user of a good or service adds value to others more than linearly.
- *Sarnoff's Law*: the value of a **broadcast** network increase in direct proportion to the number of users ( $n$ ).
  - Parallel: single-player games.
- *Metcalfe's Law*: the effect of a **connected** network is proportional to the square of connected **users** ( $n^2$ ).
  - Parallel: multi-player games.
- *Reed's Law*: "group-forming networks" that allow for the formation of **clusters** scale value even faster. ( $2^n$ ).
  - Parallel: multi-player games with guilds.



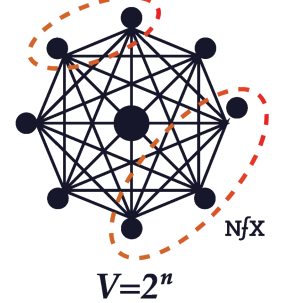
Sarnoff's Law



Metcalfe's Law

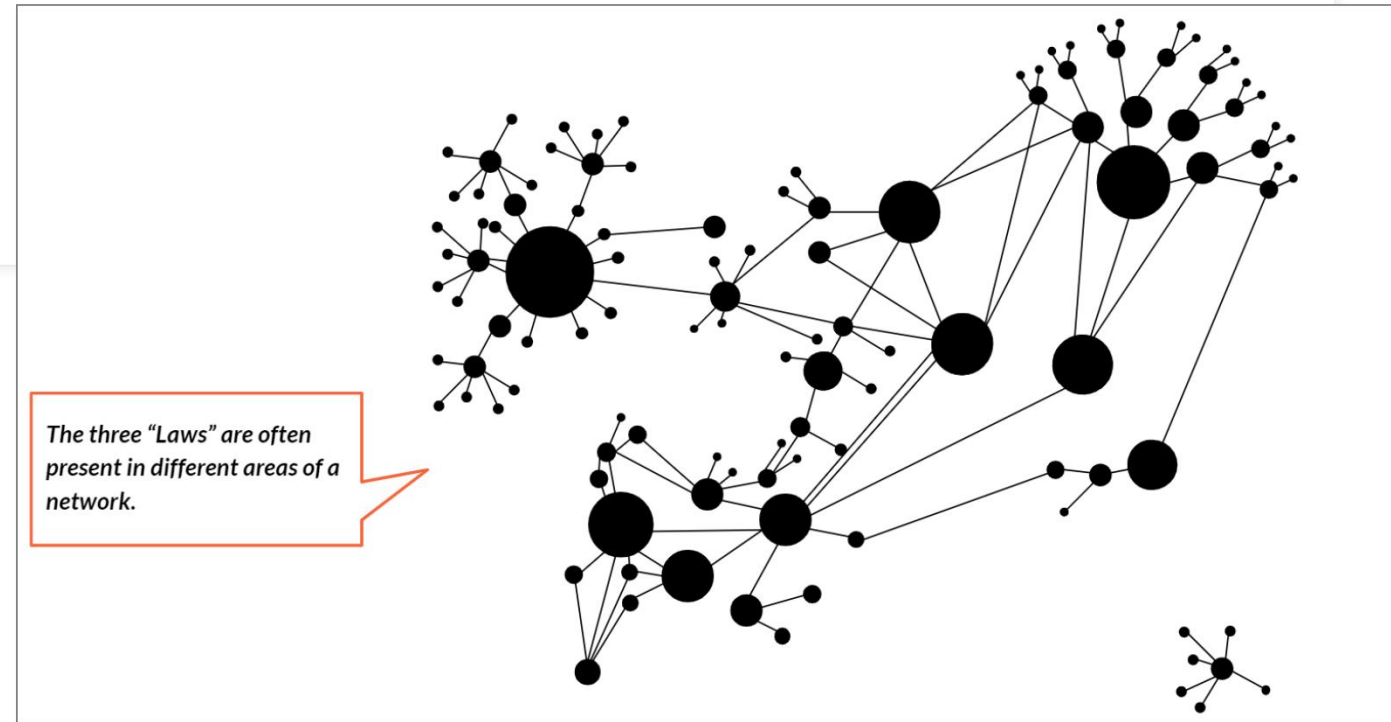


Reed's Law



# Network Effects

- These “Laws” are great at helping us picture how the different types of networks create value.
- In reality, networks are much messier, asymmetric and chaotic.
  - It is hard to find networks that have such perfect forms
  - Laws should not be taken as immutable frames but more as ways to identify how in a certain part of the network is behaving
  - Very often more than one “law” is present in a network.



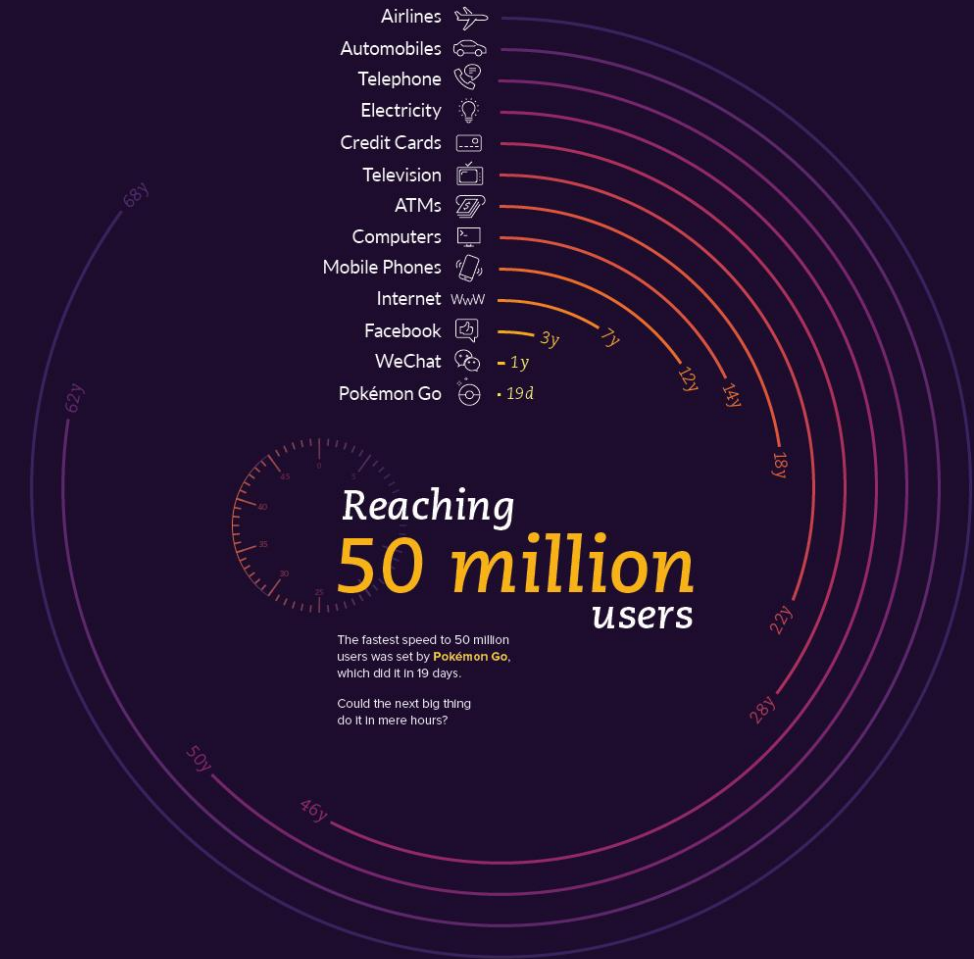
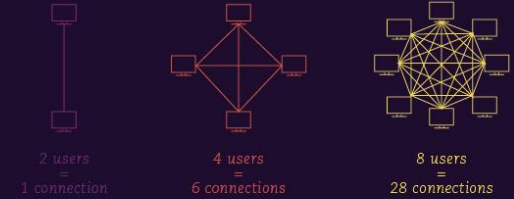
# Network Effects

