One of the most basic things when it comes to games, is, of course, deciding what kind of game to make. A crucial element, once decided what game to make, is understanding what the essential part of the game is. For most games that is usually the core game, which is the element that usually feels like what most people think of what the game is. If you think of a shooter, the whole set of actions like moving, shooting and destroying opponents is the core game. Some games consist only of the core game, such as chess or DOOM. Many if not most digital games today also have a meta game. With a meta game, we mean a game that surrounds the core game with a secondary experience. This can range from everything as
a secondary minigame that supports the core, community tools such as a guild to progression mechanics that enhance the core game. Think of *Angry Birds 2*, where players do not just play levels and destroy blocks in the core, but also collect feathers in the meta side of the game via rewards that increase a number multiplier that allows you to gain a bigger score from blocks in the core. Some games go as far as making a meta game so complex and fulfilling, that a game becomes almost entirely about the meta. Games like *Summoners War* can be played primarily in a meta mode, where players manage teams of warriors without having to actively participate in a core battle. As mentioned, many a mobile game has a meta game in additional to the core game, and Free to Play (F2P) games rely heavily on that. It is however crucial for the design of the game to decide where the focus lies. A game must either have a primary focus on the core and be supported by the meta or be mainly on the meta and be supported by the core. If the design tries to make a game about both, neither element will have a focus and ends up suffering. In the words of Sid Meier: “One Good Game Is Better Than Two Great Ones” (Johnson, 2009).

### 7.1 AUDIENCE

When thinking of what kind of game to build and how to balance core and meta, you need to know WHO you are making the game for. You can basically build the same game, core and all, but have the balance be different—having focus areas in the core and meta be in other places. A great example are RPGs such as *Dungeon Boss* vs. *Star Wars: Galaxy of Heroes*. They are very similar games but where one has a more casual appearance, appealing to players who like quirky stylized fantasy, the other is a more grown-up experience with a strong sci-fi vibe. Knowing who you make the game for does not just help the design of the game and dictate what features make sense, it also helps the visual development about what is the right art style for the game, and it helps user acquisition and marketing in finding the right ways to let your potential players know about your game.

### 7.2 GENRE, ART STYLE AND CASUAL, MIDCORE vs. HARDCORE GAME

Figuring out your audience is not a trivial problem, and there is no one single solution, nor is it a scientific process. A first step in figuring out where to look is the understanding of what ballpark game genre your game fits in. This might be more than one depending on the features of your game. The visual style of your game is another. Some people like a
specific visual style, while others do not like it. And it isn't always the big-
gest range of appeal that might be good for your game. It makes sense to
test your art together with marketing to find what appeal your art has and
for whom. Caution is advised, just because people like your art, does not
mean they will like your game. The sooner you can test a combination of
art and game the better, as it will give you results you can trust and show
the relationship between gameplay and art and audience.

When it comes down to audience, knowing how casual or not your
game is helps in your strategy. Casual players tend to like games that are
less dexterous and not skill heavy, relying on more luck elements and sim-
ple game rules. That doesn't mean those games can't have a high level of
mastery and require skill to reach the highest levels, but ease players into
the game very gently and tend to have a very wide appeal such as Subway
Surfers. On the flip side, we have hardcore games. These tend to be games
of very high skill, even though they can be at times be approached quite
easily; highly successful examples are PUBG: Mobile or Game of War.
Many games land somewhere along a range between those two extremes.
The middle we call, well, midcore games. Where casual games can have a
massive audience, and rely on masses of players, they are relatively easy to
build. Hardcore games usually have a much more limited audience size,
and cost for user acquisition is much higher and they tend to be harder to
build. New teams and companies do well going down a more casual route
until working together becomes smooth before attempting the riskier
other games. In any case, make sure you have a plan; know WHAT game
you make for WHO!

