



Who Is at the Center?: Designing Playful Experiences by Using Player-Centered Approach

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Abstract. In this article, I examine the player-centered design philosophy and how it is suitable to create playful experiences. Many scholars and designers employ this approach to enhance the user experience by incorporating game-like characteristics into their design. By getting help from the concept of implied player, I argue that the player is not at the center, but the designers who envision how the players play their game occupy that space in the player-centered design approach. I believe the player-centered design approach is suitable for playful experience design. However, the designers must give users the freedom because, without it, the center of the design that is reserved for the player becomes their prison. Playfulness is an attitude that flourishes when the user has the freedom to express themselves and interact with the design without limitations. To restore the original purpose of the player-centered design philosophy, I get help from sandbox games that offers an open-ended experience to the players. By using the sandbox game characteristics as the starting point, I propose to make playful experiences by removing the implied user from the player-centered design and leaving the center empty so that people may have the freedom to interact playfully.

Keywords: Playful experience · Player-centered design · Implied user · Sandbox games

1 Introduction

We shape technology to assist us, help us, and take care of the things that we don't want to waste time on. We use computers for our works and daily lives, we have our smartphones with us, they are more than portable computers, they are our companions. Playfulness is the attitude that allows users to connect with the activity or object emotionally, although the designed thing is functional or goal-oriented experience [26, p. 27]. The experience that contains playful elements motivates the users more because it is not only about achieving something but having fun during the activity.

Many scholars and designers add game elements to their design to make it more playful. The resulting experience that they want to achieve is transferring play characteristics into nonplay activity, which will lead to a play-like activity but not play. Playfulness is neither the subset of play nor the weaker version of it. As a user experience designer in the gaming industry, I have witnessed many times people using

playfulness as the carrot on the stick to motivate players with the activity and to make the mundane task fun. Playfulness is not a simple design characteristic that a designer picks from games and transplant into other objects and activities to make them fun. Playfulness is an attitude towards people, objects or activities, whereas play is an activity itself. We need to understand playfulness in its terms to design playful experiences.

2 Designing Playful Experiences

Before talking about designing playful experiences, it is important to clarify what is a playful experience. The definitions of play, playfulness, and games are always messy and often insufficient. Because of this, I will describe them instead of defining them with an example, playing chess. If two players play chess, they are playing the game, but it is not possible to say whether they are playful or not. Both players may engage with the activity, yet their intentions may be not playful. If it is a tournament game, the players may focus only on winning. Or their attitude can be more playful which may lead to different player actions. For example, one of the players can start making sounds as they move the chess pieces or eat the opponent's chess piece. These actions are not necessary to play chess, but they emerge as the result of the playful attitude. The playful attitude contests and sometimes expands the boundaries of play; it sometimes adds different possibilities into the game.

Playfulness is not only an attitude to seek playthings and games to engage with, but it may also challenge the original goal and the designer. In the previous example, the chess players who have playful attitude may stop playing traditional chess at some point and start playing with the chess pieces because giving voice to the chess pieces and roleplaying is how they want to engage with chessboard instead of working towards a goal, which is winning.

History of video games may also help us to understand the similarities and differences between play and playfulness. In the 1970s, a computer was rare and expensive, which made it a valuable resource, and developing *Spacewar* on oscilloscopes was wasting that valuable computer time [7, p. 7]. However, the military who owns the tech facilities tolerated such playful engagements with computers because fooling around the technology allowed developers to find new uses of the technology [7, p. 8]. Thus, the playful attitude towards the productive device – computers - lead to the invention of early video games. In today's world, the designers similarly use playfulness; they let players explore new motivations to engage with the activity through the playfulness.

According to Arrasvuori et al. [2], Playful Experience (PLEX) framework is a tool to approach playfulness systematically as the designers create playful experiences in different fields. PLEX framework provides an exhaustive list of possible playful experiences without explaining how to design them. This framework contains 22 different categories (Table 1) that the designers can use as a control list if they want to make their design playful to elicit an emotional response from the users. Playfulness is not the goal of the design, but it enhances the product experience by contributing to aesthetic pleasure, attribution of meaning, and emotional response [2, p. 11].

