

WHY IS IT DIFFICULT TO MAKE VERY GOOD VIDEO GAMES?

ESSAY - June 2019 - Marc Albinet // marcalbinet@gmail.com¹

Resumen

¿Por qué muchos jugadores no terminan los videojuegos que compran?, ¿por qué el nivel de calidad de esos videojuegos rara vez cumple con las expectativas de esos jugadores?, ¿por qué las campañas promocionales les generan un gran entusiasmo, pero el juego real una enorme decepción? Todas estas preguntas tensionan lo que se entiende como calidad en la experiencia de juego, ampliando la brecha entre lo que se promociona a través de las campañas de marketing y lo que finalmente obtienen los jugadores. Entonces, se podría señalar que es el marketing, en sí mismo, parte del problema, pues genera un simulacro de la experiencia de juego antes de que esta sea vivenciada de manera real, una suerte de promesa y simulacro embellecido. En este sentido, es de suma importancia fomentar que los diseñadores de videojuegos desarrollen la capacidad de crear experiencias de juego de calidad, es decir, que esta sea lo suficientemente cualitativa para cautivar al jugador hasta el final del juego.

El problema de la creación de videojuegos que fomenten una experiencia entretenida, memorable y significativa ha existido desde el inicio del desarrollo de estos, pues, este mismo problema, que enfrenté hace 20 años atrás, sigue siendo una dificultad que hoy en día sigo encontrado. Esta es una problemática que se repite constantemente, obstaculizando la calidad de la experiencia que se intenta compartir. Incluso hoy el proceso creativo es más complejo, puesto que los equipos de diseño, desarrollo y producción crecen constantemente, haciendo más complicado consensuar acuerdos. Por ello es necesario preguntarse ¿cuáles son estos problemas? ¿por qué se repiten? ¿qué podemos hacer para abordarlos? O, como solución mínima, ¿cómo se puede reducir su impacto?

Palabras clave

Diseño de juegos, experiencia de juego, expectativas de juego, jugabilidad, diversión, métodos racionales, UX.

Abstract

Why do players have such difficulty finishing the video games they buy? Why does the quality level of the games only very rarely meet their expectations? Why are they excited by the promotional campaigns and largely disappointed by the real game?

These questions raise the issue of the quality of the experiences provided by video games and the gap between the actual experience and the marketing promise.

If we can consider marketing as part of the problem because it embellishes the promise more than reasons, it is especially important to note a flaw in the ability of developers to provide a quality experience, i.e. a game experience that is sufficiently qualitative to retain the player in the longer term.

The problem of the ability to master creation, to manufacture and deliver an entertaining and memorable experience has been around since the beginning of video game development. I am facing the same problems today as I did twenty years ago. They are constantly repeating themselves and handicap the quality of the experience produced. They are even worst today as team grown.

What are these problems? Why are they repeating themselves? What can we do to address them? At the very least, how can we reduce its impact?

Keywords

Game design, game experience, gaming expectations, playability, fun, rational methods, UX.

¹ French Game Designer who has been creating video games since 1987 starting on his first game for Commodore 64 at Ubi Soft. Marc has held various positions as Writer, Game Designer, Game Director, Producer, Creative Director for companies such as Ubisoft, Psygnosis, Loricels, Infogrames/Atari or Disney Interactive. He has shipped more than thirty games including Assassin's Creed Unity, Just Dance, Unreal, Alone in the Dark 2, Little Big Adventure 2, Alexandra Leiderman, The Division, Assassin's Creed Origin, Rainbow 6 Siege. He is also the author of a book on video game design: "Designing a video game" FYP - 2008 and was part of Ubisoft's editorial team between 2008 and 2012. He is currently working as Game Director on Dying Light 2 for the Techland studio.

Define Quality

By defining what we consider to be a video game, we can now clearly define the notion of playful entertainment and thus extract a definition of what makes the quality of a game.

In our opinion, the game's playability is therefore the central part of the quality of the experience, because it is the centre of the fun and defines the very nature of the experience because it involves the skills of the player(s) and fulfils this fundamental motivation need (PENS motivation theory)².

It is perfectly possible to deliver a video game based solely on the game part. Tetris is a case in point. The old 8-bit machine games did not deliver a sufficient immersive experience and most of their games had to provide a pure and qualitative gaming experience to be successful.

Nevertheless, our fictional imagination was not non-existent. Despite the large pixels and lack of colour variety, the scenarios and fictional contexts of these games made our imagination work and we were able to see new worlds or medieval castles from cleverly scattered pixels.

