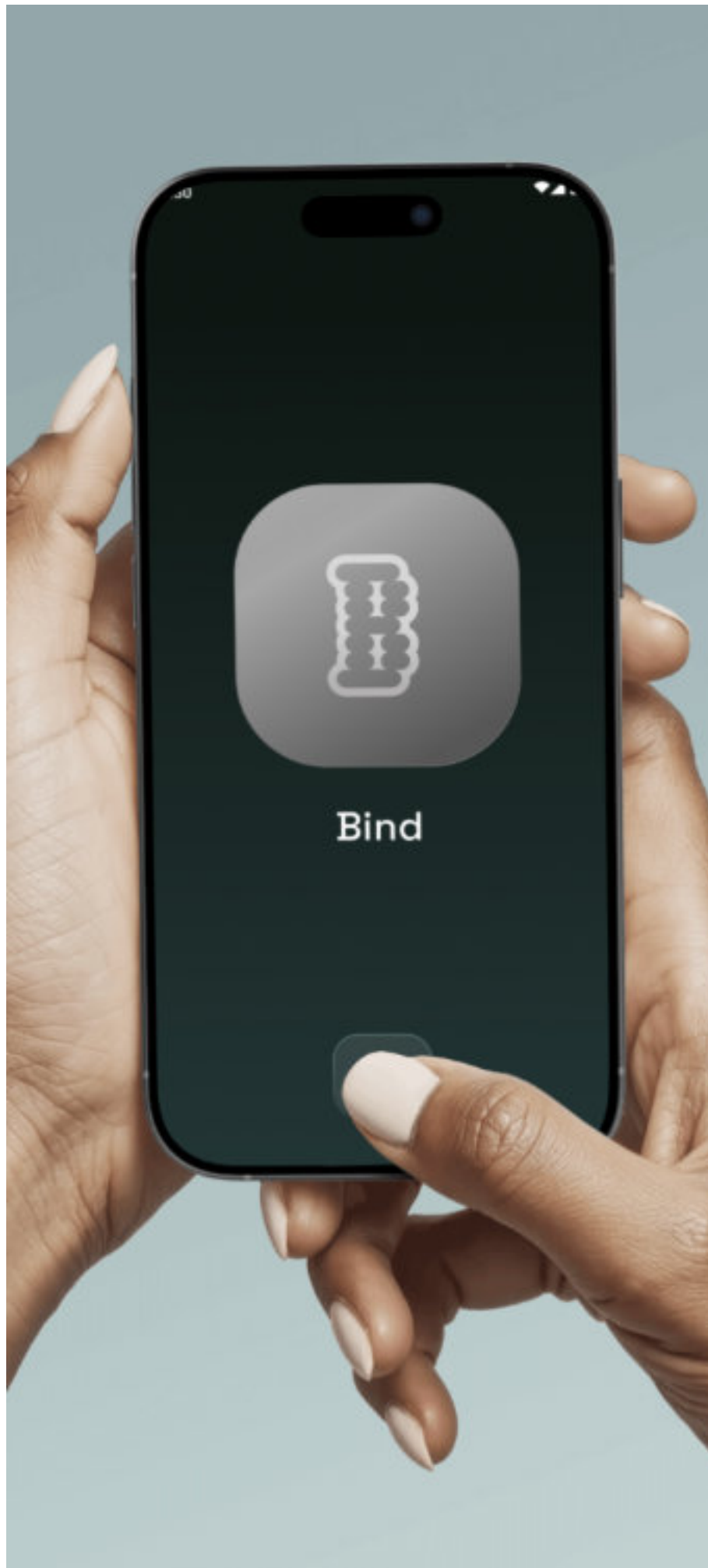




What Dictates Modern Gaming Interfaces ?:

Understanding the effects of Monetization in the Gaming Industry

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ABSTRACT

This Project studies the intersection of modern gaming interfaces , monetization strategies and user behavior in the digital age . As the gaming industry increasingly relies on recurring revenue models (loot boxes, battle passes , gacha mechanics etc.) interfaces have evolved to prioritize psychological engagement over user autonomy . User experiences designed by industries using non traditional revenue streams play the fine line between self preservation as a financial entity and a unique experience curator that lets users explore non traditional gameplay.

Through interviews with developers, focus groups with players, auto-ethnographic studies, and secondary research, this research analyzes how monetization-driven design influences spending habits and fosters user alienation if not recognized at an early point . Users reported good experiences when it came to world and character building and were for the gacha system implemented within these games but held varying user-region based opinions on the financial costs on themselves.

The effect of the gacha system on players can not be singularly concluded as a negative since it varies game to game but there is a correlation with dissatisfaction with personal behavior with daily incentivised game play interactions .

Addiction and complying with user satisfaction is an area that needs to be investigated since the social effects on users are positive but the negative effects on user financial spending evokes risk and in the long run lower user engagement for the game .

The outcomes include a user-centric application designed to help players track in-game expenditures, set spending limits, and make informed financial decisions in gacha-heavy environments.It helps companies that use the gacha system to retain long time players while keeping users informed and engaged .

Recommendations also emphasize policy interventions, including stricter regulations on randomized monetization, mandatory spending transparency, and legal frame-

works for game preservation to protect cultural artifacts from obsolescence. There should also be enforceable transparency by IARC , PEGI and ESRB on game industry to specify minimum spending costs on users and age limits accordingly so .

PROJECT OVERVIEW

PROBLEM STATEMENT

The Gacha monetization system drives users towards continuous engagement for users to fund revenue using methods like daily rewards . inducing a fear of missing out (FOMO) etc, often at the cost of user autonomy and financial well-being . It creates a negative perception of the revenue model due to skirting the line between positive gamplay and negative feelings produced by ill-managed inner game economies .

This creates a tension between profit and player retention while also highlighting the need for player protection

PROJECT AIM

The aim of the project is to understand user perspective of monetization systems in at least one form (Gacha), and facilitate an alternative or a positive facilitator in the process of using games that use this revenue model .

OBJECTIVES

To research on gacha mechanics and how it primarily affects a users spending habits and their perception of the game. Furthermore , to help bridge the gap between the noted perception to allow users have greater autonomy in choices of spending , recommending the best practices and providing knowledge to use the gacha system to their advantage.

SCOPE

Area of scope ranges from 3 different areas : Firstly , user-centric solution that address issues related financial spending and habit reinforcement . Secondly , a government perspective wherein organizations like IARC take more restrictive rating methods including new tags relating to spending and age . Finally , companies themselves create an internal system of tracking user satisfaction over a quarter period for in-game material and user currency generation .

LIMITATIONS

This project relies on self-reported data received during the process of interviews , focus groups and auto-ethnographic study .They can be susceptible towards biases. There is also the need to do longitudinal studies to determine a proper cause and effect in terms of behavior .

There is also the need to conduct geographical based analysis with a larger sample size due to cultural spending habits for gaming varying by regions. The spending habit of Indian users vary greatly in comparison to south east Asian counterparts.

TARGET AUDIENCE

The target audience is those above the age of 18 , users who can pay for their own games but there is still the issue of tracking a major user base of those under 18 who use games which can be accessed for free which have recurring revenue models .

PREFACE

Why Monetization in the game industry ?

As a user , you ask questions that provoke an inherent point of whimsy and pointlessness , the question of why do we pay for games and the amount we do pay for it as a service. These questions in today's age is important especially since the industry have come to exponentially grow at a massive scale but still face issues with breaking profit margins , hitting expectations and maintain game services.

Asking these questions is in itself a reflection of how the recent years of technological ad-

vancements and the gap of understanding between companies and users alienates a large section of consumers from purchasing and engaging with their games. Due to this , the methods games make to dominate consumer thought is by making the entry level low (free to \$0-15) but by increasingly creating engaging content over time and encouraging in game purchases to continue maintenance of these services ..

The gaming industry is massively growing day by day , breaking records every year

and seeing growth to an exponential level. This level of growth comes without regulation to keep up with and research on the effects it would make on people presently. This would rely mainly on exploring more than just the typical avenues of psychology and market decisiosn behind decisions.

TYPES OF MONETIZATION

The gaming industry employs a diverse range of monetization strategies that have evolved significantly from traditional one-time purchases to recurring revenue models, broadly encompassed by micro-transactions(Behuria, S. K.,2022).

A prominent type involves Gacha mechanics, which are lottery-like systems, particularly popular in Asia, where players spend real or in-game currency to acquire randomized virtual items, characters, or rewards. Beyond random draws, games also feature direct sales of specific virtual items, including cosmetic purchases like unique characters or aesthetic skins, where players obtain desired content without randomness

These items can include cosmetic purchases like unique outfits or skins, or functional materials such as weapons and equipment that enhance game-play, with probabilities for rare finds intentionally set low to heighten excitement. Similarly, Loot boxes, a broader term used more in Western regions, refer to any in-game transactions offering randomized rewards for purchase, often containing skins or other items.

Virtual currencies are integral to many of these systems, purchased with real money to facilitate these in-game transactions, with understanding their real-world conversion value being a key concern for users.

Another significant strategy is Pay-to-Win (P2W) gaming, where players spend money to gain functional advantages or accelerate progress using materials or items, intensifying competition and potentially leading to problematic spending patterns. For recurring content, Battle Passes allow players to unlock tiers of content through game-play after an initial purchase, often including cosmetic items, materials, or currency.

Subscription services also offer ongoing content or exclusive features for a regular fee. Lastly, in-game advertising, including promotions from gambling companies, serves as a monetization method that can expose players to external gambling opportunities.

SUBSCRIPTION MODELS

Players pay a recurring fee (monthly or annually) to access the game or additional content.

PREMIUM (PAID GAMES)

Players pay an upfront cost to purchase the game. This is the traditional model for console and PC games.

AD-BASED MONETIZATION

Games are free to play, but revenue is generated through advertisements.

FREE-TO-PLAY

The game is free to download and play, but players can spend money on optional in-game items, cosmetics, or upgrades.

PAY-TO-WIN

The game is free to download and play, but players can spend money on optional in-game items, cosmetics, or upgrades.

COSMETIC MONETIZATION

Selling purely cosmetic items that do not affect gameplay, such as skins, emotes, or weapon designs.

SEASON PASSES

A bundle of future DLCs sold at a discounted price, often before the content is released.

HYBRID MODELS

Combining multiple monetization strategies to maximize revenue (e.g., free-to-play with ads, in-game purchases, and a battle pass).

DOWNLOADABLE CONTENT

Additional content sold after the base game's release, such as new levels, characters, or story expansions.

RESEARCH METHODOLOGY

SECONDARY RESEARCH

Using secondary research in the form of academic papers , reports and dicussions aimed at understanding gacha systems through the behavioural, economic, and cultural layers. Academic literature on dopamine feedback loops, habit formation, and monetisation ethics provided a theoretical foundation, while public reports on lootbox regulation added legal context.

There is also reflections from user generated content from various mediums highlighting different aspects of the issues highlighted like demographic concerns of monetization ,the game industries compliance to gambling (People Make Games,2022) and reviews of gacha games as a whole.

USER EXPERIENCES

Using interviews , we accessed the qualitative relationship of users and the games they interact with . The interviews consisted of 8 users from different countries and different financial backgrounds .