- New digital goods or services can harness network effects to gain users at unprecedented rates.
- Social media, apps, and the internet were able to take quicker and quicker due to increased connectivity.
- The augmented reality game Pokémon Go was able to reach 50 million users in just 19 days.
- The next big thing could hit that milestone even faster than Pokémon Go.
- Instead of almost three weeks, it might do so in a few days - or even a few hours.

## HOW LONG DOES IT TAKE TO HIT 50 MILLION USERS?

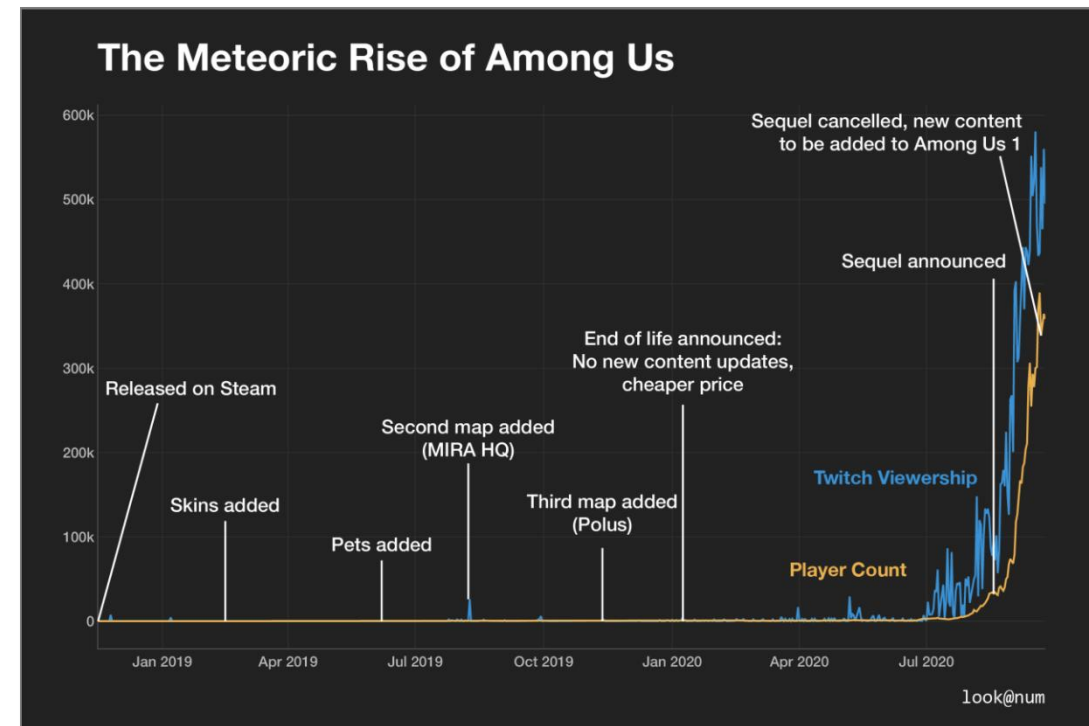
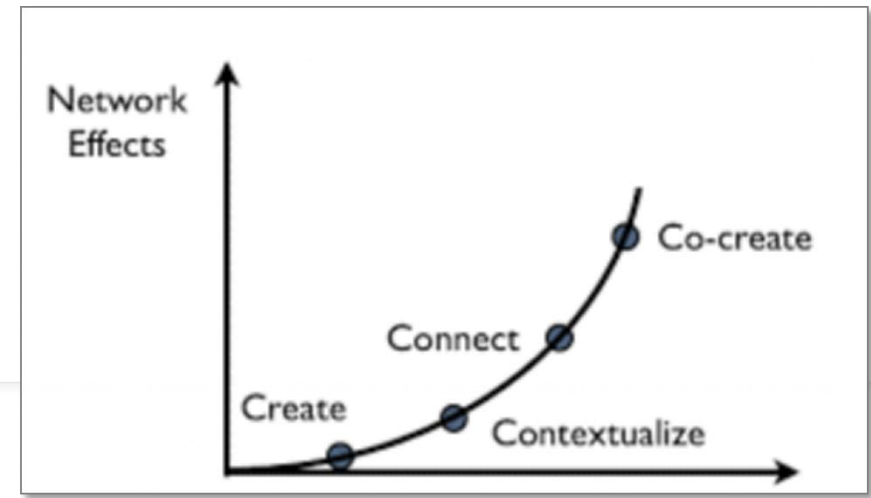
The impact of the shift to digital, and the power of network effects

In the digital age, companies can attract millions of users at an unprecedented rate. This is possible through **network effects**, instantaneous communication, and the nature of digital goods themselves.



