# Wrestling with Destiny: Storytelling in Perennial Games

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Abstract. "Games-as-a-service" games like League of Legends, Destiny, and Fortnite have been overlooked in terms of how their storytelling contributes to the audience's experience. This paper wants to rectify that by defining these games as storytelling experiences, by drawing on longform inspirations like sports, wrestling and serialized TV. This paper defines and describes the area of "perennial" experiences as live, ongoing narrative experiences that are perpetual, temporally continuous, and have a universal chronicle. These experiences are created through on-going interaction between the authors, the audience, and the experience itself. A case study of the game Destiny is presented to understand how these experiences tell stories over long periods of time, how players and authors interact with the game during that time, and how that experience affects the audience. Perennial experiences tell stories very slowly over real-time. This causes strange diegetic behavior where the real world affects the fictional continuously and they create and enforce myths through their own story-making and live events, which the players and audience partake in and share, making them real. Perennial games are some of the most popular games in the 2021 market, and it is therefore important to understand how they tell stories to better understand the player experience of millions of players.

**Keywords:** Perennial Games, live games, games-as-a-service, storytelling, narrative, on-going, MMOs, Destiny, diegesis, sports, wrestling

## 1 Introduction

"Games-as-a-service" [28,88] are the most popular form of games on the current market<sup>1</sup>. Games like Minecraft [67], League of Legends [81], Fortnite [41], and Destiny [25] have changed not only how games are made and distributed [39] but also how they are played [111]. They are all "on-going", with consistent

<sup>&</sup>lt;sup>1</sup> Exact player counts are difficult to ascertain because they are often company secrets unless announced, as e.g. Fortnite did [97], yet there are sources such as the Steam Charts [98] (which only shows Steam games) or the updated Wikipedia entry on most-played video games by player count https://en.wikipedia.org/wiki/List\_of\_most-played\_video\_games\_by\_player\_count. Purveying these two lists give a clear overall picture of the popularity of games-as-a-service.

updates, patches and refreshments of their content, keeping players interested and wanting to come back for more. It is proving to be a very successful business model, and part of the undescribed success of these games lie in their storytelling, their ability to tell on-going stories for and with the players. We argue that it should be considered an important part of the experience of playing them. Initially, one might assume their persistent, on-going nature renders them unfit for plotted storytelling, as they cannot accommodate individual player actions as meaningful change. In this work we instead focus on describing and analyzing these experiences as storytelling experiences for whole audiences.

MMOs (Massive Multiplayer Online) can be considered a precursor to this format. However, existing research provides few answers on how MMOs function as storytelling experiences. At the height of research into Everquest and World of Warcraft [5, 53, 75], many described MMOs as unable to tell stories in the "traditional" sense: No three act structure, no plot [6,59]. The authored stories of MMOs have not been in focus, despite plenty of plots one can get from World of Warcraft (section 4.1). Beyond games, there are many precedents for on-going storytelling. Professional wrestling [73, 105] has been telling on-going, live stories since the 80s [49], along with sports, reality TV, soap operas, long-running book and comics series, that all share common traits with these on-going games. When viewed as storytelling experiences, there are clear similarities. It can even be associated to how mythological storytelling operates more broadly. League of Legends has consistently added to its narrative world through websites, cinematics, and in-game changes [43,82], and traditional MMOs like World of Warcraft are no different. We argue that these games tell traditionally plotted stories, yet on an entirely different temporal scale than, say, Mass Effect [8].

We define these experiences as "perennial experiences": Experiences that are perpetual, temporally continuous, and has a universal chronicle. All games which are perennial experiences can be called "perennial games". The word perennial is chosen because it encapsulates the perpetuity and recurrence of these experiences: They repetitiously add new content (a new TV episode is released, a new update to a game, a new sports match is played), but it is never fully repetitious—it is always a new match, always a new patch, always a new episode. The second aspect is that it takes time for these experiences to develop and change. One update might not drastically change the status quo, but over many, the fabric of their universes slowly becomes something new. Perennial games are not a new genre of video games, in the popular understanding of genre as defined by the primary interactions (such as "Shooter" or "RPG" (role playing game)) [32,110], nor a genre of storytelling as defined in film studies, by stylistic similarities [110]. The perennial nature of a game is not defined by its gameplay, as a perennial experience is not defined by its storytelling content. Rather, it is a form of storytelling many genres and media can perform, and it is in fact often transmedic [50,85] in nature (although it does not have to be).