During these interviews, it became clear that financial spending for video games are impacted by social and economic factors, those related to perception of the individuals around them about spending on micro-transactions and the value of gaming as a hobby . Users from east asian countries reported higher spending . Similarly users from United States and Canada reported the same in case of loot-boxes .

DESIGNERS PERCEPTION

Designers and game developers shared multifaceted experiences when it came to designing games in relation to micro-transactions. They say it benefits studios to have micro transactions, it allows a more continuous flow of revenue giving them more opportunities to negotiate with employers and expand on personal projects. Developers and designers argue that the core of game design relies on randomness and probability so loot-boxes and gacha don't necessarily take away but instead add opportunities for players to utilize .There is a division in the topic of what type of items given by loot-boxes or gacha due to it haphazardly affecting the main game-play .

FOCUS GROUPS

The results of conducting 2 focus groups , 5 users each with majority users being male . The discussions had during these focus groups brought into clarity that even if the design and features of 2 games were similar , if the inherent player growth in the game becomes stagnant due to the need of financial investment , it drops user retention and longevity of the game. Topics bounced over game-play balance and why certain games worked over others.Players reported that games that did not insist on micotransactions were more positively seen and those who did purchase in game currency to use for loot-boxes saw positive when items from them added unique experiences in terms of game-play , character stories and world building.

USER INTERVIEWS

OVERVIEW

The interview process was conducted through mainly offline and online mediums in a semi-structured fashion . Depending on each region , the type of questions varied due to their difference in spending habits and cultural influences of societal view on gaming . The topics mainly centered on either gacha or loot-box mechanisms , their view on spending for games and the changes if the industry and how it has affected their financial and habitual expectation in games .We divided the users on the basis of thought process and went in-depth beyond culture into user practices of these games in the individual behavior and and demographic factors.

WESTERN VIEW

Loot-boxes is largely prevalent in western gaming along with Pay to win mechanism .Users largely talked about the culture of flaunting the exclusive and rare items had a massive impact on them when they were younger since they held a perceived value and how depending on games like CounterStrike , would have unofficial markets assigning perceived monetary value to these items. The discussion with this group of users were understood mainly in favor of transparent pricing when it came to the mentioned mechanisms and also gacha. They found that paying for premium games made more sense than to lose money on a game that could continue for a long time and would encourage them to pay more beyond their personal comfort. They also prefer to spend time playing a variety of games and not just one .

EAST ASIAN VIEW

Gacha is the predominant mechanism of most live service mobile games and a point of entry to the gaming hobby of most youngsters as they are free to purchase at no cost while also not having advertisements . As much as they do understand that the system replicates the same feeling of gambling , users do not see it as an equivalent due to the mechanism being only one part of the game . Users in this viewpoint come from the point of investing into a story and characters of a game and not a monetary transaction but of an emotional one . Users spend playing these games on a daily basis and find themselves paying for in-game currency for a longer period of time than the individuals from the western viewpoint .

SOUTH ASIAN VIEW

This group of users were the most affected by their familial perceptions of games and spending. Those within the south asian diaspora are recorded with a larger culture of game piracy and are used to free to play games compared o the other two cultural views. Gaming as a hobby is not necessarily understood by those within their social circles and as such is also evident with low spending for games in general and lower for in-game currency . Though it has changed with games like FreeFire and Call of Duty on mobile , the implication of spending large amounts for a digital asset without an equivalent monetary benefit brings into question if hobbies are to be engaged with on either a monetary , social or emotional activity basis .

6 MALE PARTICIPANTS
2 FEMALE PARTICIPANTS
5 COUNTRIES



THE DIFFERENCES

Though each of these viewpoints from the interviews come with limitations , mainly constraining to the age and number or participants .Through the qualitative studies and accessing the secondary quantitative studies done on minors in an asian context and adults in Germany and Canada in a western context. There are more studies done on in game monetization within these contexts and viewpoints more than in India though here is an increasing interest in understanding users and their choices in piracy .

The interesting tidbits that came out the discussions and the papers is that it could not decide on how to perceive social experiences akin to aspects like adult attachment in form of parasocial relationships (Rain and Mar,2021). Users mainly perceived it positively as they were mainly looking at it with an emotional boundary but when talking about other players within the community , we see vastly different emotional responses .We see this view more prevalent in east asian contexts. If we were to approach this holistically , it draws parallels with the current issues with most households within this region experiencing more work and social based fatigue and finding the act of disengaging more useful.

DESIGNERS PERCEPTION

OVERVIEW

Developers and designers hold contrasting views on loot boxes and gacha mechanics, often shaped by their business objectives, personal ethics, and understanding of player behavior.. These individuals and groups have such contrasting behavior that falls under the type of jobs they have held in the past or the companies they have worked for and seen how development and users interact in the over all process. Some of these developers and designers work on the same game and maintain the game over a period of time like fortnite and Final Fantasy Online which have seasonal passe or subscription models that help in the development process. These individuals come from the perspective of love for their games but see the necessity of following company policies and see reasoning behind it .Every game studio has a ethos behind how they price and monetize their game and it is also a reflection of user behavior in those instances that maintain those systems through attention.

FOR

Individuals who are for monetization see it as a necessity in the current gaming climate where attention has to be paid through making users feel exclusive and attended to daily so that they don't deviate to competitors. There is the additional reason for smaller studios who find financing their projects difficult seeing that investors want to see a continuous profit model versus buy a product once only. There another aspect to it where in it is easier to maintain a game service if it is funded continuously .Previous live-service games where not free on the market but maintained itself through subscriptions models but when the type of genre it catered to slowly lost market interest due to rising cost of subscriptions , relying on in game monetization allowed game developers to integrate new updates at lower costs and higher expectations and with market interest. These individuals see loot-boxes as an extension of game-play design as it replicates the same odds.

AGAINST

Individuals against in-game monetization prefer users buying the game whole or supporting their games to alternative means like merchandise sales , crowdfunding etc. Most indie game developers prefer to go through these routes or price their games for free as personal projects before they start commercializing on public interest. They see the industry understand the users but do not go along with it because it stand against their beliefs of how the system manipulates and forces loyalty to one game and the saturation of the games that have in-game monetization has reduced the overall quality and enthusiasm for making a product that users would love even when they don't utilize manipulative systems. They understand the argument that monetary systems within the games may be seen as just an extension to gameplay mechanics but ask if it is truly necessary to make use of players attention with a mechanic they see and know have been designed to replicate real world gambling.

QUOTES FROM USERS AND DESIGNERS

“Price of games also hasn’t changed in many years but the price to make games has. This has resulted in many seemingly successful games selling lots of copies but still not being able to recoup costs. Micro transactions and the like help to reduce that so that the companies can still make money while not changing the initial price”

Game Developer at anonymous

“Personally, I don't like non-cosmetic micro-transactions in non-free to play games... I like the world where ten, twenty, or a hundred times the players get to play my games a lot more. I'm not going back”

Game Design Enthusiast

“The reason these are famous is they are quite often the ratios used in gambling. The response they tend to get is a very constant and high level response and that's because you don't know how many times you have to respond before you get the reward, so people tend to keep it up .We do have to be careful about controlling people, but we do need to make sure that they feel in control”

Ben Lewis-Evans on Loot-boxes , UX

researcher , Epic Games

“I don't normally spend on games as much as I can so I play games that are free of cost like Overwatch(conatins loot-boxes) and Genshin Impact . Still I do get jealous of other people who have items or characters I like and it often ruminates in my mind to spend money eventhough I don't want to. IT feels like I am battling wih my own beliefs about spending for games”

Indian Viewpoint from User Interview

“I was really young when I got into games like Counterstrike and saw all the cool youtubers paying so much cash to get a super rare skin (cosmetic) for their guns . Watching that, I got into spending my allowance trying to open lootboxes so I could get these rare skins and sell them off but the process of doing so made me hooked. I lost about 50 dollars that week but I still continued , I regret it so much now because it made me vulnerable to these type of tactics ”

Western Viewpoint from User Interview

“I understand its just a game but its also a comfort space for me . I found so many people to talk to and share my love of the characters like Zayne and It helped me feel less lonely. I know the game is trying to get me hooked on these male characters but they feel more comfortable to be with than a real man . They seem more empathetic , loving and dedicated to the female character that I prefer seeing myself in her shoes. ”

Eastern Viewpoint from Focus Groups

AUTO-ETHNOGRAPHIC STUDY

Over the period of 6 months , I as a user tested out a gacha game called **Love and Deepspace** . It is a game currently popular with woman ages 18-40 who are interested in romance games available through phones.

The game is story-driven with romance-able characters and world building. What makes this game the most popular and highest earning game as of today is related to how InFold the company makes use of their understanding of whats missing in the current gaming climate on mobile .

The company advertises their games as woman led , understanding that there is a market of players who want an alternative perception of games built for them. As true as it is , they also were able to understand the traits of players and how to utilize in terms of their monetary gain.During the first 2 months spent playing this game , a pattern was noticed within myself where in I avoided spending the in-game currency to spend on getting a chance at rolling or playing the gacha for the characters I wanted. I waited for a while as I spent majority of my game-play time understanding the story and character backgrounds while also leveling my in game character. It wasn't until I reached a point in the game-play wherein my character couldn't level up anymore did I think to roll.

Avoidance of the system is not exactly a choice received in a lot of these games especially when they incentivise it with character growth , hidden backstories and free consequential rolls .Once you realize how advantages the system is to your game-play , it prompts you to use it as much as you can.

There are special stories locked behind the gacha mechanic that can only be received if collected locking out players from key character growth or background. With discussions with other players of the game , it was understood that as much as they favor a particular character and want to spend in game currency or real world money to collect their stories , the significant strain of playing a chance system wears down pockets .

Though most users spent real world money to receive specific items , the impact of others gaining that item or experience before themselves wears down on an individual. This prompts users to spend more so they do not miss out those experiences. A significant part of players are active online through official channels on social media like reddit , twitter and instagram . Content created by other users keep players engaged and updated but once a player becomes inactive in game-play , they feel isolated from the community.

REFLECTIONS

I felt compelled to buy wishes so many times , I have spent atleast 10 min on the in game store page

I often felt that I was missing out on the stories of the character I like , it made me very frustrated

The first thing I did every morning was opening the game to complete my daily tasks and it made spend more time on my phone

The game helped me to find a community but it also made me concerned how other women found interacting with the male characters more positively due to ther experiences in real life

It often made me worry if I was losing control over my financial spending eventhough I only spent less than 200 rupees .