# Speed of Networks

- **Speed** of a network = **virality**.
  - Networks become more valuable as more people use it
  - Viral growth may produce a cost-benefit through economies of scale but *not necessarily* making the product or service more valuable in the long run.
- The speed in which a network grows is *exponential*:
  - A network starts off with a small number of users. This can take a long time.
  - More users in the chain attains a stage of *critical mass*.
  - The speed of this network effect then *increases exponentially with co-creation*, where users automatically subscribe for the additional value that they are getting.

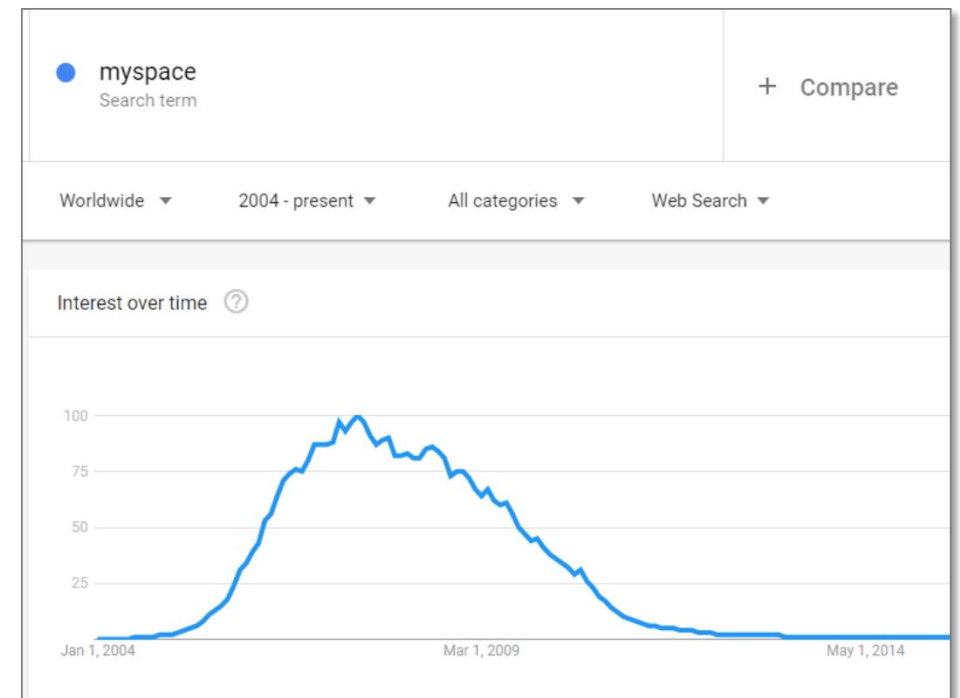


• Perfect example in 2020: **Among Us**



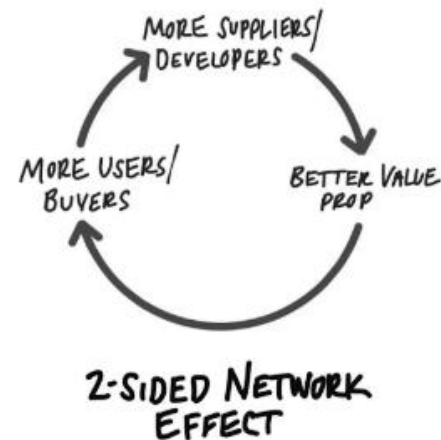
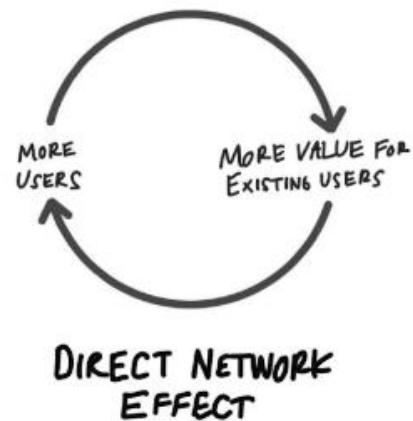
# Speed of Networks

- Negative network effects: a network can also *collapse* fast.
  - One user leaving nudges N other connected users to consider leaving.
- Designers need to be *very mindful* when focusing on social and multiplayer features
  - Communication with players
  - Constant updates (even if small content, but address systemic problems)
  - Data analysis + community feedback
  - React to meta
  - Learn *common reinforcement mechanisms for any network*.



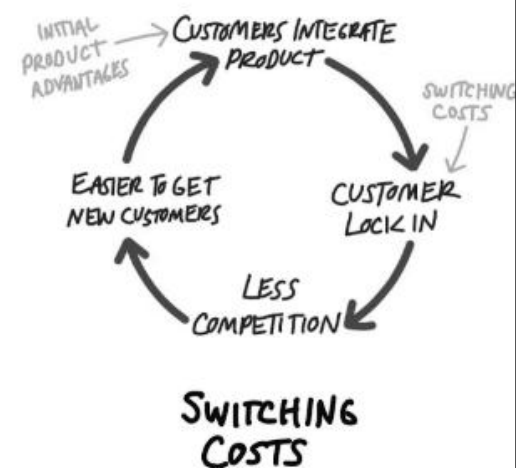
## Proper NFX

virtual cycle:  
generating more value as more entities participate in the network



## Reinforcing Mechanisms for NFX

Other side effects that drive more defensibility



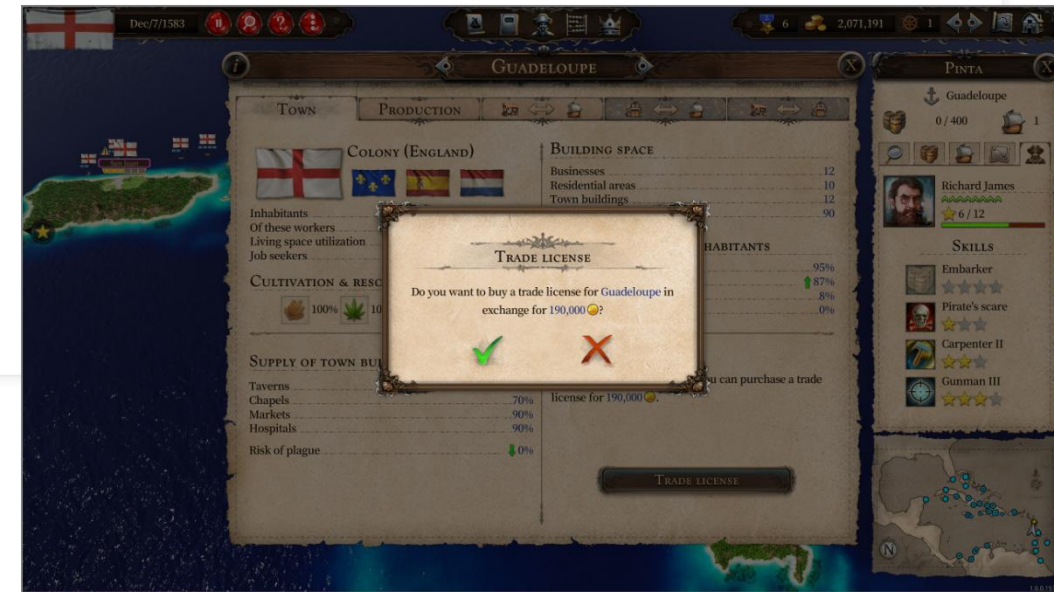
# Trading (Barter)