If the pure playful part is essential to the fun, the staging is almost as important, because it provides a context for this fun and allows the player to more easily accept and integrate the gameplay which is essentially very mechanical. Of course, Tetris or Candy Crush Saga don't really use our fictional imagination, but most PC games, consoles and even today those of mobiles need it.

Thus contextualization provides a natural justification for the gameplay and prevents it from being perceived as too mechanical, making the game much more accessible and acceptable to players, especially the less experienced ones.

The importance of the player's belonging to a fictional context or social group is then essential and becomes the second pillar of the quality of a game.

Nevertheless, it is possible to have games whose playful mechanics are excellent, whose immersive context is effective, but which do not deliver the level

of quality necessary for the player to continue to play and that he considers "that he has got his money's worth".

Who does not nowadays regularly have this impression of friction which consists in not knowing what to do in the game, in ignoring how to do it or simply in not feeling comfortable with the controls whether they are those of the character (the character is heavy, slow, it "hooks", the camera does not show what is needed, etc.) or in the menus of the game too often labyrinthine. For example, how to find a side quest, where to craft that particular object, etc. "I don't understand" or "I'm lost" are probably the sensations most shared by the players, perhaps more than the pleasure of playing itself.

This problem is the notion of UX or user experience. It exists in a large number of fields not only that of software, even if the one it has seen the light of day... We are then in the notion of a user-centred experience.

In 2001, when Microsoft released its first Xbox, it also released a flagship product: "Halo: Combat Evolved". Designed and worked with the software development habits used by Microsoft. This game was a huge success, because it revolutionized the gameplay of the First Person Shooter. Microsoft is used to working with its software with a user-centred approach and it is based on the study of user capabilities and use through user testing. He uses the same working techniques for this game and deploys a team of nine "ergonomists" who work between video game designers and playtests. The result is the invention of the "scratch system", a process that slows down your sighting cursor when it is close or on the target, avoiding successive comings and goings of the cursor. This principle will be reused and improved in the future. It is now the basis for 3C systems³ in all good FPS (First Person Shooter).

This work shows an effort to reduce friction, i.e. all the small irritants during use, and thus increases playing comfort. Friction and comfort of the player. Are the two major points of the Game Feel, a fundamental subject, but yet rarely dealt with methodically in video games.

² <https://immersyve.com/white-paper-the-player-experience-of-need-satisfaction-pens-2007/>

³ The fine interaction between Character-Camera-Control is the basis for the quality of character control and the foundation of Game Feel

The Problem of Playability

1 - The lack of theoretical knowledge in Game Design

Today you can find experienced video game designers or game level designers with 3 years of experience! Some of them have just graduated from school or university and are now teaching at the highest level. This phenomenon does not exist in any other discipline, whether academic or not. It shows the poverty of our collective knowledge on the art of playful creation and in particular on Game and Level Design techniques.

The youth of the discipline leads to a false idea of the function of video game designers

Video games are very young and many of the processes and game principles have not yet been found. Let us remember that cinema appeared in 1895, that the zoom arrived in the mid-1920s, that the switch to talking took place in 1927 and that the depth of field arrived at the cinema with Orson Welles' *Citizen Kane* in 1941.

For this simple reason, Game Design techniques are still partly to be discovered and therefore cannot be known either by the people in charge, let alone by educational organizations. Especially since teachers are usually former developers, coming from an era with even fewer techniques and much more empirical and intuitive knowledge.

Because the discipline is young, few experts have enough experience to have something to pass on and even fewer of these experts are not able or willing to rationalize their empirical knowledge into work techniques, design tools and work methodologies that can be passed on. I am all the more aware of the problem as I am one of the few people who has had this approach. First in a private way, i.e. inside the studio of which I was the Design Director, then for the general public by writing and publishing a book on the subject, published in 2008 and which continues to be the reference in France⁴, finally within the editorial department of Ubisoft where I continued to develop creative techniques that allow me to perfectly control the quality of the entertainment. I passed on these

methodologies to Ubisoft's teams where I was able to measure the need: 95% average score at training sessions but also to measure how difficult it was for them to use them in a real production context. The absence of this type of technique in most development studios (the methods developed at Ubisoft have remained within the company) that comes from the youth of the field leads to a poor understanding of the role of designers.