Table 1. Playful experiences

Captivation	Fellowship
Challenge	Humor
Competition	Nurture
Completion	Relaxation
Control	Sensation
Cruelty	Simulation
Discovery	Submission
Eroticism	Subversion
Exploration	Suffering
Expression	Sympathy
Fantasy	Thrill

This framework is a useful checklist. For example, if someone wants to design a productivity software that also reduces the user's stress level, this designer can incorporate humor, relaxation, sympathy and even eroticism into their design to achieve this. PLEX framework makes the playful experiences that the researchers identified so far visible to create a guideline. By using the iterative design process, a designer can refine the experience until the users have the desired playful experiences. Although there is a list of categories that make the experience playful, it is ambiguous how to create an experience that encourages the user to have a playful attitude. There are several design frameworks such as user-centered, learner-centered, culture-centered, human-centered, and player-centered, and so on. All these examples are different approaches to design experiences by paying attention to the person who interacts with the design in various contexts. On the other hand, the main purpose of each design approach is the same, not designing for the technology or the designers, but the users.

2.1 Problems with the Player-Centered Design Philosophy

According to Don Norman, human-centered design is a philosophy “that puts human needs, capabilities and behavior first, then designs to accommodate those needs, capabilities, and ways of the behaving” [20, p. 8]. By using the human-centered approach, a designer minimizes this emphasis on utilitarian aspects of the experience and genuinely pay attention to the person who experiences. Human-centered design is a broad term that encompasses other design philosophies such as user-centered design, learner-centered design, and player-centered design, which narrows down the scope by paying attention to different activities; using, learning, and playing respectively.

There are several studies that the scholars who study games underline the necessity of having player-centered approach instead of user-centered philosophy because they claim it is not accurate to treat the players of games as users [4, 8, 16]. The main reason to emphasize the difference between players and users is the playability of the game,

which is different than the usability in other activities. These studies echo Kücklich's [16, p. 22] explanation of the difference between playability and usability:

While increasing the usability of a media technology usually means making its functionality as accessible as possible to the user, playability often depends on withholding certain options from the player. It is quite crucial in many games that the player does not have access to the full range of options the game offers initially, but only after the player has invested some time in the game. The playability of a game is actually increased by this strategy of deferral, because it challenges the player to spend an increased amount of time playing the game.

According to this statement, not having access to all the options is unique to games and this characteristic results in challenging activities in games, which makes people play the game. However, I believe many other designs don't present its full content to the users. For example, PEZ candy dispenser only gives one candy at a time when the user pulls the head of the object. In order to have access to all the candies, the user needs to keep using it until they get all the candies from the dispenser or they can dismantle the system to have access to the candy package directly. Similarly, a player can continue playing to have access to the full content, or they can hack the game instead of following the intended way to engage (Fig. 1).



Fig. 1. PEZ candy dispenser. Image retrieved from <https://en.wikipedia.org/wiki/Pez>, February 28, 2019.

There are two issues about this explanation.

Considering the challenge as a unique characteristic of video games that makes them playable is one of the major problems of using a player-centered approach to design games or playable experiences in current practices. I claim that people may seek challenge in non-game experiences too. For example, some viewers may enjoy movies with complex narrative structure, which challenges them to interpret the movie. As another example, if someone buys a bench press machine to their house, they expect to be challenged by the weights during their weightlifting training, instead of looking for an electric jack, which does the lifting for them.

In the examples above, a viewer's goal is to watch the movie, a player's goal is to play the game, and the weightlifter's goal is to work out, and all of them are the

combination of the interface and activity¹. Usability targets to improve the interface. On the other hand, the activity itself may not be compatible with usability heuristics. Thus, I claim human-centered design philosophy is compatible with designing games and playful experiences, which is similar to and probably the same with the player-centered design approach. In video games, a designer aims to design a game's interface (input devices such as a keyboard, mouse, and gamepad and output devices such as monitor and speakers) challenge free as much as they can. The designer's goal is to ease people's access to the content. On the other hand, the quality and type of content shape the activity, in which the user may or may not seek challenge. Because of this article's scope, I use the term the player-centered approach, even if I believe calling it the human-centered approach is correct as well.