7.3 MONETIZATION

In F2P games, monetization has to come from other ways than selling
the game in the same way as traditional game sales. The days are over
when the boxed game makes the most money and many of those “pre-
mium games” now also employ additional ways to let players spend
money on more content. F2P games have to find monetization ways or
they won’t bring in money for the people behind the game, unless you are
an altruistic developer/publisher, you are in this business to make a living.
Simply put, there are two basic ways to make money in your game. You
have advertisement places in your game or your lock content behind a gate
that must be unlocked first. That unlock can happen after some time has
passed, by watching an advert, by paying for it or a combination of those.
The passage of time is usually coupled with an advert for spending money
to reduce or remove said timer. Imagine you lost all your lives in a game, and it takes ten minutes to gain a new life back. You can either wait (the free option) or watch a video advert to gain one life back now or pay $1 to get all your lives back. Paying directly with money is not always desirable, for players or for you, and you can provide players with an intermediary currency that allows players to spend fractions of said dollar without players having to pull out their credit cards every time. Think you want to sell something for $12 in your game? Usually the store you sell something through, like Apple’s App Store, has fixed price points that are a hassle to maintain. Imagine further that if you wanted to give a discount on said something, you would have to define a new price point in real money and attach it to said something. Using an intermediary virtual currency makes this a simple task.

7.4 USER ACQUISITION AND MARKETING

All the things you build and plan are nice, but quite useless if you don’t get the players who will play your game. The days are mostly over where the old adage “Make it and they will come” holds true. You know who should be playing your game first and foremost. Once you know, you want to put this theory to the test as mentioned earlier. Your two biggest questions should be: Is the user who comes to my game a good user? With good we mean a user who will stay and play, hopefully pay, and how much spending potential does he or she have. And second, how much does it cost to find this player?

Today’s marketing specialists can tell you quite a few things about users and where they come from, as well as how expensive a user was and what marketing material was effective—along the lines of click through rate and installs. In essence, getting users requires two parts: marketing creatives and places to show them. The specialist/s can help you in knowing how to visually present your game to potential audiences in the form of an advertising and where to show said advert. How successful an advert is can mostly be measured by the specialists in how many people who saw the advert end up installing the game. This is called the funnel conversion. Now you might think that the better that percentage is, the more successful your game might be. This might be true in some cases, but in the end, remember that most likely you also want to see some revenue coming in from those users. It will all be for nothing if you end up getting a great funnel conversion but end up with users who don’t spend a dime in your game.
You want to care about two numbers when it comes to knowing if your user acquisition worked or not.

The first thing you need to know is your Cost Per Install or CPI. This number tells you how expensive it was to get a certain number of users in a specific time period. Say you spend $100 in two weeks with a specific marketing campaign and got 200 users who install the game after clicking your advert. Your CPI is 50 cents for this user cohort.

The second is the lifetime value of the users you have, the LTV. Why not just the revenue per user you might ask. Well, the revenue per user tells you the overall health of your business over time, where the LTV tells you how profitable each user you get can be. LTV is an estimated value and a true LTV is rarely known until the actual end of the cohort’s lifecycle in your game. You will, however, learn how much a group of players will spend over time and you should reflect this back to how much this group cost you to get in the first place. From there you will be able to extrapolate what future LTVs are. The longer the player stays around to play your game, and hopefully keeps buying things you offer, the higher his or her LTV is. So did you get a healthy set of users? You know by seeing the LTV is bigger than the CPI. Knowing LTV and CPI can help you and your User Acquisition (UA) and marketing team in knowing where and how to spend your marketing budget.

On top of these “paid users”—we spent money directly to bring them to our game—there are also “organic users.” The organic users are all users we get in all other ways but not by them clicking on your advert. This is the user who, for example, hears from their friends, goes to the app store and installs the game. Those users of course have a CPI of zero, as we can’t measure it. What we can try to measure is how many organic users we got for each paid user. This measure of virality is expressed as the k-factor. The bigger the number is, the better for you as you will end up getting more users from your marketing for free, which in turn can have a positive effect on your bottom line.