Instead of seeing this fun expert in his home, we often see a technician able to integrate data and code using simple scripts. Of course, the ability to code and manufacture prototypes is more obvious for a video game designer, but because he must master this technical aspect, we think that technical integration and value balancing is at the heart of his expertise. Do we ask the director to know how to frame or even how to edit? of course it is a plus to know how to do it, but the essence of your work is not there, it is first of all to know how to tell a story. The job of the video game designer is to design and guide the production of the fun that players will have. And when video game designers are not confused with technical integrators, they are then mistaken for generators of new ideas. So in both cases, no real expertise is recognized. This lack of knowledge of the very nature of work is not only present among those who are just starting out, it is widespread in all development studios, except of course those with a very long history, who know and organize themselves in function. The title of Nintendo video game designer belongs to only a few, because it requires a solid methodological knowledge and a long experience of its use.

2 – The problem of the application of the creative methods in production conditions

Developing a video game is a bit like building a house. It starts with the work of an architect who meets the needs of a client or has a personal intention. He makes the plans by learning about the ground, exposure to wind, sun, view, etc. The architect's job is not just to make plans, it is only the result of his work. The core of the architect's expertise is to propose a living space that is in harmony with the identity of those who will live in it so that they have the best possible residential experience.

⁴ Albinet, Marc. 2008. *Concevoir un jeu vidéo*. Limoges: Éditions FYP.

Then, based on the plans, the site is organized under the direction of a project manager who will guarantee the manufacture of the building. Each window, each switch, each tile slab is the consequence of the architect's plan, which allows him to know its functions and constraints as well as its position inside the building. The choice of final tiles or window colours is up to the customer directly or to an interior designer. The work begins and the building will be built and delivered using known manufacturing techniques and with site meetings to synchronize the work with the mandate given by the plan and its architect.

The "I know" problem

In a video game, the architect is the designer of video games. And in an ideal world, he is supposed to deliver the plans, iterate them with the customer (business and marketing) and the prime contractor (producer) to ensure their interest and feasibility. In this case, his expertise allows him to know the impact that each element of the game will have on the fun experience. Its plan is a Game Design document that generates the production mandate.

Wonderful, all this makes sense and therefore seems to be very simple. However, it never happens like that. Why? Why?

First of all, because video game designers themselves rarely know that their job is to ensure the fun of the player by using design techniques. If they don't know it, those who work with them know it even less. I guess you don't agree with that, because everyone knows that video game developers work for fun. And yet what would you say about a musician who claims to know how to play for the pleasure of the ears and who, when he plays, shows a total ignorance of solfege and harmonic rules, producing a cacophony with sometimes some harmonious chords? You'd say he thinks he knows, but he doesn't know. That's exactly the problem with video games. Video game designers think they know, other professions also think they know what a video game designer should do, but in the end nobody knows. They are then asked to perform technical tasks thinking that expertise is the ability to use software.

When you start manipulating design techniques, you become able to demonstrate what is functional and what is not. This is not a simple opinion. And by mastering these techniques, you become able to dissect other products and understand their best practices. But since these techniques use concepts that do not come from everyday development (axioms), they are unknown to most designers. For example, the expression 'Form follows function'⁵ which is the definition of design makes it possible to direct the work of designers on the principle of functions and under no circumstances to give solutions on form. So it is not up to them to say how the character should move, but to list the actions that the player can perform through the hero. Most designers make visual descriptions of characters thinking that this is the heart of their work.

This problem of the lack of "technical" knowledge defines the vast majority of video game designers as wizard apprentices who are based on empiricism, just like a musician without solfege, a draftsman without perspective or colour theory. It is not impossible to achieve this with a huge dose of talent, but it can only affect a tiny portion of them. Working and learning the techniques are of course the best guarantee of success.

The complexity of a playful video experience increases the fragility of the quality

The complexity of the experience itself and therefore of the methods of creation and production it involves is another factor in reducing the quality of the experience produced.

Unlike a spectator experience, which is by definition linear, a player's experience is not. This contrasts the notion of traditional history with that of "player story", i.e. the history that the player makes for himself by deciding to play the proposed actions in the order he prefers. This principle is not only valid for a scene or location in the game, in which the player would have a goal to accomplish and that he could succeed with the rest and the nature of the actions he decides. It is also valid well beyond that since the players are in control of the chronology of events themselves. This leads to making it unpredictable what the player will

⁵ Definition created by Louis Henri Sullivan (1856-1924) architect, father of modernism and creator of modern skyscrapers.

do. This is a founding principle of the game in general and of the video game in particular. These are systems that are complex cobwebs of cause and effect that obey operating rules. To give a better understanding comparison, we will talk about a system in a game in the same way that we will talk about a meteorological system for example, i.e. a complex set of factors that interfere with each other and produce an infinite number of possible consequences.