2.2 Who Is at the Center?

In these studies, the emphasis on balancing the player's skill and the game's challenge to make the game playable also points to another problem of player-centered design philosophy. By sharing challenge as the factor that leads to playability, a designer assumes that every player seeks challenging experience in video games. On the other hand, according to the communication studies researchers, other video game motivations are pastime, entertainment, companionship, escapism, social interaction and relaxation, in addition to challenge, competition and achievement [22, 24, 25, 31, 32].

Fron et al. [9] describe that the Hegemony of Play, who consist of cisgendered heterosexual white males controls the discourses of what is a game and who plays it to normalize heteronormative and Western values. The communications studies researchers identify the dominant motivations to play video games, and I believe there are many other motivations that people seek, especially the ones that are preferred among other demographics such as women, people of color, LGBTQ, people with disabilities and other minority groups. Some scholars who study HCI also state that "games are designed to appeal to a rather narrow, already existing player demographic" [8]. The video game developers seemingly put the player at the center, but they only target young cisgendered heterosexual white male players (whether consciously or not) when they design playful experiences and video games.

This very same power structure that surrounds game technologies, game studies, and gaming communities also affect how we perceive the notion of playfulness. Instead of giving the tools and space for users to encourage them to be playful, current player-centered design practices function more like training the users to engage with the activity playfully as how the designers imagine. Playfulness is the possibility of expressing ourselves, showing who we during the activity. However, if the designers force the users to re-experience the playful bits in the designer's intended way the user

¹ Traditional HCI approach studies the interaction between human and computer as the name of the field proposes. Kaptelinin and Nardi says "people are not interacting *with* computers: they will interact with the world *through* computers" by using the activity theory [14, p. 6]. I claim we must include both the interaction with the computer and interaction with the activity to study the experience.

may choose to reject engaging with the experience, it also hinders the other possible unintended playful experiences due to the designer’s limiting attitude.

2.3 Playfulness and Transgressive Play

Based on the literary theorist Wolfgang Iser’s [12] model of “implied reader”, Espen Aarseth coined the term “implied player”, which “can be seen as a role made for the player by the game, a set of expectations that the player must fulfill for the game to ‘exercise its effect’” [1, p. 132]. Since the notion of implied player only gives insight about the game from the developers’ perspective, it is not enough to understand what players actually do. Players actively make meaning out of the game instead of deciphering it by passively consuming the content. That’s why players have the freedom to interpret video games independent from the developer’s expectations.

Similarly, I think the playful experiences suffer from the expectations set by the implied playful user. As a result of this, player-centered design approach operates as the implied player-centered design, which allows designers to pick a model user represents the designer’s expectations from the user to engage with the experience as they envision. In other words, they design for the implied user by using the implied player-centered design. Although playfulness is a resistance to the seriousness of the activity, the designers try to control the playful possibilities and funnel them into another serious system, which violates the carnivalesque nature of the playfulness. As a result of this, many playful experiences in today’s world incorporate game mechanics such as badges, achievements, and scoring systems, but not pay attention to other possibilities that may make the design more playful. In other words, although there are 22 different playful categories in PLEX framework (see Table 1), many playful designs have a challenge, competition, and completion, because narrow target demographic seeks these playful experiences.

Politics play a part in both game and playful experience design, and the designers circulate and reinforce the values of the Hegemony of Play consciously or unconsciously by using the normalized definitions of play, playful and games. Although the dominant definitions of play, playfulness, and games align with the Hegemony of Play, no one has the full power to control people’s opinions on these subject matters.

Hall [11] identifies three modes of interpretation: dominant, negotiated, and oppositional. Within the gaming culture, the developers and dominant groups determine dominant interpretations and the implied players subscribe to these interpretation strategies. According to Hall, someone needs to identify the dominant values that normalize certain interpretation strategies, to negotiate with them. Playful experience designers must identify that challenge and competition are not the experiences that everyone seeks but the normalized ones that engrained to the design heuristics to practice more genuine human-centered design philosophy.

Instead of suggesting and even forcing the users to seek challenge and competition to have a playful experience, we should let them find their purposes. Playfulness “frees us from the dictates of purpose through the carnivalesque inheritance of play” [26, p. 29]. Video game players often search for different possibilities to pursue their goals even if the designer tries to limit them. Aarseth calls these people “transgressive players,” who use the game mechanics to do things differently than what the designers

intended [1, p. 132]. As playful experience designers, we should study and learn from these rebellious user moments to understand where we fail to give freedom to our users, instead of patching the experience to prevent the activities that don't support the objective of the designer.