While perennial games have been discussed in storytelling terms [45, 59, 80, 94], this is the first time perennial experiences have been defined as a form of storytelling experience across games and not-games. This work aligns these

otherwise disparate experiences, and allows new ways to describe them. Using the case study of Destiny [25,26], we highlight how this manifests in an existing perennial game, how these stories naturally have a muddled diegesis and how they create myths. These qualities have always been present in MMOs, yet it takes significant time (as in real-world waiting time) to see it unfold. Perennial games are among the most watched and played media in the world in 2021, and is therefore of interest to the interactive storytelling community. While clearly effective for storytelling, this aspect has been woefully understudied.

# 2 Definition of Perennial Experience

Perennial experiences follow a specific set of requirements that do not refer to the specific interaction nor assert assumptions on its subject matter. These requirements are a set of functions of the temporality and universality of its narrative content. We consider sports, professional wrestling, reality TV, soap operas, Twitch Plays, long-running book- and tv-series, and comics to all be examples of perennial experiences. We consider the games World of Warcraft, League of Legends, Blaseball [102], Destiny, Magic: The Gathering [112], and Fortnite to all be examples of perennial games<sup>2</sup>. The requirements are as follows:

- Perpetuity. These experiences are perpetual. They do not have stated end or explicit final goal: League of Legends has no obvious ending in sight. New content, events, episodes, or updates can always add to the experience, and the audience can always expect more for one reason or another. They might end, as City of Heroes did in 2012 [34], but the ending is arbitrary rather than planned from the outset. (This excludes most narratives.)
- Temporal Continuity. These experiences are tied to real-world time [113] rather than experiential time [70]. The fictional space persists even when the audience is not actively engaging with it: Wrestling matches occur without you watching them, the "World" of Warcraft is there despite you being in it, Doctor Who episodes aired before you watched them. The story does not retract or repeat, it always appears in sequence and does not go backwards<sup>3</sup>. The fictional time might not flow 1:1 with the real world (though it can, in e.g. Destiny), but it is operating in a similar fashion to the real world in the sense that it does not revolve around a single person's perception—even the author's. It is always progressing forward and changing, intermingled with the time of the real world. A common signifier is how these experiences have

<sup>&</sup>lt;sup>2</sup> Referencing the earliest release date for these is inherently misleading, as these games have changed from their release state. Therefore, whenever we reference a specific example, we reference relevant version number or date-identifying information, along with supplemental material showing recorded cinematics, dialogue transcripts etc. as there is often no way of experiencing this inside the game experience today.

<sup>&</sup>lt;sup>3</sup> Spin-offs, flashbacks, reboots, or alterations of the timeline muddle this significantly. The existence of such narrative devices could signify a lack of temporal continuity, but we can still view the audience experience as linear and sequential regardless.

live, missable moments [83,109,114] where you "had to be there" [100]. (This excludes static spaces and stories that only progress when engaged with.)

- There exists a **Universal chronicle**<sup>4</sup> that is shared by all participants. While there might be audience-individual events and narratives, there is a large-scope chronicle of diegetic events that the author and entire audience has access to and can agree upon as true. (This excludes single-person games such as Dwarf Fortress [1] or table-top role playing games (TTRPGs)<sup>5</sup>.)

The experiences have further two delineations based on their representation of their fictional worlds. They have either "virtual worlds" as defined by Pearce [75] and Klastrup [53] (as persistent, inhabitable online spaces) or not:

- Shared Virtual World. There is one identifiable world (even if it is instanced on servers) that all players exist within, with shared geography they all traverse equally. Within this is experiences like Destiny [25], Second Life [58,75], EVE Online [31], and World of Warcraft [13].
- Shared Fiction. There is a shared fictional space, but it is not a virtual world—it is not traversable or inhabitable. Yet there is still a requirement of a single shared, unified idea of the fiction, that stems from the universal chronicle. Within this is experiences like Blaseball [102], League of Legends [81], sports, and Doctor Who [7].