- Adding Trade needs *careful design consideration*:
  - Easy source of inflation and exploits
  - But also great connector of player community and loyal fans!
  - Your entire end-game may end up relying on trading, which affects *the way you balance*.
  - Huge impact of work-hours around UI/UX, server and security.
- Trading mechanics usually serve as a **negative-feedback loop**, especially within a closed economy.
  - Players are more willing to offer favorable trades to those who are behind.
  - Expect a better deal from someone who is ahead.



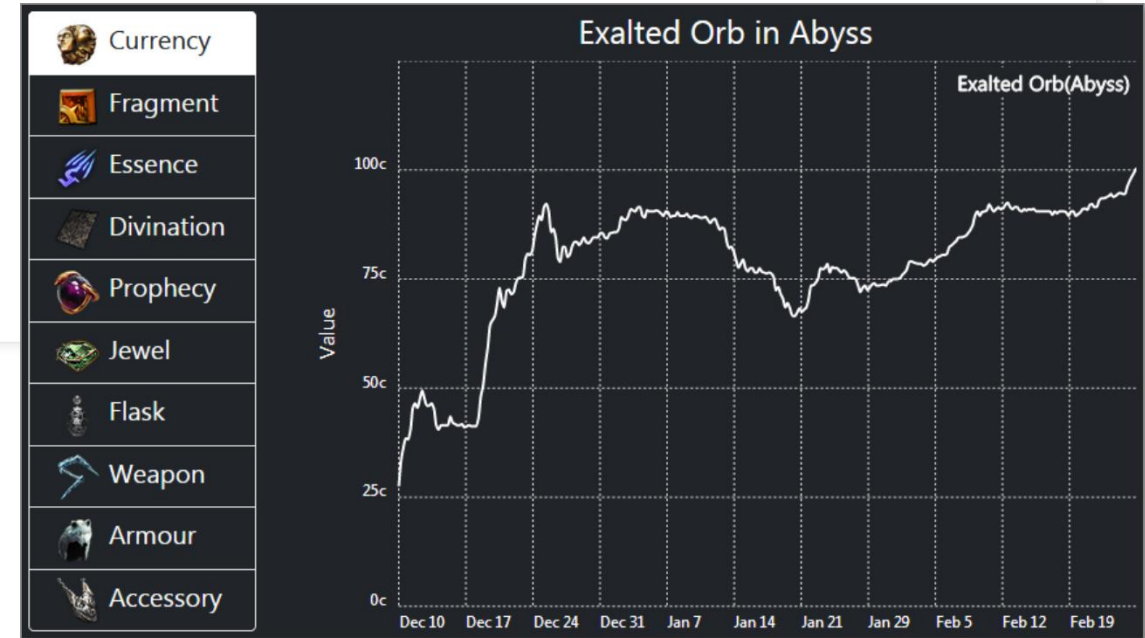
# Trading Mechanics

- Tradable resources should be balanced as if progression depends on trading.
  - Trading or resources = trading of time playing
  - Cumulative effect on long-term progression of each player.
  - Risks churn part of players: not engaging in trading might set them back, slower progression.
- Systems can isolate or restrict trading, such as:
  - Only inside a Guild
  - Only certain fixed amounts
  - Amount of times per day
  - Level lock
  - Asset lock (buildings, trading licenses)
  - Only at the Town.



# Trading Dynamics

- Only specific resources
  - Every resource that is tradeable might **inflate**.
  - Some resources may be created and balanced only for trading.
  - **Never trade hard currency.**
- Value of resources in the community will oscillate *out of your control*, but you need mechanisms to keep those values in mind when balancing updates.
- If trading events in the game are infrequent, expect trading phases to take longer, as players have had more time to amass tradable resources so they will probably have a lot of deals to make.
- Does the game require all trades to be even or are uneven trades allowed?
  - The more uneven allowed, the more less-informed players are abused.
  - Requiring even trades places restrictions and will reduce the number of trades made.



# End-game PvP-based Revenue

- It's a well-known fact that, in general, a minority of players like to PvP.
  - Yet on many 4x games and other genres, PvPing is the main avenue for a player to spend in the end game.
- Devs should consider end-game systems where non-combatants can thrive:
  - Compelling end-game PvE and Events
  - Resource farming and distribution
  - Guilds: defense, research
  - Crafting, trading
- *Guild wars*: systems where guilds need to do other stuff than fighting - gather, craft, research, train troops.



# Collections Everywhere

- *Simple systems* that carry many benefits.
  - Deep itemization.
  - Easily expandable by devs.
  - Extra goals for players.
- Itemization allows devs to give out Collection items as loot
  - Quest rewards
  - Great accompaniments to time-limited Events.
- Devs can also sell Collection items in the store and in bundle packs.