3 Getting Help from Sandbox Games for Playful Experience Design

Analyzing the instances of transgressive play in any genre can be fruitful for designing playful experiences. In this article, I look at sandbox games because they are open-ended; in other words, have no explicit goals assigned by the developers. That's why a player doesn't need to resist to the authority in sandbox games because of the freedom that is the result of open-ended nature of this genre. The player agency allows players to express themselves through the gameplay. In a goal-based system, it is not possible to give fully open-ended experience, but adding sandbox-like open-ended pieces may enhance the user's playful attitude. As a result of this, through playfulness, a user not only expresses themselves within the boundaries of the activity but also appropriating the open-ended pieces in the design. Because of this, I claim we can design better playful experiences incorporating sandbox game characteristics into playful experiences.

3.1 Sandbox Game Characteristics

Before implementing sandbox game characteristics into playful experiences, it is important to examine and identify the sandbox game characteristics. It is a challenging task because "sandbox is a term often used but rarely defined" [13]. Moreover, the scholars don't agree on the sandbox game characteristics. Based on the discourse analysis, I identify that three characteristics make a game sandbox: freedom in open-world, depth in game systems, and optional in-game goals.

Freedom in Open-World. The scholars emphasize the freedom in an open-world, but how they describe freedom change from person to person. Deen [6] consider sandbox games as the genre that "[the] player moves freely throughout the game world and chooses the order of the challenges." In other words, a player not only has access to the whole game world but can also determine the sequence of the events. Sergio Ocio and Jose Antonio Lopez Brugos [21, p. 70] emphasize the size of the game world of sandbox games by mentioning sandbox games have "big open full of life worlds where [the players] have a high degree of freedom to choose what they want to do to progress through the game". They imply that the size of the game world is an important factor to provide freedom to the players.

On the other hand, Jenkins [13] criticize the necessity of big game world by saying "I've used the term sandbox to refer to any game world—regardless of size and scope—that offers free-roaming, open-ended gameplay." Larger game world means more real estate that the game developers can use to add more options. That's why, scholars, developers, and players usually consider large virtual worlds a good feature to make a

sandbox game. As Jenkins mentions, designing large virtual worlds can be a development strategy to allow free-roaming in an open-ended game, but free-roaming can also be available in small-sized game worlds. Rafet Sifa, Anders Drachen, Cesar Ojeda and Christian Bauckhage supports Jenkins perspective on open-world games by emphasizing the “large degrees of freedom in player navigation, in world interaction, and narration” instead of underlining the game world size [27, p. 1].

Depth in Game Systems. Depth in sandbox game systems² is another characteristic that Jenkins mention in addition to the open-world design. Depth in-game systems allow players to use a mechanic as they wish. Consequently, this feature highlights that sandbox games allow multiple play styles based on how players engage with the game. The game systems such as building, construction, and logic design are some of the popular ones that many sandbox games have. For example, the block placement system and Redstone logic design system in *Minecraft*, and the space rocket design in *Kerbal Space Program* are good examples of such systems that are deep enough to allow players to interact with them differently. In these two examples, the type of material used, placement order, and connection between parts change the outcome each time. Different than the examples that I gave above, Jenkins considers *Metal Gear Solid*—and many stealth games in general—sandbox games [13] because the stealth games allow multiple and improvisational play styles due to depth in these game’s dynamics.

Merrick and Maher [18] argues the development strategies to make sandbox games such as *The Sims*, and *Creatures* more open-ended. According to the authors, a key issue of developing video games with open-ended environments is the design of autonomous non-player characters that can respond to unpredictable changes in the environment. I infer that an autonomous, self-sufficient gameworld makes the game less predictable, which gives more depth to the game and reduces the designer’s control over players via non-playable characters. Parallel with Merrick and Maher, Ocio and Lopez Brugos addresses this characteristic of the sandbox games by calling the games that have autonomous non-player characters as “full of life” [21, p. 1]. Thus, according to both studies, self-sufficient non-player characters in open-world is a sandbox game characteristic that provides more freedom to the players, consequently, makes the game open-ended.