Production philosophy

This very system principle shows the complexity and difficulty of predicting the result and therefore the possible quality. To control the design of these systems and their manufacture, design techniques must be used, the results of which will be guided by prototypes. Using analysis grids and prototypes, the systems and their consequences on the final experience will be controlled. Without the design tools, prototyping will only serve as a limited aid and production will start on incomplete elements. This complexity and the need for prototypes demonstrate the complex aspect of the methodology of creation with production. Video games remain a software development and in this field two main production methods are in conflict: The "Waterfall" or idea is to produce a final specification before launching the manufacturing and agile methods (Scrum) which consist in searching by manufacturing in small periods while trying to follow a very general plan. The essence of video games is to know how to use these two working methodologies because they are made up of many uncertainties at the beginning, which must be less and less important as we progress, to be almost nil when we go into production. The design work and requires confrontation with the prototype which will sometimes redirect thinking. This brings us to the question of the mandate. To be valid, the mandate must be the result of hypotheses resulting from analysis and projection techniques compared with player tests that will give the reality of the result.

Securing delivery as a brake on quality

Because manufacturing must move forward, because the project always has a delivery date and it is always the main issue, the back and forth between design and prototyping tools is systematically neglected, because 100% of producers prefer to save this time

since they do not see the immediate benefit on their production. The most avoided element is the analytical model that must be compared to the prototype. Because making the model is too abstract and involves knowledge that designers rarely have. We then prefer to focus on an empirical look at the prototype and do this quickly.

This may seem thoughtless, but I have indeed observed this phenomenon systematically on all the projects I have worked on. The producer will always choose time for quality, which can be understood since his responsibility is to guarantee delivery. But by systematically sacrificing analysis and thinking that it will catch up with quality in the end: in adjustments and tests, it eliminates any chance of excellence. You can't blame him because he doesn't know it's possible, because he doesn't know that such techniques exist (he's never seen them work). For him, the right way to do it is not to spend too much time on analysis. Especially if he has already delivered several games and is an experienced producer, nothing will change his process. And even if someone tells him about these methods and the possibility of increasing quality by using them, he will think that they are the whim of a few intellectuals too far from the reality of production.

But then what are these methods?

They are called rational methods because they are based on the idea that gameplay is based above all on the challenge, that by facing something difficult to do, the player develops his skills (those required by the game situation) which has the effect of releasing dopamine and providing him with pleasure.

Based on this principle, the game is then a system of learning and skill development in which the player feels the need to progress and face situations that are always a little more difficult until they reach their limits. This principle is valid for physical skills (dexterity, timing, precision, etc...) but also for mental skills (memory, intelligence, management, etc...) as well as for the social aspect (communication, synchronization, etc...). By identifying the skills required by the different game mechanisms, it becomes possible to guarantee their fun and progression over time. This technique involves very abstract analyses of the objectives and actions to be produced, why they are difficult and how they fit

together. By controlling them it is possible to secure the raw material of the fun, which will then guarantee the good progression of this fun in time and space of the game, as well as to adapt it specifically to the skills of each player.

By using them in conjunction with the measurement of what players are capable of doing (prototypes and playtests), we secure the production mandate and guarantee not only maximum quality but also avoid doing and redoing many parts of the game, which is of course much more expensive.

The Problem of the Ux

The problem of UX in the world of video games is, once again, the lack of knowledge of the field and this expertise, but it is also a problem in the state of mind and the way of considering creation and development. The future evolution in the field is the transition to a user-centric experience with the deployment of the tools, methods and work processes that this implies. Some studios are already partly in this perspective, but it remains very difficult, because it is always easier for a developer to make what he thinks is effective than to make the effort to understand what is effective on his players (especially when there are several profiles).

Development is not player-oriented

In an ideal world, video game designers should test their game ideas on the target audience, checking that the game they are offering is indeed interesting and fun for them. That it also corresponds to a valid and sufficient market sector to finally communicate the whole of this vision to the development team so that they understand what and why. However, it never or very rarely happens in this way. Why?

Because instead of using analysis grids to rationalize gambling actions based on the measurement of players' skills, which makes it possible to obtain quantified, rigorous and shareable benchmarks, rather than basing these analyses on motivation analysis grids, everyone prefers to do what they like in their own corner without trying to find out if it is adapted to players or aligned with the entire stakeholder chain. We prefer to do rather than understand, because the

benefits of reflection are never immediate and therefore difficult to grasp.