7.5 KPIs

So you have a game, you have an audience, you have monetization and you managed to get users. How do you now know how healthy your game is? Key performance indicators or KPIs are measurable values that can help you find out. You already learned about CPI and LTV. LTV as we said gets better the longer a user stays around. So you will want to measure a user’s
retention in your game. This tells you how long a user stays around after starting to play your game. Most users will leave your game within the first week. You also want to know the conversion rate of your users but at what point in time. Finding a balance in retention and conversion is very important. Very casual games, where users leave quickly might benefit from early conversion, especially if the expected LTV is quite low to begin with. Having low retention after a week or two might not be a huge issue as you have a profitable business. Other games, like a 4X strategy title will have quite bad early conversion and low spending overall until players really get into your game. Here you know that the majority of the income is generated maybe weeks after the player started playing. Having as high as possible retention on the long term is absolutely the key to your survival.

Those metrics deal specifically with your money business side but aren't helping you with figuring out specifics about what players actually do in your game. You will want to dig into data to understand the behavior of your players and create KPIs using events players have in your game. If you have a game where players complete levels, you will want to know the pass rate of each level to find if levels are too hard or too easy. There are infinite ways to measure things, and it is easy to try and measure everything. You won't have to: in the end, you *always* want to be able to relate anything you measure to your retention, conversion, LTV and revenue. If a measurement can't help you see how any of these KPIs could be affected, it probably is a waste of your time.

One last piece of advice on KPIs. It is easy to look at your numbers by throwing them all into a pot. This won't tell you a lot, especially when it comes down to optimizing your game. Try to group players together based on playing, spending, retention, UA patterns and so on. Find differences in the behavior and see what works and what doesn't work for a group. Can something be improved without harming another group? Testing your hypothesis is important. Be scientific about it, when you test something, use volumes of players and ensure that your results are statistically significant. Always question your numbers and avoid interpreting and inferring meaning that is not there. Brushing up on your knowledge of statistics is a very useful thing, not just when it comes down to designing games in general, but also in analyzing the business side of them. Additionally, do a qualitative analysis of your game and hear and see what players say and do.
7.6 ONBOARDING, QUALITY ASSURANCE AND PLAYER SUPPORT

When a player first comes to your game, unless it is a game in a series, most likely they know nothing about how to play your game and have, at best, an expectation of how it will work which might or might not match reality. The process of bringing your players aboard and making them feel familiar in the new surrounding is called onboarding.

A good onboarding experience teaches players how to play your game, without feeling overwhelmingly instructional, difficult or challengeless. It isn’t to despair though, as you can make an experience that will be good for the majority of your players. Easing your players into the basics is really the key here, so the most essential thing is to make your game as fun as fast as possible and that the player has a fun challenge in the first few minutes of your game. Onboarding does not end with just teaching the controls or what you might find in many games in the form of an explicit tutorial. It continues for the first few hours of playing, making sure players find their way through all the functions of the game in a structured manner. Some games do a lot of handholding and point things out very directly such as *Puzzles & Empires* and others throw you into the fray quite fast and ease you into all you need to know without you even really noticing it like *Brawl Stars*.

What works best is something you must find out and it will be different for each game, and it will have to match your audience. The better you know your audience, the easier it will be for you to get this right. Service providers such as PlaytestCloud or usertesting.com can help you find players matching your audience criteria, who play your game and record a video along with their comments with it. It is a wonderful tool in your repertoire of testing with your friends and co-workers to get some qualitative feedback. Do not underestimate the power of surveys either, which you can use not just for your game, but also during your audience and marketing research. To set up surveys, get help from professional user researchers so that you do not create questions in a way that could lead your users on and cause them to answer in possible false positives.

Quality assurance (QA) is the other side of the same coin, which helps make sure your product work as intended and helps you find all possible issues that can arise in your game. From running your game on different devices, in different languages and operating system versions to finding
the most obscure bugs and simple clarity in your game, a good QA team will throw it all at you and be nitpicky about everything. Go as far as seeing how much they might even enjoy your game. If it looks like they have a blast despite testing the same things over and over again, you can rest assured part of your game is doing just fine. It is easy to dismiss QA as just a process to find your bugs, but it can help you make sure you are making a product that will operate and run as intended when you launch or add new features later on. Keeping a solid record of issues encountered will also help you later once your game is in players’ hands.