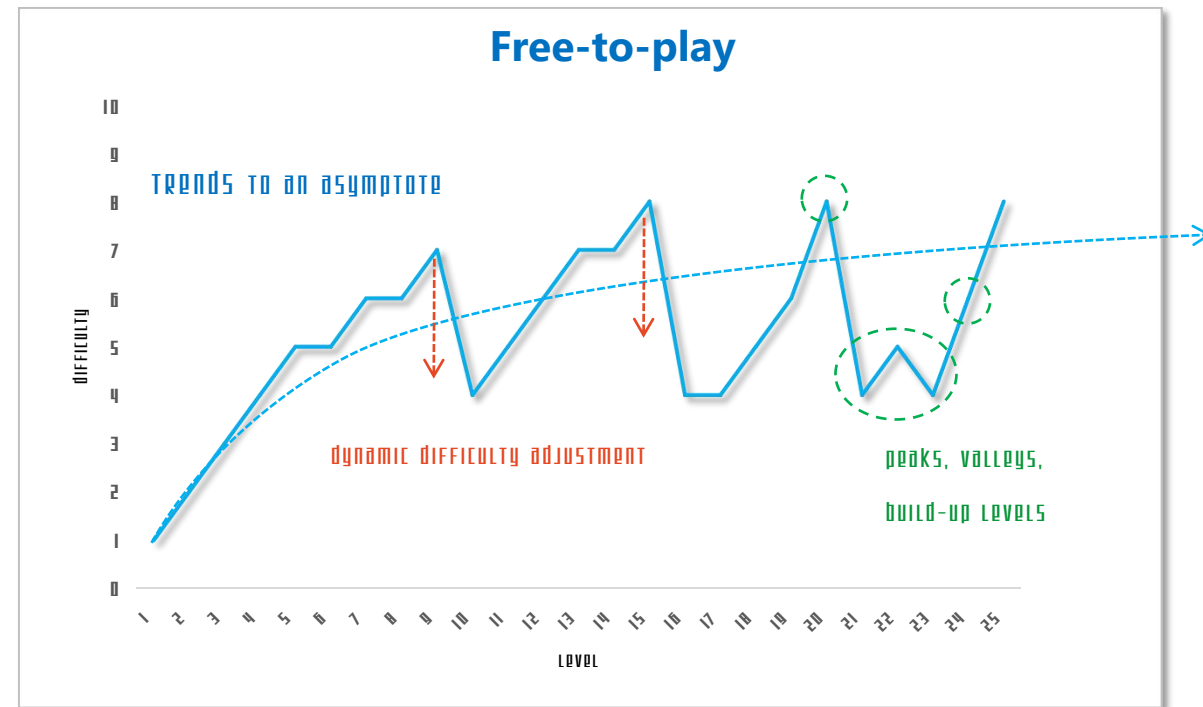
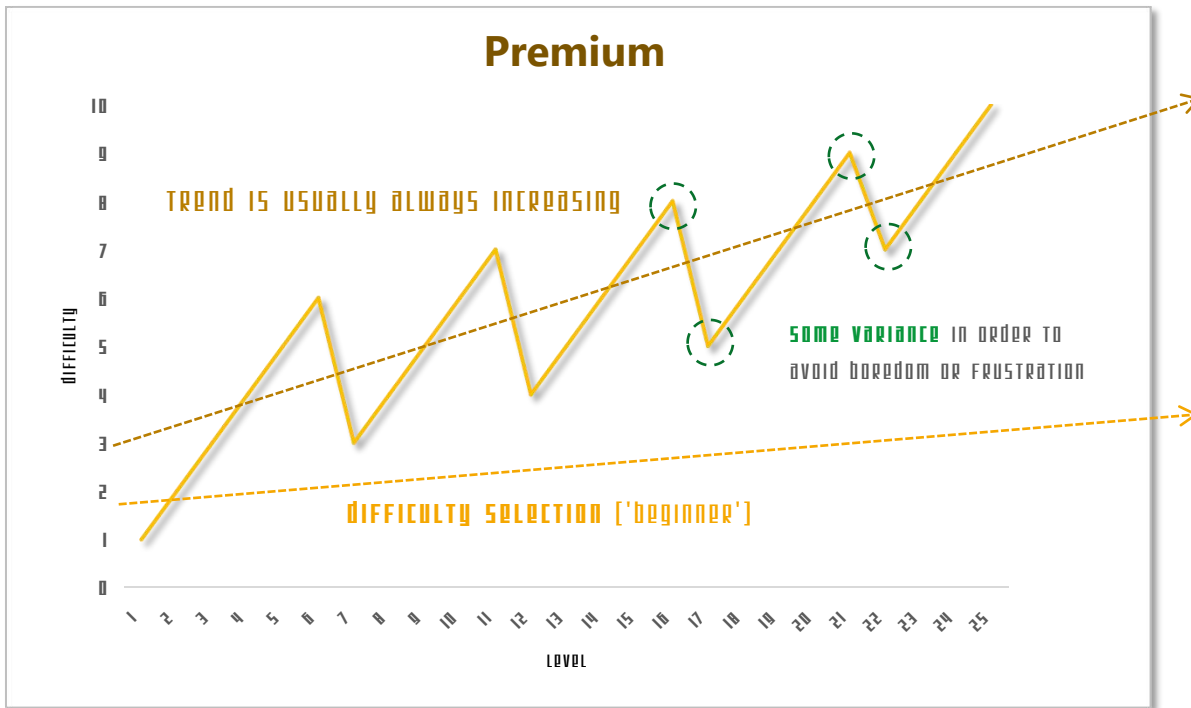
# System Deprecation

- Because Live Ops games can survive for several years, it can become difficult for devs to continue to add onto a system without inflation
- **Summoners War:** for years an Awakening System gave players something to grind for.
  - After several years, players have already awakened most of their Monsters
  - Using Materials for a Second Awakening would be too cheap for players who have tons of Materials already.
- **Second Awakening:** requires the player to use the Monster in special stages to earn Awakened XP for that Monster.
  - Requires a new form of energy: **Dimensional Energy**.
  - This energy recovers very slowly, and only 30 can be purchased each week for 375 Gems.
  - More time grinding Awakened XP without having the system compromised by *past time* used to grind Materials in the past.