I find myself opening the game app often because its on my phone , had it been on my pc would I feel like I want to use it less ? I think it being on my phone made it too easy to be a habit

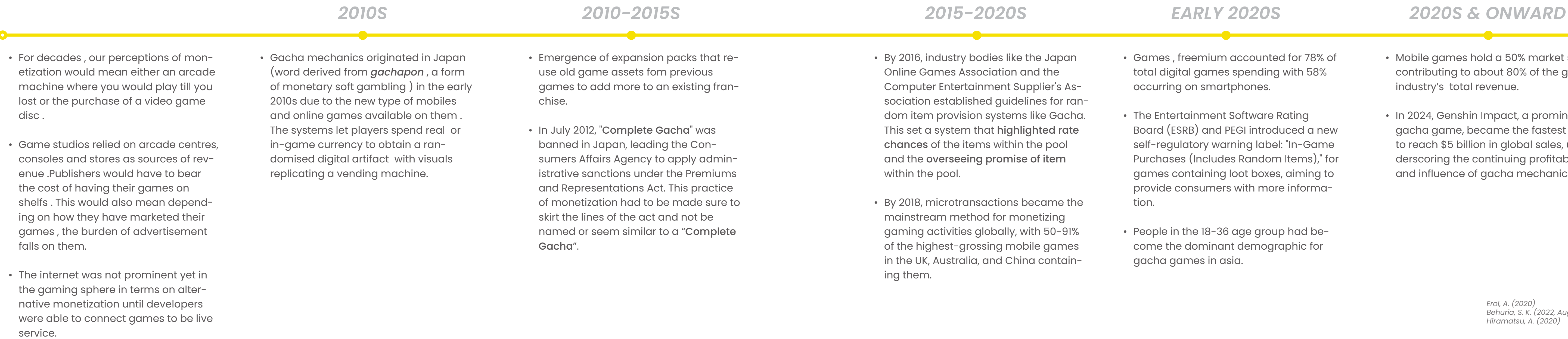
As much as it was entertaining for me , it made me reflect on how much uncomfortable I felt in discussion with other players. There were those who did have the same issues but found themselves asking that they are compliant with it because there is no other competitor that gave them the experiences this game gave them .

Since these stories update for the longevity of the game , it rises more questions on how imposing it might feel on individuals breaking out of the daily rhythm of logging in and the climb in difficulty if one misses out on not leveling their character. It is no longer the case of simply fearing being not-in-the-know but also being locked out of gameplay .

This is the usual design of games regardless but it imposes heavily on users when attributing core game mechanics to a rechargeable items that would hinder per day progress. It made me , a user who used to login in to games using similar mechanics feel more agitated due to the impending slow growth of my character . Progression within this game is slower than Genshin impact , the imbalance of the system made the gameplay tedious . Such points made me realize why majority of the players I had talked to had atleast at one point spent money or have subscribed to a daily rewards system to make progression easier .

The community understands very well on how player progression has become a problem that individuals have organized guides on gameplay, how to maximize earning materials and what to spend on to earn back gameplay items of value.

EVOLUTION OF MONETIZATION



LAYERS OF AN ONION

Companies are adapting to evolving consumer demand for multiplayer, multi-platform experiences by accelerating cross-platform development and leveraging AI to boost efficiency in areas like marketing. (Bain & Company, 2024) Despite substantial growth, efficiency gains have been minimal, with headcount outpacing revenue growth in top developers.

Profitability of the company is needed especially in the volatile landscape due to it being a consistent source that help fund future projects . These recurring models lie in a neutral ground in regards to its ethical implication on users but it raises questions for companies who find themselves in a highly competitive market with high risk and significant investment.



PHYSICAL VS DIGITAL

MEDIUM AFFECTS MONETIZATION

In retrospect , costs incurred by developers is no small sum and if a game does not find itself with returns on release , it threatens small studios and the employees within it . This is a phenomenon still occurring today with the most recent case being Concord , a live-service game with a massive investment of \$400 million dollars . Employees of the studio were layed off due to low interest and lower sales figures, with the developer shutting down shortly after.

The volatility of the market raises concern for companies banking everything on their games with tight margins and live service games , regardless of

the high risk , gives companies a steady stream of income if they are able to maintain public interest .

These live service games are mainly free on launch , hoping that the gameplay and and user engagement drives users to use micro-transactions within the game to sustain prolonged interest . Compared to the physical games of before where marketing and the physicality of the product would cost more , it does not mean the new leeway earned by developers really contribute a large sum to positively affect game studio.



OWNERSHIP

Game ownership means a users right to the access of the game . Ownership in the digital landscape can mean a variety of things once we separate games that do not need internet connectivity to sustain it versus those who need constant online connection.

Users are **given access to** , not completely owning the version of the game that they have paid for in full. The case of digital media is a larger outreach to players across the world , decreased costs in physical disc production and other benefits.(House of Commons ,2019)



RECTIFICATIONS

Games now go through a short lifespan of on release interest due to the number of games that get released everyday. Competitors have to pace themselves when they release their games thus the shorter development time for fixing game issues if they were launched as physical offline discs .The costs incurred by studios if in case there are massive issues within the physical disc , for changing and correcting becomes a larger issue. It also ruins a users gameplay experience and expectation of the final product .Digital media allows correction of the files and reduce costs incurred even though players may be dissatisfied with massive file size and dependency on an online installer.



CUTTING PHYSICAL COSTS

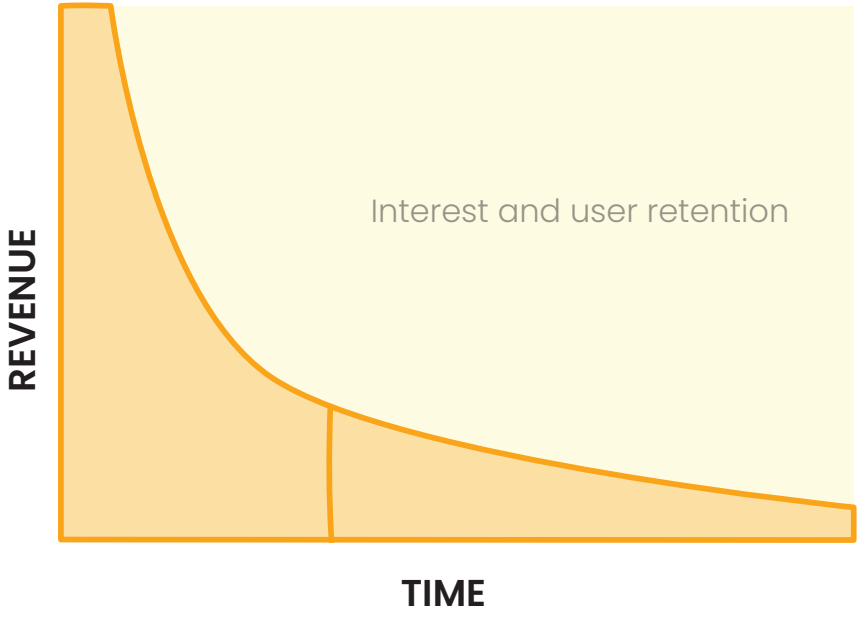
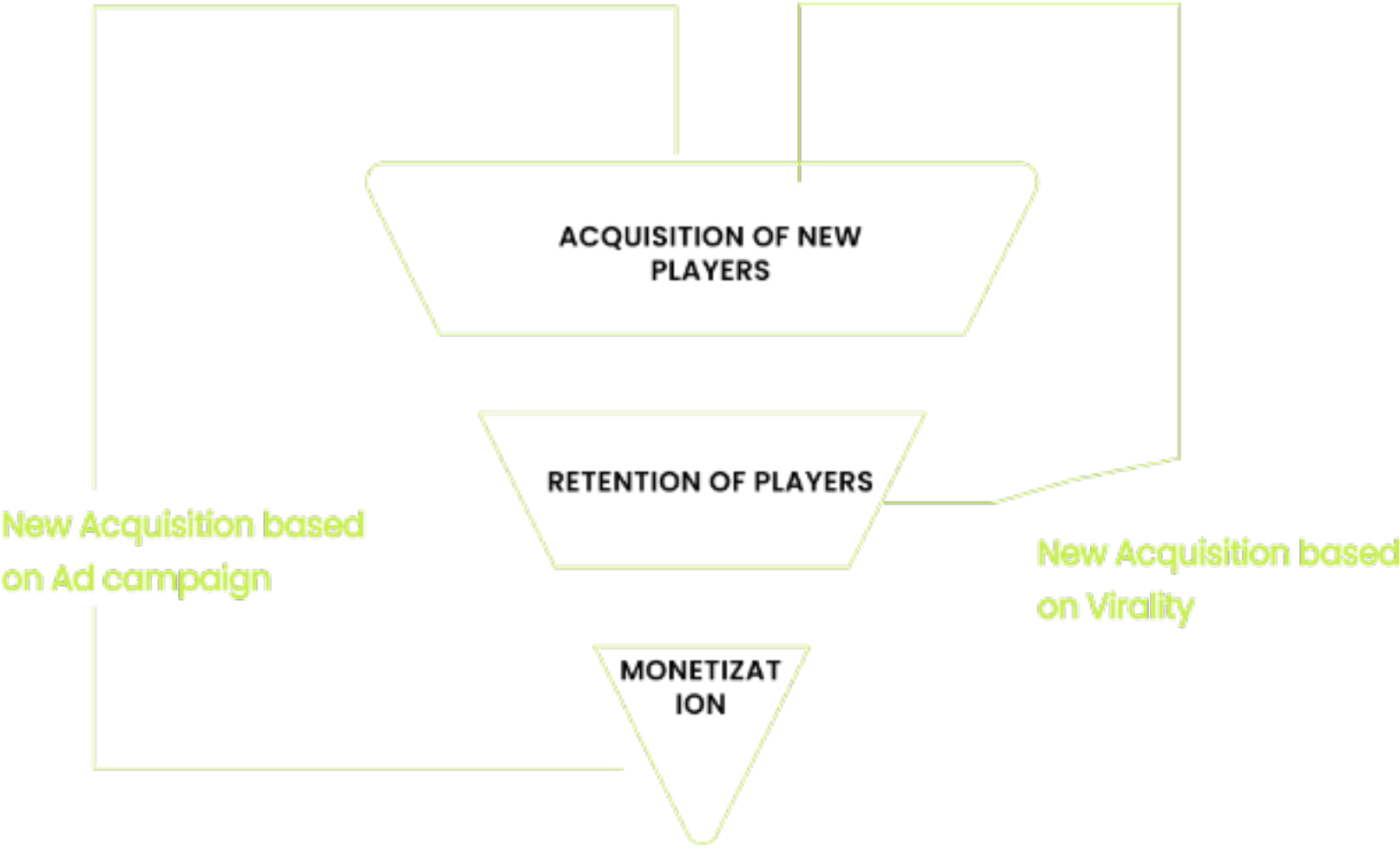
The video game industry has significantly cut physical costs for stores by transitioning from physical to digital media, moving away from one-time purchases of physical copies to recurring revenue models. This shift uses digital distribution strategies, such as micro-transactions, and subscription services etc., which reduce or eliminate the need for physical manufacturing, packaging, shipping, and retail shelf space for game discs. Additionally, the move towards hardware-agnostic experiences means players can access games on various devices without needing a dedicated console or gaming PC, further reducing the need for physical stores to stock hardware and media.

GACHAFICATION OF GAMING

PROFITABLE EXPERIENCES

From the discussions with developers , they notes that in the process of making a game , there is a minimum amount of investments and not a max ceiling. Game companies compete with each other by game-play but over the prices of their games.Over the years, the consumer price for AAA games have been standardized at \$60-70 (as of 2025 the price as increased by an additional \$10) while smaller studios keep up with competitors by making the games free while also earning their profits through micro-transactions using loot-boxes and gacha (Behuria, S. K.2022).

The market is rewarding both games but especially those who use micro-transactions in their game-play (Cordes, S.,2024). Investors insist on it seeing the success of games like *Genshin Impact* , *Fifa* and *Overwatch* earn over \$100 million each at at least one point in its lifetime. These games listed have different types of items and either have no impact , additional advantages or new game-play opportunities to a players experience. The experience and the social connections formed by them brings players back to a continuous cycle till it dies out.