Optional In-Game Goals. A player may choose their paths and use the game systems to follow their personal goals in sandbox games. As a result of this, different gameplay experiences are possible in sandbox games, and one of them is not more important than others because the game rules don’t valorize the outcomes because “there is no single, correct pathway” [29, p. 170]. In sandbox games, the player is the only decision maker that can evaluate something good or bad, and the labels the player attaches to the certain outcomes might change during play.

Maybe there is no correct pathway in sandbox games, but I argue there are desired pathways that influence player play styles. According to this perspective, a video game is a sandbox as long as the game supports multiple play styles as the result of no correct way to play. For example, Gee explains that there are in-game goals in the video games

² A game system is a group of mechanics that work in harmony.

such as *The Elder Scrolls III: Morrowind*, *Arcanum*, *The Sims*, *Grand Theft Auto*, but “players also make up their goals, based on their desires, styles, and backgrounds” [10, p. 178]. In other words, in-game goals function more like optional playable content in the game. Designing playful experiences by applying sandbox game characteristics.

Sandbox as a genre not only gives information about the level of freedom and open-endedness, but it is also the designers’ permission to the players to play transgressively because the sandbox game developers don’t give importance to how they imagine players use their mechanics as long as the players engage with the mechanic. As the transgressive play, designers can’t predict the users’ playful attitude. Sandbox games are useful to study for designing playful experiences because the designers don’t actively try to predict or control how players play the game. In other words, their implied player is someone who doesn’t rely on in-game goals and pursues their self-assigned goals by using the game’s mechanics.

I think the sandbox game characteristics that I identify don’t give information about which mechanics to incorporate into playful experiences, but it is useful to understand how to present playful bits to the user. The three sandbox characteristics, freedom in open-world, depth in game systems, and optional in-game goals can give insight on playful experience design in three ways.

Let the User Choose When to Be Playful. Playfulness is personal; we express ourselves through it, as for how we want to express. That’s why players should have the freedom of choosing when to engage with the parts that function more like toys or playthings to evoke playful attitude. The advantage of having an open-world in a game is to give players enough freedom instead of forcing them to play in a specific area to do the in-game tasks. Trying to control playfulness within the design may lead to creating minigames, instead of playthings that the user can playfully engage. If a user engages with a minigame without a playful attitude, they may resist playing the minigame. Moreover, if the designer forces the user to play the minigame, the user may perceive them as tasks and complete the minigame unwillingly, which may hurt not only that instant but the user may go defensive towards other playful pieces in the experience.

Allow Multiple Playful Characteristics. The possibilities of being playful are as important as when to be playful. Since playfulness is personal, certain playful experiences may be more appealing to someone. Instead of introducing the playful parts of the experience as the fun challenges, it is better to let the user decide what it means to them. In the PLEX framework, 22 playful experiences are identified, and the list may get longer in the future. It may not be possible to cover all 22 playful characteristics in a single playful experience, but the more is, the better.

Encourage a Playful Attitude. Similar to how the transgressive players play the game different than its intended design, the users may playfully engage with certain parts of the activity that the designer doesn’t intend to make them playful. In such cases, the players shouldn’t be discouraged by design. As long as a user engages with the experience playfully, the designer shouldn’t prevent playful behavior. If the activity doesn’t help the user to achieve their goal, the designer should improve the activity instead of getting rid of the playful bits.

4 Conclusion

I believe understanding transgressive play is crucial to design successful playful experiences, because playful experiences have their original goals, and these goals are not optional. Playfulness is the attitude to challenge the original goal and the authority who assigned the goal. Similarly, but not same, a transgressive play is rejecting the game's goal and playing for the new goal that is assigned by the player. Playfulness can lead to transgressive play if the user's playful actions lead to or inspired by a new goal that the user assigns. However, the designers should not limit the users to focus on the original task, because it is what prevents the playful attitude flourish. The designers biggest challenge is to make the goal more interesting than the playful possibilities in the experience. It may or may not speak to all the users, but such freedom will encourage playfulness in the experience. That's why sandbox games are the best examples to study and incorporate freedom into playful experiences. Thus, I propose that successful player-centered design is adding playful elements into the experience but leaving the center empty for the user instead of placing the implied user as a role model.

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