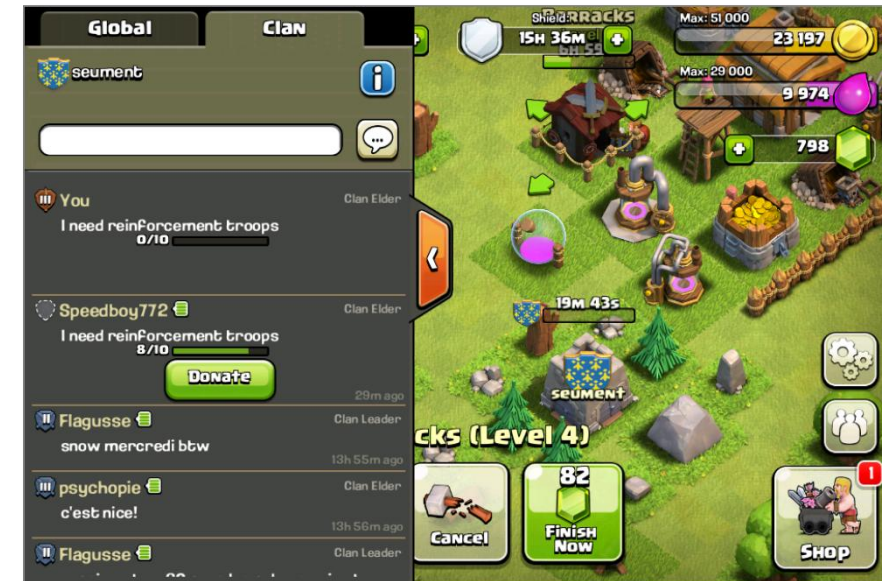
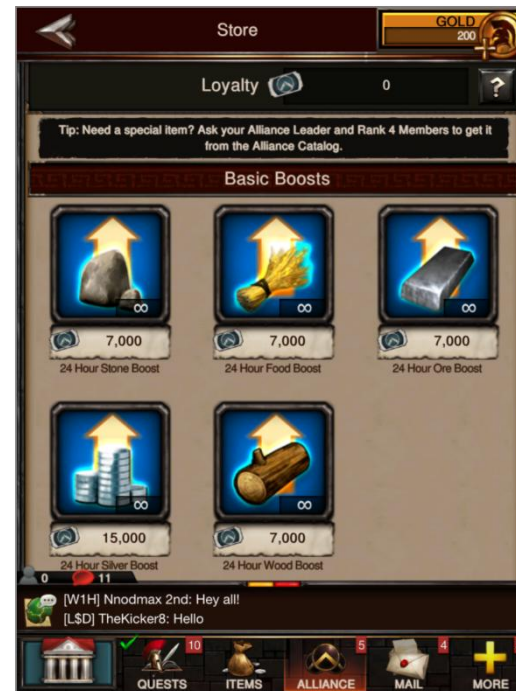


# Difficulty Balancing



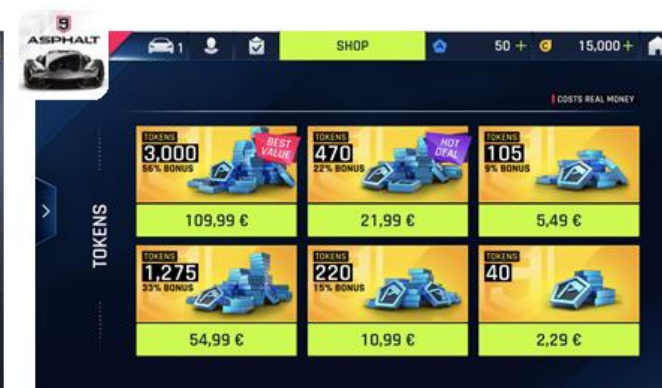
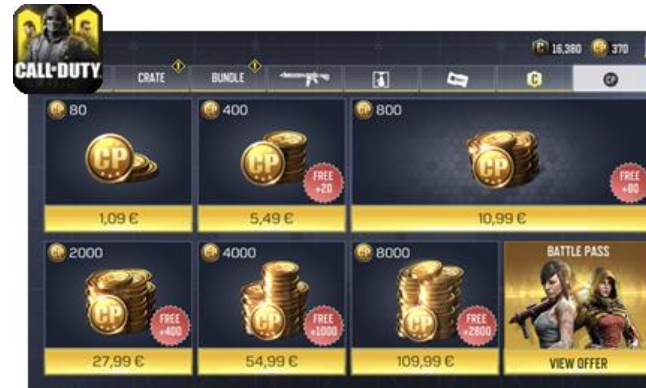
# Social Purchases

- Direct purchases: when the player purchases an IAP, guildmates or friends receive an extra gift.
- Indirect resource pressure via Guild mechanics:
  - Players can donate their resources into a Clan pool.
  - Clan Leader can purchase boosts for the Clan using donated resources.
- Or more direct: request and Donate resources with other Clan members.

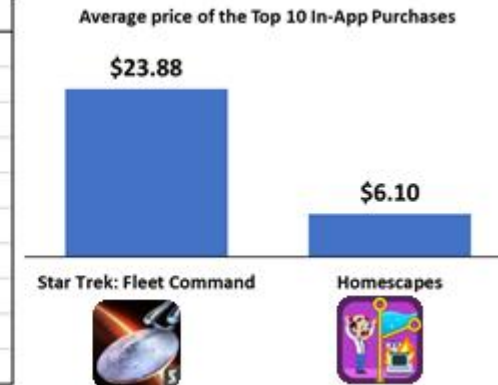


# In-app Purchases Design

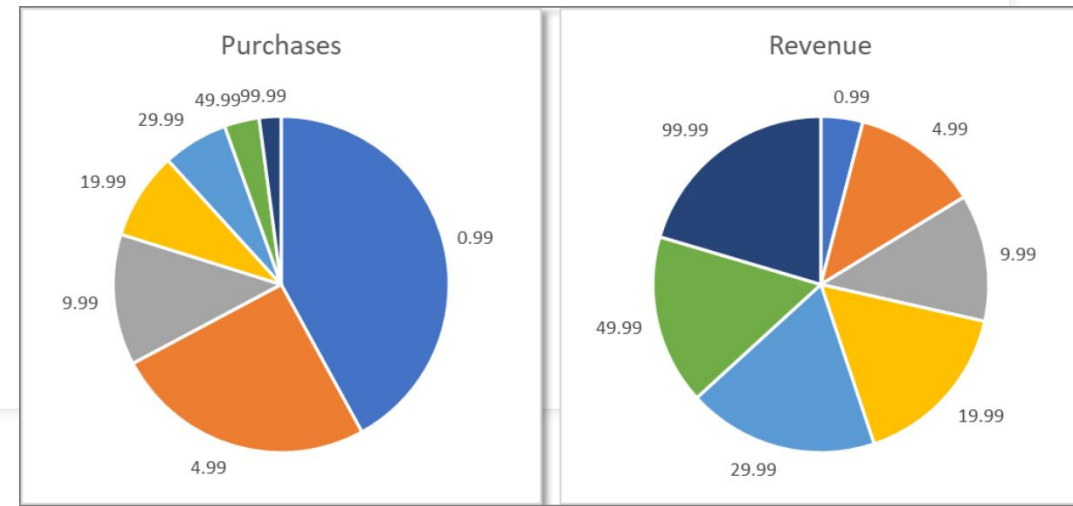
- Who does IAPs? The most engaged players
  - Since they are the most interested about the game, they'll become more and more proficient at identifying good and bad deals.
  - Big spenders use System 2.** First purchases can be triggered by System 1 and impulse, but the more a user play, the more she choose courses of action that grants them the most value for their money.
- Order packs by whatever better converts *depending on your audience.*
  - Test different layouts over time.
  - COD Mobile** aims at cheaper tiers and features the Battle Pass. Younger audience?
  - Asphalt 9** aims at larger purchasing habits. Bundle packs with good cars cost lots of hard currency anyway?
- Game genres have different paying user profiles
  - Casual games vs 4X
  - Regardless of the game itself.