Start by understanding the profiles of the players to whom the game is addressed by defining target persons ('personas'), in order to connect these types of players with types of consumers, but also to define their ways of playing ('playstyles') and the type of features they will prefer. This work makes it possible, when it is done, to define the content of the game, i.e. the production mandate with the certainty that it is done for a target that we know will appreciate this content and therefore that it will be profitable. In this spirit, the work of prototypes makes it possible to verify the quality of the play elements that are the heart of the experience during game tests carried out on representative populations. The results of these tests will guide the mandate in an effective direction in terms of both quality and production.

In this same spirit, the development of each functionality involving skills, whether it is the perception, learning or action ability of players, must be systematically taken into account. Thus we will not propose a tutorial scene that asks the player to memorize more than five different pieces of information. Why? Why? Because a human's working memory stops at this number on average. Any additional information will not be assimilated and on the contrary will create pollution and decrease the results of this scene. This principle is valid for just about everything in the game that is in contact with the player: Input, interfaces, objectives, mechanisms, difficulty, etc.

To ensure synchronization between what is produced and what the player can or must do, it is necessary to know the players, but also to measure their performance throughout the production process. Game tests then become essential, the tracking elements⁶ also make it possible to collect information of different natures, but particularly interesting to correct problems. For example, the heatmaps⁷ of the places where players die make it possible to know the map of the "too hard" and thus to correct the obstacles in these places.

In a nutshell, it will be a transition from intuitive design and development oriented towards oneself or at best towards the idea of what one thinks players

⁶ Online data transfer system that allows to measure the result of actions performed by the player.

⁷ A measurement system that places all locations where an event has occurred on a map.

are, to development oriented solely towards identifying what players really are, their skills, preferences and behaviours.

Lack of knowledge of the definition of UX

As I said earlier, the notion of UX is so poorly known that it is continuously assimilated to that of UI, i.e. the design and realization of graphical interfaces within the game.

Of course, the display on the screen of any information, whether textual or graphic, is a key element of the gaming experience, but it only corresponds to a part of UX's needs. This only concerns fixed interfaces, we are not talking about dynamic indicators of gameplay integrated in 3D, the design of tutorial suites, the complexity of systems, the complexity of controls and friction generated, etc..... UX's work corresponds to the guarantee of comfort (comfort means absence of friction) of all the elements designed and produced. It is within the scope of the competencies of a normally constituted human being. Thus the progression of difficulty over time is at the heart of the work of video game designers. But the understanding of the skills in which this difficulty is embedded will be explained and constrained by UX know-how.

It should be recalled that the three pillars of the video game UX are accessibility, usability and learnability. Providing the opportunity for the player to train in a reserved area is a UX need, it has nothing to do with IU and will certainly not be in the mandates provided by video game designers if they are not influenced by UX constraints.

Unfortunately, knowledge of this process and possession of this expertise is very rare in video games. This is one of the future areas for improvement in this industry. Today, UX is done in part, by video game designers and interface artists for the rest, when it is not the producer who defines what must be done.

Conclusion

Lack of knowledge of existing techniques, lack of willingness to make the efforts to acquire them, whether specific to the field or coming from other

fields, inability to understand the long-term impacts in order to prefer less effective but immediate solutions, youth of the industry which still needs to better understand its practices, processes and tools, video games is a field whose quality is very limited compared to what it could be. The domain is still "amateur" and "intuitive", because it has been undergoing exceptional development and growth for more than thirty years, avoiding it to question itself and improve its ways of doing things.

Nevertheless, the field has opened up considerably with time and success. As it has become a major entertainment industry, new opportunities have emerged. Several university researches exist today, some veteran developers (of which I am a part) share their know-how and try to develop techniques based on their know-how (during developer conferences: GDC which are held regularly in several cities around the world but still have difficulty in proposing convincing techniques). The industry is maturing and slowly identifying this problem. Faced with an ever more aggressive entertainment competition (Netflix or social networks) whose objective is to occupy people's free time as much as possible, it will be necessary to continue to develop these methods and to spread them. It is a personal crusade that I started more than fifteen years ago and that I continue to lead. Mastering perfectly these design tools based on rationalization, I now work as a Design Doctor in the AAA studios and I plan to set up a system to communicate and learn these methods to as many people as possible. Maybe in a future article....