That is when player support comes in. Player support in an ideal world does more than just help players when they have a technical issue with your game. It can be an integral part in your marketing strategy through community building and be your line to players. When players really like your game, they tend to be quite vocal, especially when something is wrong. Player support can hear and react and even help you keep your sanity when your community has a toxic element. They may be your evangelists and a big reason for some players to stick with your game, when without good player support, they might have left a long time ago. You might even find that very person among your players.

7.7 LIVE OPERATIONS: FROM TEST TO SOFT LAUNCH TO GLOBAL LAUNCH

Making games is always a struggle. There are so many moving parts and few things feel as exciting as when you open the floodgates and players start coming to play your game.

The first time you will have players coming in in droves should be during your technical launch, which should happen a few months before your soft launch, early in your production stage or at the end of your pre-production.

During the technical launch, you want to get a good volume of players to test the stability of your game service, especially if you run your game on a server—learn what happens when many players play and get a baseline of your KPIs. You most likely probably do not want to have any monetization in your game available to players at this stage, especially if you plan on taking the game down again before soft launch. This is the time to make sure your game is functional and does what you tested earlier in small volumes, and in isolated components, such as your funnel or qualitative testing for onboarding, at a much larger scale. During this time, it is still relatively easy to make bigger changes in your game when you find
things do not work, where your game economy needs a major rebalance, your onboarding experience, while working well for the people you tested with earlier, needs improvements to work with the majority of your players. You want to hopefully have a few thousand players in your game at this stage to get to that important statistical significance.

You have now completed all the key features your game needs to be fun and engaging for the longer term, have polished your experience and have ways for players to come and play and spend money. It is time to soft launch your game in selected markets. Now you test out how your game resonates with players at a really big scale that is representative of your audience and the countries your players reside in. You will learn what players like to spend money on, how much and where. Now you can optimize the experience and find out what drives players away and remedy it. You can find out what the next few big and small things you need to fix are and add features before you let the whole world see your game. You will now learn how to go about updating your game regularly and smoothly. Your KPIs will tell you some hard truths as well, and it might be that you cannot scale your user acquisition and you will not be able to make a profit. This is the last stage where you have to decide, are you able to launch your game worldwide and have a viable business for the coming months and years? For some games, this is the end, for others, it is the last stage to remove all the breaks and launch.

Time the global launch and you are done. Enjoy the money. It would be nice if it were so easy, for now the hard part of maintaining your game starts. In today’s F2P world, “just” shipping your game is not enough. Your players, unless you make a very simple hyper casual game, expect you to provide new updates, bug fixes, content and events. You should make a clear plan and develop tools that let you do that well before you launch your game in soft launch. Imagine you built an ocean liner, you now need to make sure it keeps having customers, the kitchen provides meals, new exciting ports are landed at etc. Your game is a service. Treat it as such and maintain it. Or else the next hot thing will take all your best features and your players away from you. Your customer is not the king and always right, however, he or she is valuable, and it is your job to retain said value until it is time to close doors.

Every game sooner or later, and rather later, will have to say goodbye and close down further development. Most go quietly, losing their luster and their profitability. Knowing when and how to stop is as important as starting in the first place. It is hard for everyone involved, especially
when things for you and your team have looked so promising. Stopping for the right reasons and knowing why can make this feel like a success. You might make the most fun game in your opinion, players might even love it, but producing it will cost more money than you have, getting users profitably might turn out to be impossible and, no matter what, sometimes the obstacles cannot be overcome. Realize and accept that this will happen, learn from it, speak with your fellow developers about it and be rational about it, and take it along to the next project where you will already have a better start. Mind you, this all may happen early on when you start a project or after running your game successfully for years.

There are many, many moving parts to making a successful game and many things you need to know. But you don’t need to know it all yourself in detail. This primer will hopefully serve you in knowing what topics you should research in more detail as well as getting you going on your journey down the rabbit hole. There are great resources and design authors out there such as Eric Zimmerman, Ernest Adams, Ian Schreiber, PocketGamer, Gamasutra, GDC and many more. With the keywords and basic concepts described in this short chapter, googling for more will be a breeze. Good luck!

**LUDOGRAPHY**


**REFERENCE**