In gacha and Pay-to-Win games, a significant portion of revenue is generated from a minor fraction of players, often referred to as 'whales'. These are players who spend disproportionately large sums of money. For instance, it has been noted that 70% of App Store revenue comes from a small fraction of customers playing games generally. In the context of gacha, high-risk problem gamblers spent over USD \$50 per month, with 25% of them spending more than USD \$200 monthly. Companies intentionally design these mechanics to encourage this behaviour, such as pricing rare characters to cost hundreds of dollars to unlock, targeting players with significant disposable income.

CONSUMER BEHAVIOUR

Users exhibit variety of behaviors unique to these type of monetization .Games reward collectible behavior prompting game-play additive features or increasing a players in game currency . This has been reported by users that they see their hobby as social form of exhibiting self esteem through the use of rare items. Users assign value to items that are rarer , assigning emotional value according to the nature of the item. Cosmetics skins may not necessarily add value to game-play but in turn has been seen with financial value as there been web aggregators that trade these skins unofficially and gain monetary benefits.

At a more in-depth understanding of users finding thrill with the process of using loot boxes and gacha (Steinmetz, F.,2022) . Users described the process of opening loot-boxes similar to sitting in front of a slots machine . This is a point in contention where in developers have argued that anything random producing items could not be comparable to gambling which would give people money. What is not brought into attention is how those who benefit from the aggregators previously mentioned.

The users do report how they have normally allocated time per day to complete in-game goals to receive in game currency to accumulate and use for their rolls(using gacha system) .Habit formation lets developers retain users for a longer period.

REGULATORY ISSUES

Loot-boxes and gacha are differentiated by countries on the basis if it can be directly converted to real world currency. This poses an issue to regulators who want to restrict game companies from utilizing these methods (McCaffrey, M.). The basis of gambling addiction said by government figures become weak as the definition of the system goes against the behavior defined by psychologists . These gaps between scientific rigor , incomplete research and financial incentives bring a larger question of not who to blame but the known problem of today , that is the slowing of systems and regulatory bodies.

Industry based self regulatory bodies find themselves in between of these issues.Games that include these mechanics are rated 12+ and up but in defense of the argument , it could be said that users who do play the game and pay for it are those who are adults(Xiao, L. Y. ,2023). Limiting spending and adding time limits for example China does bring about a larger question of user autonomy being either controlled by the government or by a company (Xi, S. ,2024) .User attention here is what is the most valuable and a derivative commodity for companies.

The recommendation is to finance studies on a larger scale on understanding addiction , companies need to balance out game-play but also allow gray periods in between banners and also self regulatory boards have to decide what their own consensus before garnering new criticism.

FINDINGS

AND INSIGHTS

Wish x10

4 - Guaranteed

One aspect of the ui screen in games that utilize gacha systems. The influence of opaque odds even if these games have mandatory information screen showing the chance percentage of receiving an item is still skewed .These buttons try to entice users with a guarantee that whatever amount that they do spend will at least give them a return even-though in the long term users use the gacha mechanic using the same hope for a higher rated item.

5-Star Item Guaranteed within 67 pulls

Guarantees given by these games are just fallacies when they do not give the guarantee of receiving the item that the users wants . These text copy-write makes users believe in the process of hope and diminish the connection between real cost and feeling like they have been given a deal promised to them by the game.

MONEY + ATTENTION

The longevity of a game is the illusion of how how much attention and profits feed to it. This is a positive and a negative for consumers. Consumers pay for games that provide them some kind of unique social or psychological factor . The decisions made by consumers make sense from the point of convenience and it helps drive engagement with the game further . Its a continuous loop that slowly dies off once developers move on to other projects and in return players no longer stay interested . There is the other possibility of developers not able to sustain quality updates and users drop the game.

DESIGNING FOR DOPAMINE

Games utilize biases and illusions of a definite reward through the use of pity systems. .Users find themselves stuck in their behavioral loops , having spent considerable amount of time into the game and when progress stagnates , they financially spend more and more to continue (SUNK COST FALLACY) . The user interfaces of these games also try urge their users into using their in-game currency and time to coax players into thinking the item probability will be higher the more they spend (near miss effect). Some games also censor the real odds of winning to make the goal more possible. So when players interact with their

Essentially , as said by developers it is a point of the amount of content they make , the increased labor resources that go into the game and the further insistence on monetization after paying an initial or free purchase amount for the game. The question now lies on consumers to make choices decision to wisely choose the games to want play and how it might overall affect their future choices.This type of decision pattern is new and point of exploration.

game community and see them gain the items that the user might have spent considerable amount of time or money on , t gives them a false sense of positive reinforcement that the possibility of gaining the item is still available.

The implementation of limited time banners that contain items that could be earned in a specific period of time also urges to use the gacha system to either gain the item due to an emotional value or to compete with other players in regards to pride and collectibility .

PLAYING WITH CHANCES

The emotional toll taken by players when it comes to taking chances differentiates according to the individual's demographics and emotional state. According to the Problem Gambling Severity Index (PGSI) studies on gacha and loot-boxes , it has established a correlation with problem gambling symptoms .For gacha gamers, higher stress and anxiety levels, greater expenses on gacha purchases, and a larger number of motives for gacha purchases are key factors that can predict a higher risk of problem gambling.

With these and additional factors including social influences and the cultural contexts of players not considered by the index , we still do not have a full picture of the social circumstances led by players due to the highly variant circumstances between players of different regions and financial situations. Individuals either see that the social credit they gain from these games either add a value to their personal or public life. Players also see it and the surrounding community as a form of social interaction , whether its with other players or game characters . Completely disparaging players do not make sense if it alleviates a certain degree of social isolation but it should also not stay as a substitute in the long run.

Governments have to to engage on the matter of gacha not out of the stance of corporate greed which it is not but understanding vulnerable citizens monetarily , socially and emotionally.

Countries that exhibit issues of struggle with gacha and gambling (excluding countries and vulnerable demographic like children) have citizens aged 28+ and spend considerable amount of money in their games . There is a need to study this community even more indept over a period of a year and track spending on a larger extent . The research conducted to this point understands that even if the topic of this project has an effect on its users , what affects the question of how we reached this point with users is a larger social dilemma .

PROBLEM STATEMENT

SELF MANAGEMENT

Users need a point of self management and reflection in the case of being led by continuous engagement through the use of different dark patterns and cognitive biases . These systems compromise on user autonomy and often make users struggle on the point of control.This becomes a point of concern especially when games are not completely age regulated and could make users of certain demographics susceptible to bad practices. The priority is to let users enjoy playing games while balancing out gameplay and spending while retaining more users over a period of time.

INTERVENTION POINTS – HMW ?

PROFITABLE EXPERIENCES

How might we design engaging gameplay loops that encourage long-term retention without relying on artificial "grinding" or compulsive mechanics?

How might we make information about gacha game tips easily accessible and understandable to consumers?

How might we empower players to effectively manage and control their in-game spending and time investment?

How might we design game experiences that do not lead to negative psychological states?

HMW reduce the addictive potential of in-game monetization mechanics like loot boxes and gacha systems for all players?

HMW alert players on creating boundaries with the games they play ?

POSSIBLE DESIGN DIRECTIONS

UNDERSTANDING GACHA THROUGH A STORY GAME



There is an overlap in users who like gacha games and story based games. Seeing how this overlap is quite large , there is a large scope in doing a visual novel game describing and exploring the central themes of the research topic.

Users are more receptive in learning about historical events or understanding prominent social issues when given the format of a game. It lets people explore decisions that they believe in, thus show them the consequences of the actions that they choose.

Story themes that can be explored : psychological , meta-narrative and political . User agency is what makes the themes worth exploring and depending on the story , gameplay, and art style.

Bringing parallels to real player experiences with the monetization systems will help players understand themselves and other users who may be struggling with addiction , loneliness and the complicated nature of how users interact with media.

POSSIBLE DESIGN DIRECTIONS

SPECULATIVE LOOK OF THE FUTURE



With how intrusive the type of emotional connections are between characters and players are slowly forming, we ask questions on the future of these relationships and how monetization would affect it.

Micro-transactions is now the lifeblood of the modern gaming era and will stay that way till a alternative is made. Regardless, it is the machine that keeps operations running and the next big innovation speculated is in the space of virtual and augmented reality.

As said previously, games can either hinder or progress real world relationships but it depends on the boundaries laid by the user. In a world where individuals are finding difficulty making real relationships, finding alternatives in social communication has its ups and downs. Would an augmented reality device help those individuals experience games that could teach them better social skills through the use of subscriptions or other micro-transactions? Would it be a good idea to fund relationships with characters using micro-transactions?

Companies are already investing into concepts like the Metaverse and hardware like the Oculus and the Apple vision pro. If these devices become a prominent feature of daily life equivalent to a phone, how we interact at large and the types of digital boundaries we set becomes an interesting topic to explore.

POSSIBLE DESIGN DIRECTIONS

SELF-REGULATION THROUGH THE USE OF AN APP



One method of allowing players to continue enjoying their games is to help them stay consistent on their personal game based goals. This could be accomplished either in-game feature or game adjacent app.

In-game features could be implemented by understanding the core game-play or story. For story based games, it can use characters which the player interacts with the most to have special dialogues or actions triggered when it realizes that the player has reached maximum screen-time or spending

over a limit. Ideally game companies can collaborate with a third party and help users track their gameplay style and spending.

Depending on each user's goal, game companies can help incentivise users by increasing in-game currency or additional materials and help characters grow.

The application can also be a hub for helping players make use and learn best methods of playing their games. It could also help players choose how to spend their currency

wisely. Depending on whether or not companies collaborate with the apps developers, it could also help players choose better decisions on planning and paying for the items they need. These features utilize points of self reflection.