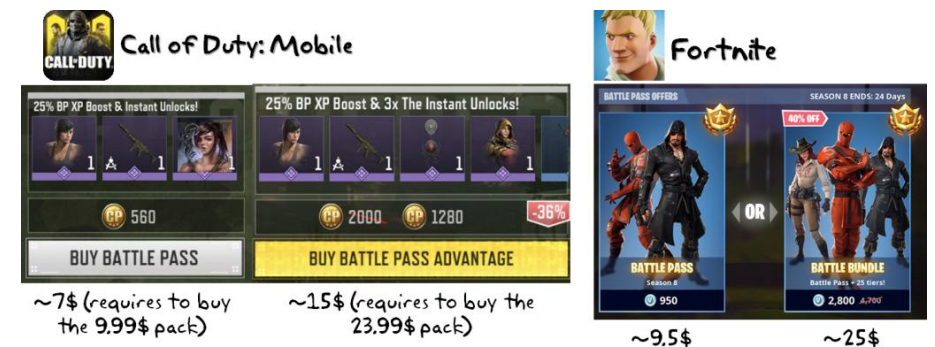
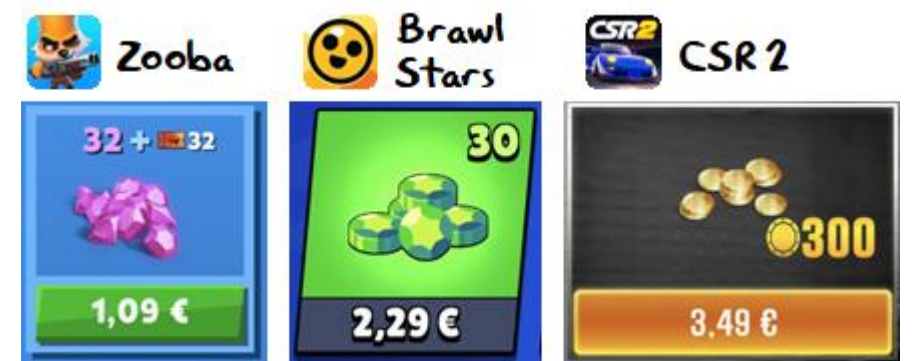
Top 10 In-App Purchases			
Star Trek: Fleet Command		Homescapes	
Peace Shield Pack	\$4.99	Handful of Coins	\$0.99
Alannah Super Booster Pack	\$19.99	Starter Pack	\$1.99
Caerulum Super Booster Pack	\$19.99	Apprentice Pack	\$6.99
Special Offer	\$19.99	Handful of Coins	\$4.99
Benif Mega Booster Pack	\$19.99	Gold Reserve	\$2.99
Alpha Horunia Enhancement Pack	\$4.99	Purse of Coins	\$4.99
Special Offer	\$4.99	Pro Pack	\$15.99
Die'greffo Super Booster Pack	\$19.99	Gold Reserve	\$5.99
Kauko Booster Pack	\$99.99	Handful of Coins	\$9.99



# In-app Purchases Tiers



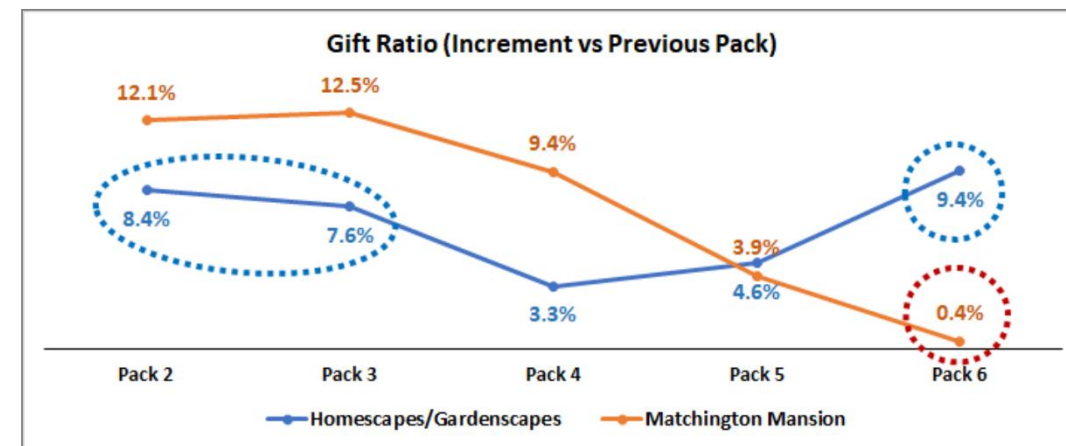
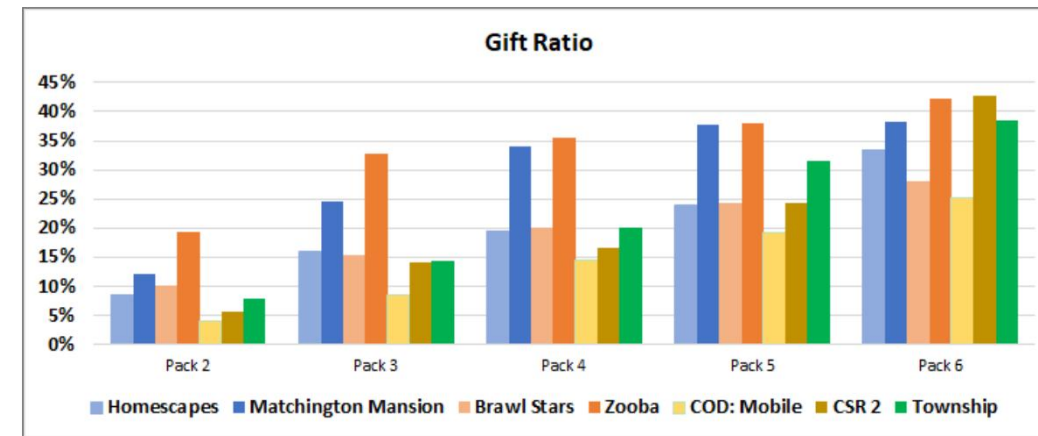
- **Lower packs: 4.99 or less, sets the minimum investment.**
  - Most sold but low revenue.
  - First time converters: using this tier in one-time purchases allow more value without harming longer term monetization.
  - Minimum price ranges between 0.99\$ to 2.99\$ - depends on your price-elasticity, test them!
- **Middle packs: 9.99 to 29.99, targets players willing to go a longer distance with the game.**
  - Not successful as a first-conversion - but effective as a *reconversion point*, since it can deliver great value and still be purchased regularly without being too taxing.
  - \$10 also resonate with younger audiences
- **Large packs: 49.99+, top monetizers in strategy and simulation.**
  - Always calculated to be the most effective way to spend money on resources.
  - Guarantees players remain in the game until all these resources are used, since churning from the game would mean that the player would lose that investment.



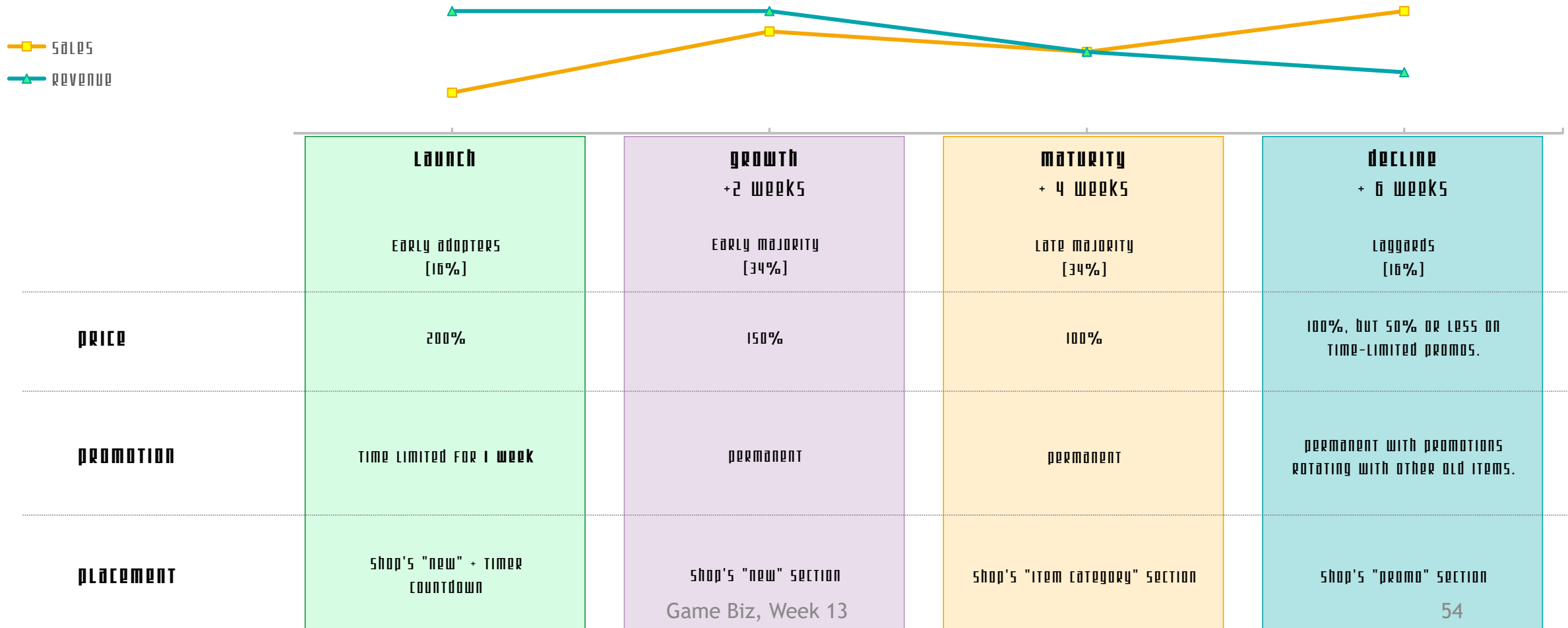
# In-app Purchases Gift Ratio

	Price per 1 Hard Currency		
	Cheapest Pack	Most Expensive Pack	Discount
<i>Brawl Stars</i>	0.076 €	0.055 €	39%
<i>Zooba</i>	0.034 €	0.020 €	73%
<i>COD: Mobile</i>	0.014 €	0.010 €	34%
<i>CSR2</i>	0.012 €	0.007 €	75%
<i>Township</i>	0.046 €	0.028 €	63%
<i>Asphalt 8</i>	0.057 €	0.036 €	58%
<i>Real Racing 3</i>	0.143 €	0.108 €	33%
<i>Homescapes</i>	0.0011 €	0.0007 €	50%
<i>Match. Mans.</i>	0.0021 €	0.0013 €	62%

- How much extra resources are given on each packs as they get more expensive.
  - An effective discount on the *price of 1 unit of resource*.
  - The biggest pack is always the best to get the lowest unit price.
- Gift ratios represent how aggressively a game is willing to devalue their resources to push spending.
  - Homescapes is aggressively increasing the gift ratio on the 5.49\$ and 10.99\$ packs - then it makes the 21.99\$ and 43.99\$ packs less interesting to push players towards the largest one at 99.99\$.
  - Matchington Mansion is putting the biggest increments early on, and they seem less willing to incentivize users to the biggest packs.
- UX communication on value: even if players are going for the logical decisions, they are unlikely to grab a calculator.



# Life Cycle of New Shop Durables



# Soft-Launches / Limited Launches

- Concept it to launch your game in a limited, controlled market before going big on US, China, Europe, Japan, South Korea.
  - Usual candidates: Canada, Philippines, Singapore, Brazil, Australia, Hong Kong

- Why?

1. Product validation
2. Test the economy
3. Tune monetization model
4. Test user acquisition and marketing



# Assignment



Q&A