DESIGN

FINAL CONCEPTS

DESIGN STATEMENT

CREATING A HABIT AND SELF-MANAGEMENT APP

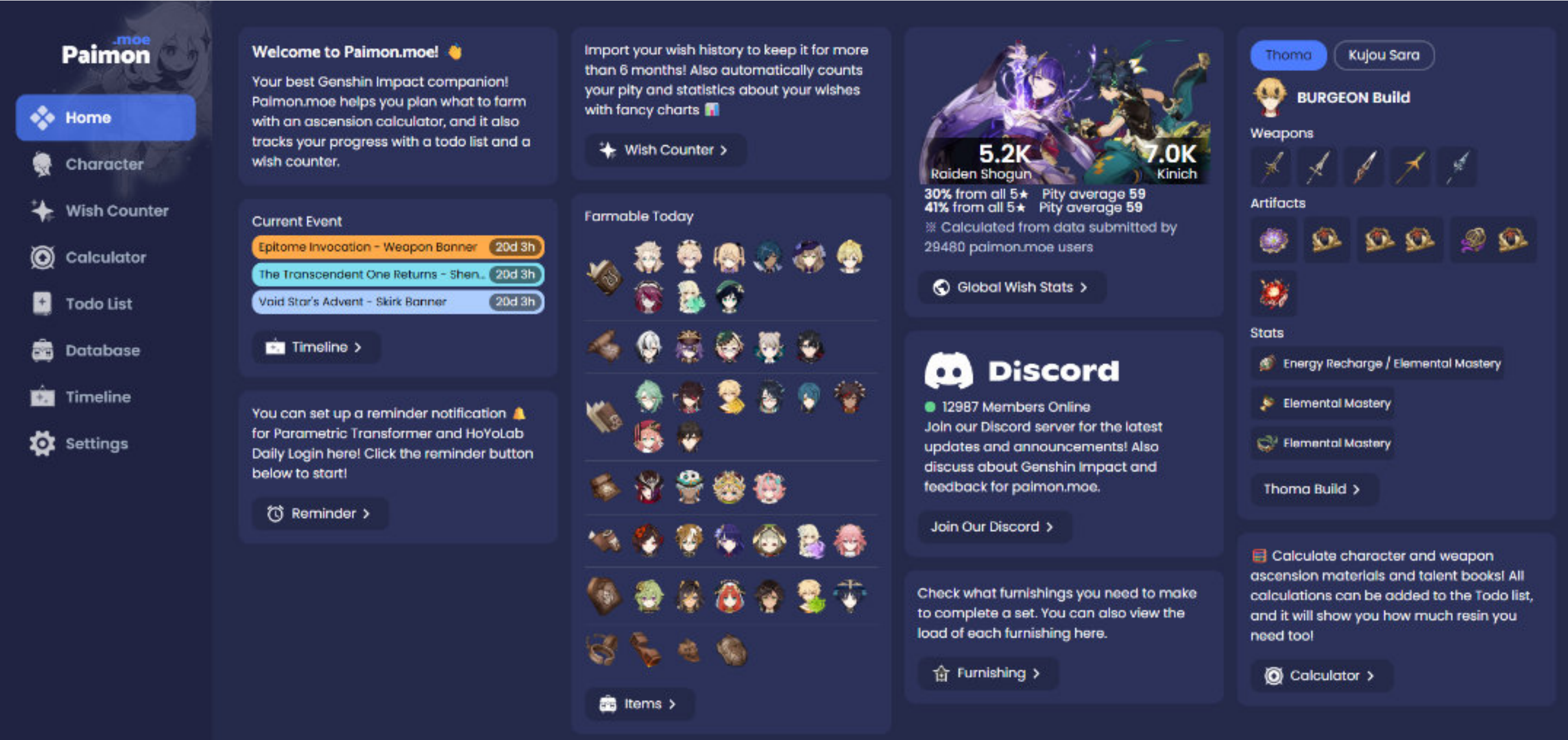
This app offers a self-regulation tool for players engaging with gacha games, developed in response to the growing tendency of such systems to encourage compulsive behaviors.

By making key metrics—such as spending, pull history, and drop rate probabilities—visibly accessible, the app creates space for more informed and reflective play. It does not discourage participation, but rather introduces optional boundaries: users can set personal limits, receive gentle alerts, or take short pauses through cool-down prompts.

Over time, this fosters a shift from reactive to conscious engagement. The app is not a solution to gacha systems itself, but an intervention—one that improves the quality of life and helps individuals approach play with clarity and intention.

BENCHMARKING

PAIMON.MOE



Paimon.moe is widely used gacha tracking website for the game Genshin Impact .It allows players with clean visualizations of their pull history, including pity count and drop rates, and pulls data directly from the game's API. While it is a helpful tool for understanding the mechanical side of gacha systems, it stops short of addressing the emotional and behavioral aspects of why users pull or how they feel afterwards.

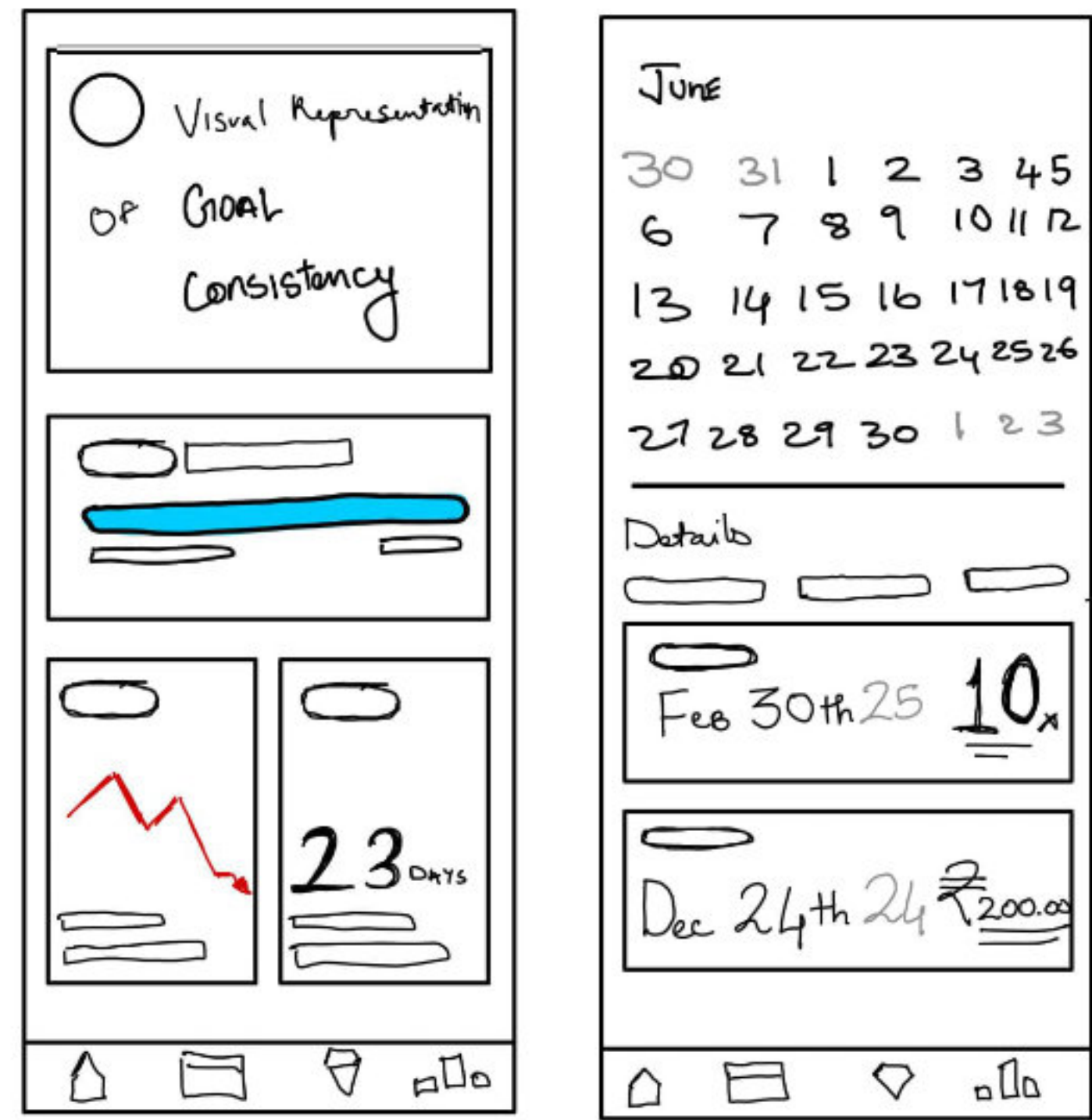
The app proposed for this study looks to act more than just a tracker for the games but also to monitor user behavior in regards to habitualised actions and understanding monetary spending on resources and the real world cost on its users pockets.

This site integrates an api from Genshin Impacts company Hoyoverse , but the website as of currently focused only on this game. The proposed app we are focusing-on would integrate api's while also having optional and manual tracking.

Paimon.moe details out the pity systems and rarity visualization in comparison to the proposed apps intention to also include a users pull logs .

The website also does not track the financial spending within the game whereas the app proposes to track multiple apps and the spending done on them and the frequency of it.It also helps users to ascertain a budget they would like to stay under.

DESIGN DIRECTIONS



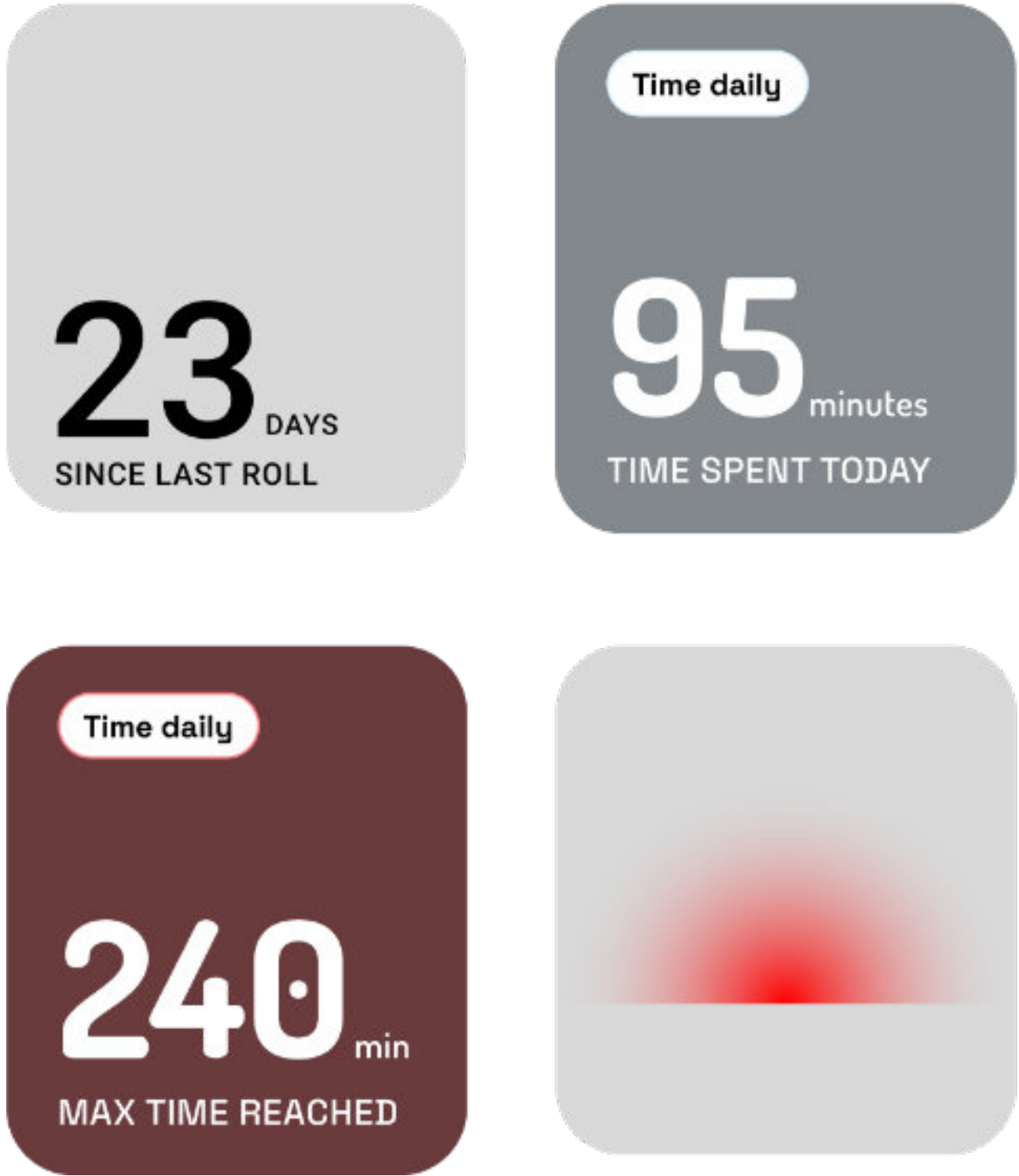
Run a simualted pull

Wish x10

4 - Guaranteed

The process of ideations came through understanding what users wanted . Users wanted two things , to habitualise minimizing spending or making better financial choices within the game and help countering the feeling to use the gacha system .

For these reasons , the initial plans for screens were based on what information that users wanted to see and reinforce daily to maintain habits and creating a system to understand drop chance of the item they like by simulating the user interface of the gacha system. It helps players mitigate the thought of using their actual game resources and make better decisions without regretting while understanding how to maximize best gameplay practices.Habitualising and reinforcing good behavior would lead to better positive relationship with the game and overall retain players for longer and decrease satisfaction rates produced with massive spending and low rewards.



The application also takes modularity as a main design goal as it follows the principle of following priority.

With the initial user flow focusing on understanding and accessing user needs and goals , we allow them to see information of need at a glance.

The main design scheme other than feeling similar to a habit tracker is close to feeling like a typical game launcher interface.

USER SORTING

The initial screens of the apllication helps sort users out into 3 groups .The groups are reminiscent of the titles given in the gacha community like whales , dolphins and free to play players.

Once the initial screen understand the user archetype and the personal goals and budget set by them , the application alter the the screen information hierarchy and goal roadmap according to it.

User can resort themselves anytime as ones financial and social lifes change every few months and self monitoring is the main over-all goal



The torn rope reflects disconnection from one's goal and helps to communicate to users that they have not followed through with one of their goals . This easy signifier helps users to encapsulate the emotion and intent of why they installed the application and serve as a point to reinforce better habit maintainence.

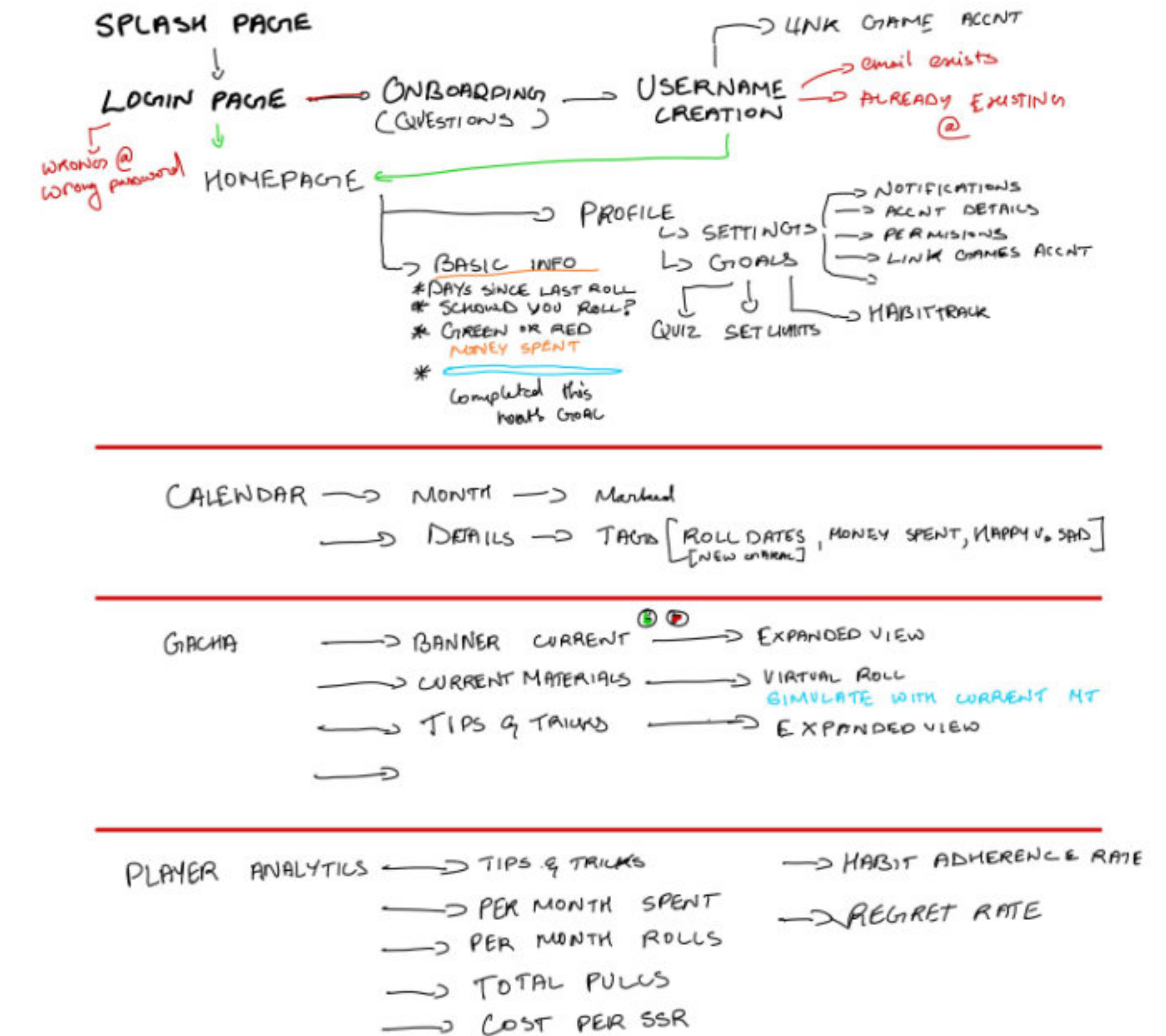


The knotted rope symbolises resilience and active effort. It represents that users have followed through with keeping their goal and staying consistent consecutively over a period and is a signifier that users can use to praise themselves and hope to maintain till they no longer need the application.



The straight rope signifies to users of the beginning of consistency in their goals and the eventual mainataience of the goal for a longer period. It helps users understand that everybeginning is a small step to something larger .

INFORMATION ARCHITECTURE



STORY BOARD



Ravi chased the high of spending on his favourite games and realizes he just couldn't stop anymore.

He wants to change and start investing for his future but also spend on his games smartly so he downloads **Bind**

Bind helps him stick to his goals of spending less time and money on his games while also spending smarter . He finds himself slowly establishing boundaries with games.

Ravi now finds himself with more money to save for the future and a better understanding what his playing style is and how to improve on it going forward.

USER PERSONAS



David
Age : 19
Location : United Kingdom
Occupation : Student
Playing Habits : Daily player

- Pain Points:**
- Spends more than intended during special events
 - Doesn't track how often he plays or pulls
 - Struggles to say no to "limited-time" banners

- Goals:**
- Enjoy his favorite games without guilt
 - Learn limits of spending money in game
 - Avoid distractions during academic deadlines

- Behavior:**
- Curious and open to reflective tools
 - Drawn to visual data
 - Sees the app as a way to improve his habits, not restrict fun



Sujatha
Age : 42
Location : India
Occupation : Homemaker
Playing Habits : Not player

- Pain Points:**
- Worries about child's spending habits
 - Finds it hard to talk about games without dismissal
 - Unsure of how gacha works

- Goals:**
- Understand how gacha works and risks
 - Introduce her son to tools to manage himself
 - Support responsible digital habits

- Behavior:**
- Seeks educational value and ease of use
 - Passive oversight rather than invasive monitoring
 - Tool to help conversations



Miriam
Age : 28
Location : Saudi Arabia
Occupation : Consultant
Playing Habits : Advanced player

- Pain Points:**
- Feels burned by previous spending with no returns
 - Has tried budgeting, but finds it hard to stick to during hype events
 - Notices emotional fatigue after heavy play sessions

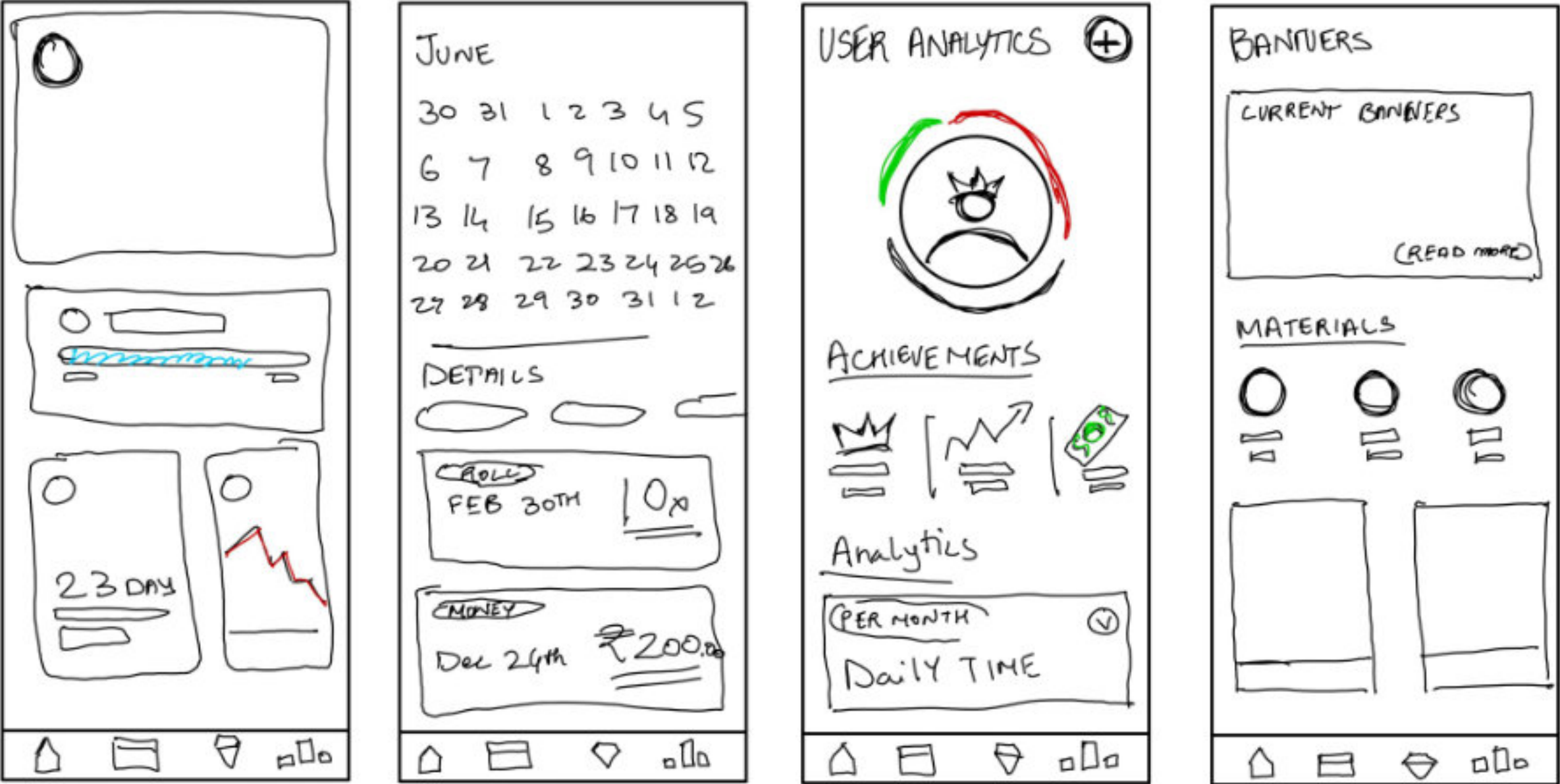
- Goals:**
- Rebuild a healthier relationship with gacha games
 - Use analytics to make smarter pull decisions
 - Stay in control without abandoning the games altogether

- Behavior:**
- Values transparency and insights
 - Appreciates prompts that encourage emotional check-ins
 - Likely to recommend the app to others if it proves useful

To design the app , one must understand what users needs and their pain points. Using personas helps us clarify the main goals of app and understand the effectiveness of the functions it tries to use. It also helps us understand design opportunities for new features or functionality for the future.

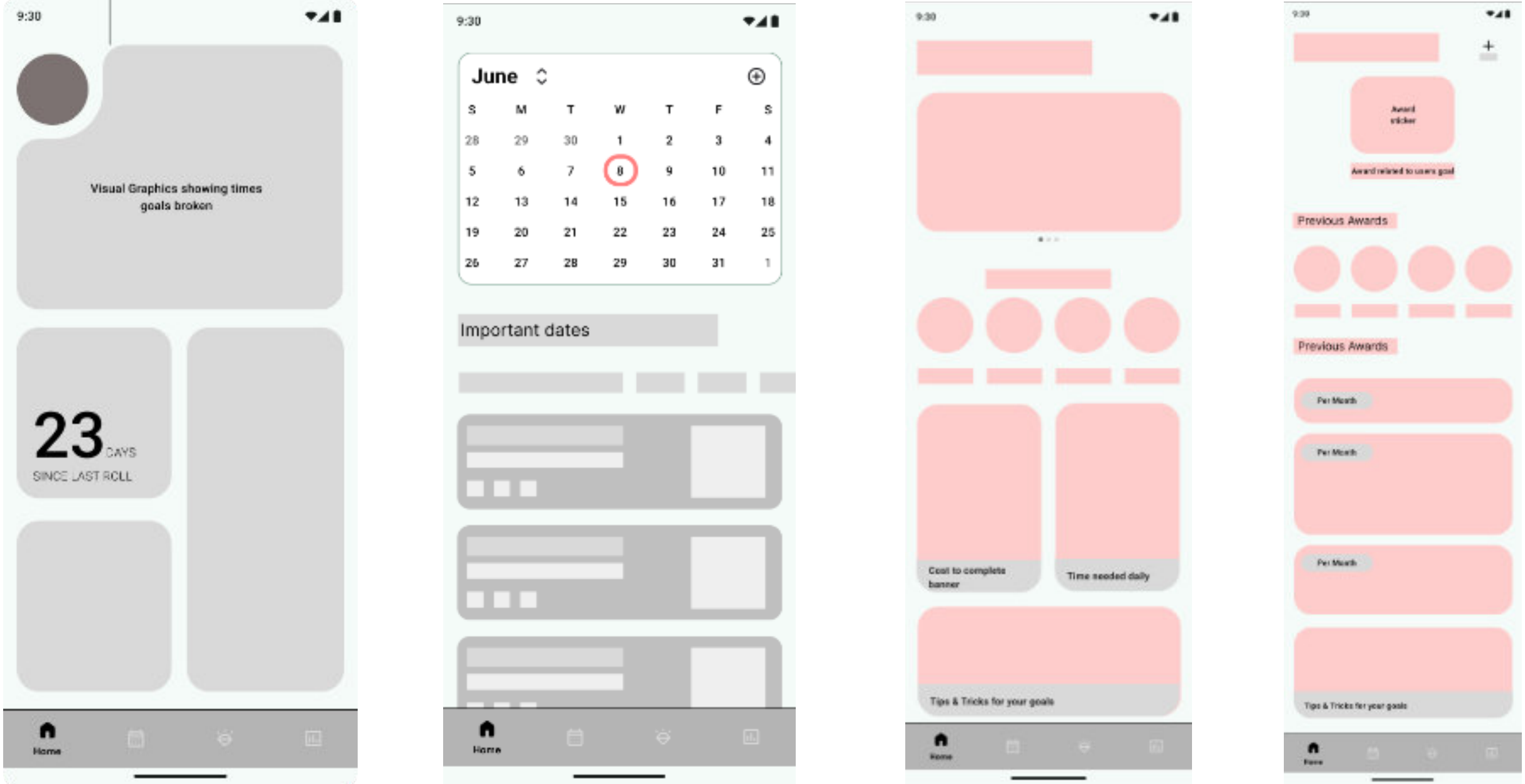
LOW FIDELITY WIREFRAMES

The initial layout-ting was difficult but a priority matrix helped decide the order of components ranked by prospective users and how they plan to use the application as a daily quick view .



LOW FIDELITY WIREFRAMES

According to the previous design explorations , we kept the design to be bento inspired . The quick view information can be rearranged depending on the users wants and needs .



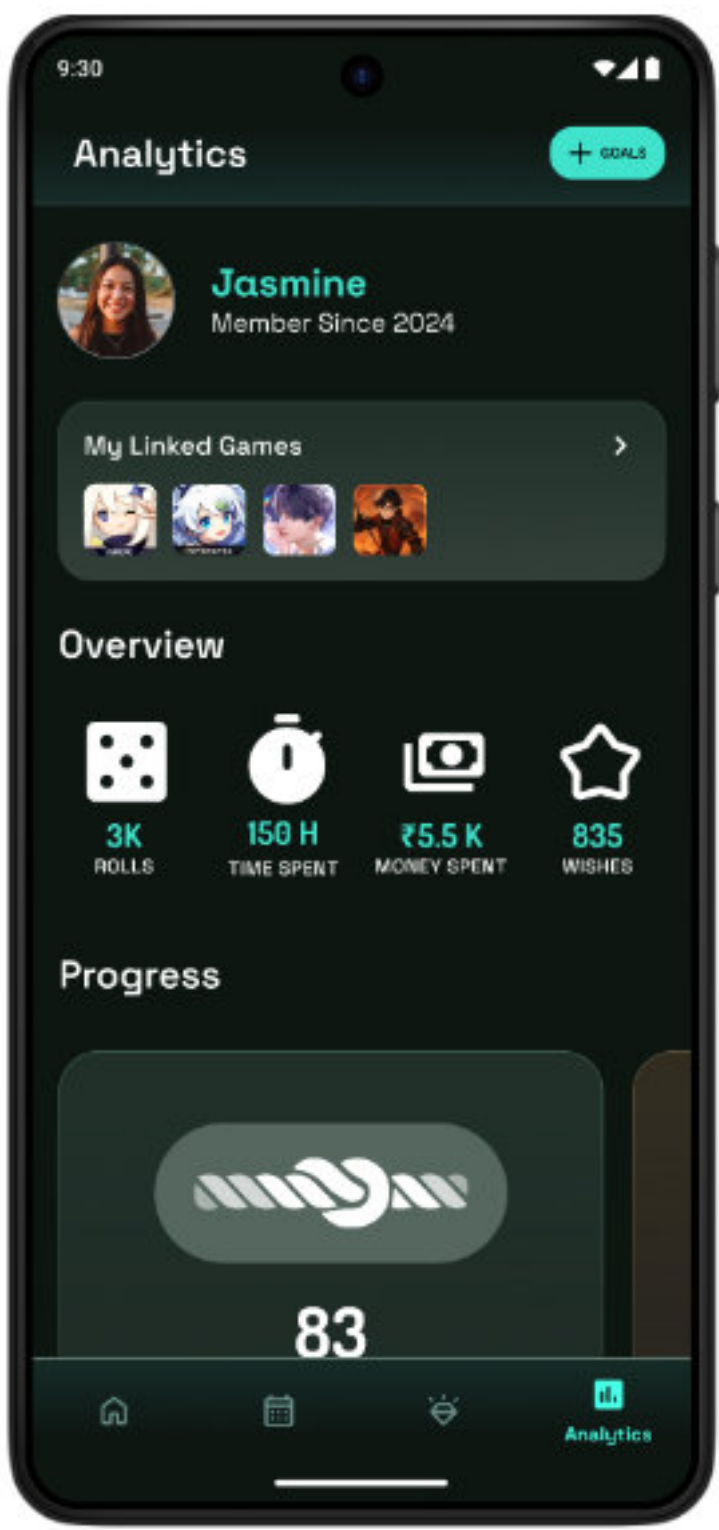
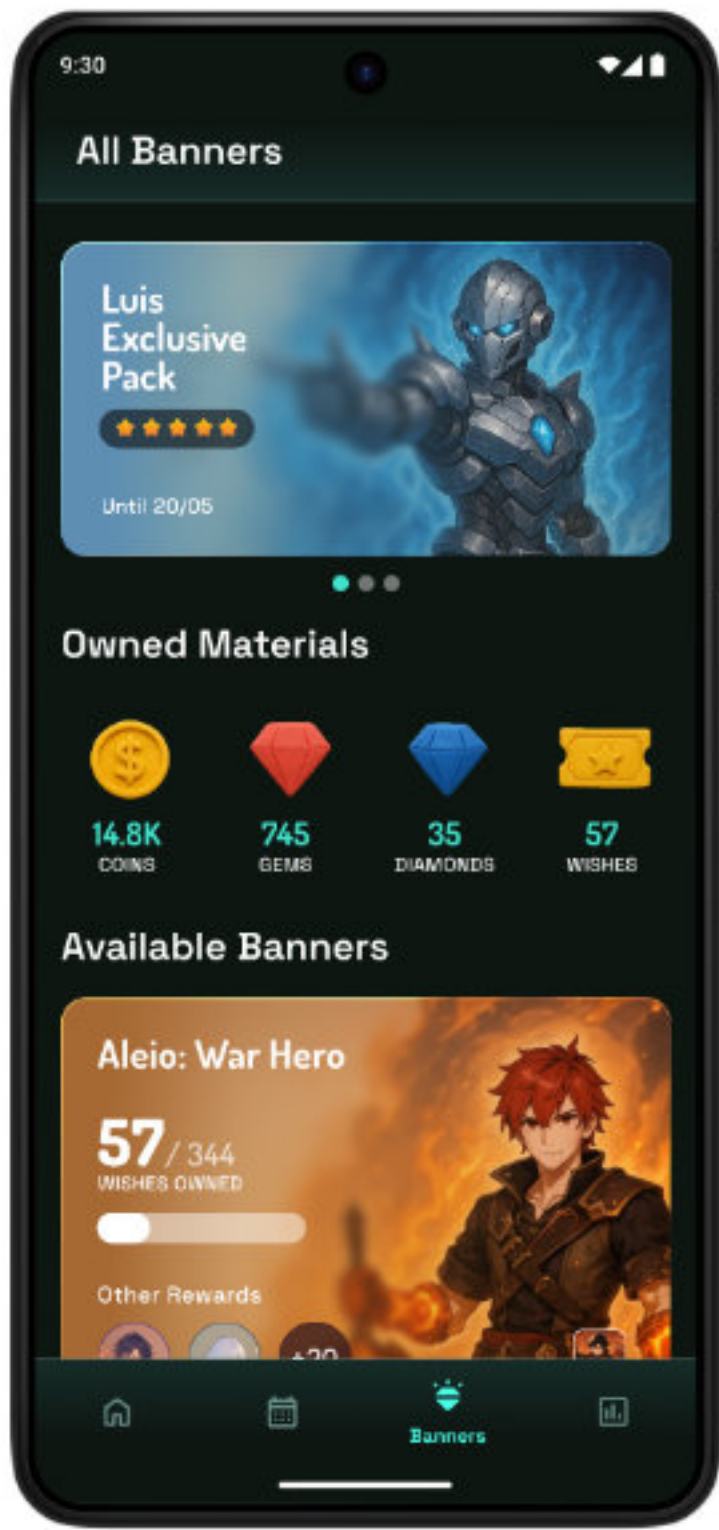
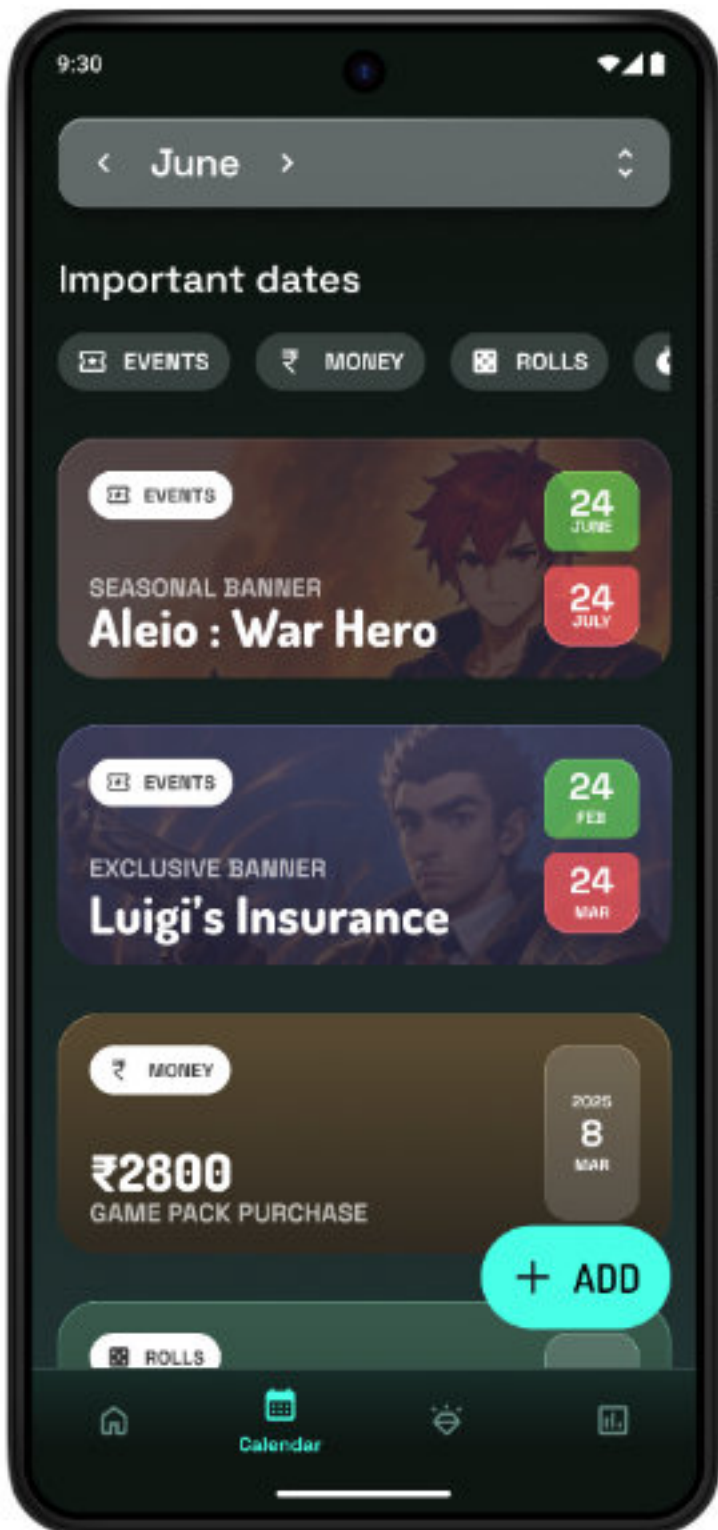
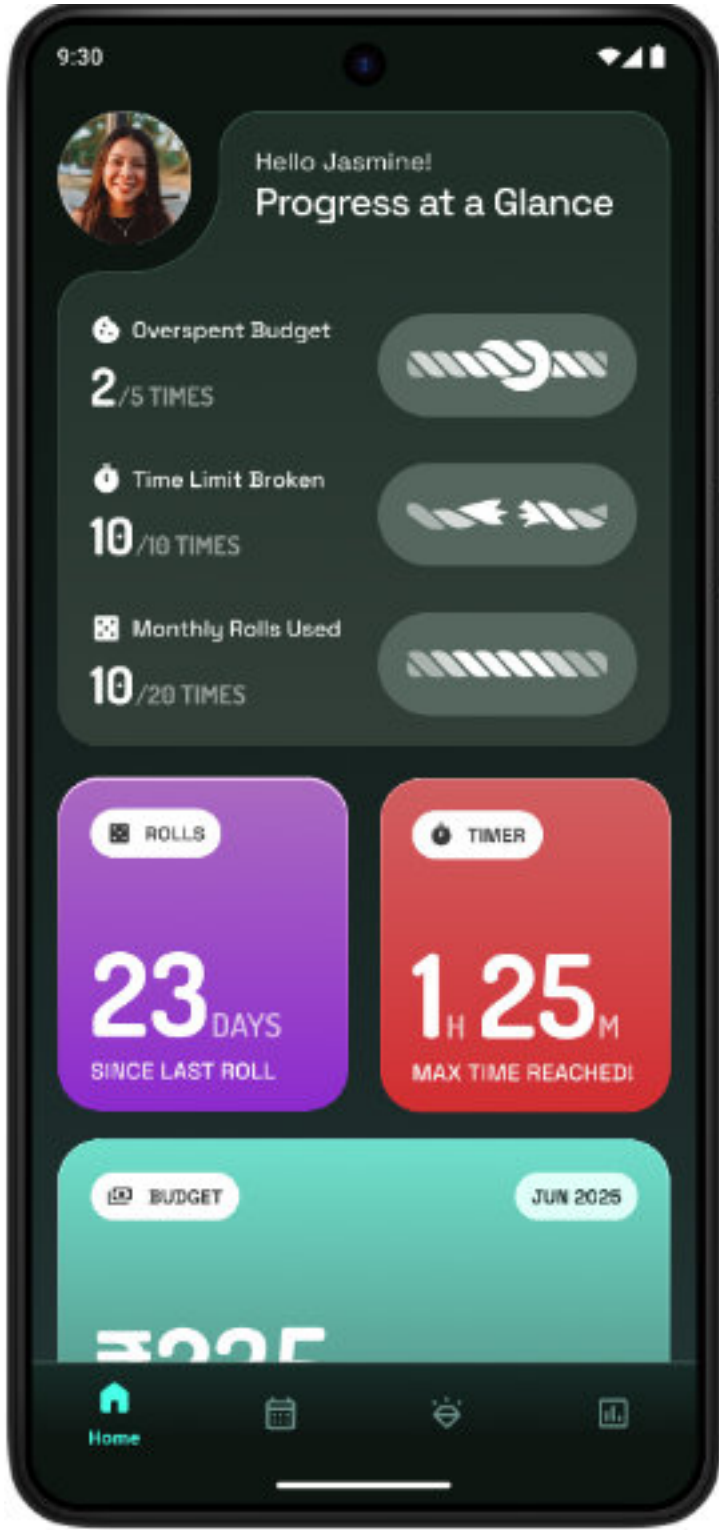
FINAL DESIGN OUTCOME



THE INTERFACE

An Overview of the App

Companies are adapting to evolving consumer demand for multiplayer, multi-platform experiences by accelerating cross-platform development and leveraging AI to boost efficiency in areas like marketing. Despite substantial growth, efficiency gains have been minimal, with headcount outpacing revenue growth in top developers.



MAIN APPLICATION SCREENS

This app offers a self-regulation tool for players engaging with gacha games, developed in response to the growing tendency of such systems to encourage compulsive behaviors.

By making key metrics—such as spending, pull history, and drop rate probabilities—visibly accessible, the app creates space for more informed and reflective play. It does not discourage participation, but rather introduces optional boundaries: users can set personal limits, receive gentle alerts, or take short pauses through cool-down prompts.

Over time, this fosters a shift from reactive to conscious engagement. The app is not a solution to gacha systems itself, but an intervention—one that improves the quality of life and helps individuals approach play with clarity and intention.

USER TESTING

User testing was conducted with 3 users from India and had mostly positive reactions . The users were individuals who understood the gacha and lootbox system well and have made in-game purchases in the last 6 months under 800 rupees. They found the system easy to navigate but asked for a rearrangement of key information on screens depending on the type of user tag they are after the initial screen process . Depending on player type on goal , 2/3 users wanted to see a better information hierarchy .

The users also noted that as niche as gacha games and lootboxes are in India , they would've Preferred seeing this implemented at a larger level for users who involve themselves in gambling apps as game players in India do not necessarily go beyond their budgets or atleast appears as a less frequent problem compared to its monetary producing counterparts.

All users expressed intent on seeing the application being useful as a daily driver and felt that the user interface is similar to the game publisher Steam's app themes and felt it was appropriate for the user base.

Users found that having a compilation of spending being visible in the calendar screen helped assess information about spending rather than manual means .



CONCLUSION

This project has examined the intersection of gacha mechanics, player psychology, and ethical design, with a particular focus on how monetisation systems shape user experience and behaviour in modern games. Through a combination of research, user insights, and speculative design, the work has sought to understand not only how these systems operate, but how they feel to those who participate in them. The aim was not to vilify gacha or game developers, but to explore how design might acknowledge and support player agency more meaningfully.

The proposed interventions—such as the self-regulation companion app and narrative-driven game concepts—illustrate that responsible engagement and entertainment need not be mutually exclusive. By foregrounding transparency, habit-awareness, and emotional context, this project contributes to an ongoing conversation about how games can be more than just addictive systems. They can also be reflective spaces—ones that understand their users as people, not just metrics.

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DEFINITIONS

EXPLANATION OF CONCEPTS FOR REFERENCE

- **Gacha:** A game mechanic where players spend currency to receive random virtual rewards, often characters or items.
 - **Pity System:** A mechanic that increases the chance of obtaining a rare reward after a certain number of unsuccessful attempts.
 - **Whale:** A user who spends large amounts of money on in-game purchases, often disproportionately supporting a game's revenue.
 - **Dolphin:** A user who spends moderately on games, often during special events or limited-time offers.
 - **Dark UX Patterns:** Design techniques that manipulate users into making decisions against their best interest, often to increase engagement or spending.
- **Autoethnography:** A self-reflective research method where the researcher uses personal experience to understand cultural or systemic phenomena.
 - **Impulse Pulling:** Making unplanned gacha attempts triggered by emotion, rather than strategy or planning.
 - **Behavioural Nudging:** A subtle design approach that encourages certain user behaviours without direct enforcement.
 - **Lootbox:** A digital container in games that gives randomised rewards, often purchased with real or in-game currency.