A few edge-cases will illustrate the margins of this definition.

Sports might not seem fictional, and they are not in the sense that they are "made up". Rather, sports are fictionalised because the audience and the players create and partake in stories about and inside them. The shared fiction should be understood in the sense that there is a shared fabric of events, a common understanding of the players at stake and a shared narrative they are involved in. This is very much the case in sports.

Serialized fiction such as television or book series, like Doctor Who, bends the temporal continuity requirement significantly, as there is less direct correlation between the temporality of the fictional space and the real world. Yet, the waiting time in between episodes affects the story experience, causing continuity-esque effects: The writers may change story beats based on how the audience responds and the audience has to actively wait for the next episode. This is part of the perennial experience.

The universal chronicle requirement can, likewise, be removed for other effects. A game like "Mountain" by David OReilly [74] is an example of a "personal" perennial game. In it, the player "takes care" of a mountain where elements change over time when the player is not looking, similar to a Tamagotchi [2]. Here, each instance is unique to each player, so it is a personal

<sup>&</sup>lt;sup>4</sup> The word "chronicle" should be understood in the same sense as in Ryan's work on curated stories [84]: A chronicle is not a narrative by itself, but rather a series of events that can lead to a narrative when storified.

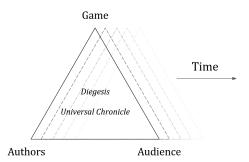
Non-game experiences are almost exclusively universal—non-universality seems to be an affordance of simulation.

chronicle despite perpetuity and temporal continuity being in full effect. Groups, similarly, can have shared chronicle of, for example, a unique TTRPG campaign.

These examples all function as perennial experiences and many lessons can be learned from them even if they bend or exclude one of the requirements. The definition of this space is only half of the story however, as any experience with perpetuity, temporal continuity, and a universal chronicle is shaped by three interdependent aspects, and this is vital to how these experiences work.

#### 3 The Trifecta of Influence

All perennial stories share a trifecta of control between an author, a game/world /system/story/space, and an audience, who all interact in real time over time. This is visualised in figure 1. Across any kind of representation of the fiction is a shared diegesis that author and audience agree upon as being "part of the world", which is wherein events can shape the universal chronicle, although the specifics of that can be and are up for negotiation at run-time (there is in fact only run-time for these experiences as a whole): When something goes wrong in the world of Destiny, it has already happened, and the authors (Bungie employees) have to fix it in real-time.



**Fig. 1.** This triangle shows the trifecta of control as shared between the author, the game or system, and the audience, as they negotiate the diegesis and universal chronicle. These then evolve concurrently over time, as shown by the figure's third dimension, which shapes the experience through the control all three exert.

The author, the game, and the audience are all progressing forward through time, during the experience. In a traditional narrative process, the author grows and changes during development, then publishes a fixed story to the audience, who then are influenced by this story moving forward. But in a perennial experience, all three continuously move forward in time, change and mold the experience as they do. Each aspect of the experience is consistently reflected by the other two. Perennial experiences embody the old saying "no one steps into the same river twice", through their very design.

As a natural consequence of this three-part interaction, the storytelling process is an ongoing social negotiation between the three parties. The creation of the universal chronicle, thus, is a social, cultural process that happens over time. Every one of the perennial experiences mentioned in this paper share this quality: They create, facilitate and strengthen communities of play [75]. It is already well known how playing MMOs is a social experience [33,68,75,77], but this sociality extends to the interactions between the audience and the authors as well. Through the audience interacting with the other two aspects and other audience members, the universal chronicle is formed (and enforced).

Note the use of the word "audience", rather than "players". The primary interaction with a perennial experience is moreso that of an audience, than as players. Sports or wrestling are useful examples of audience-bound storytelling. Sports are well known as emergent storytelling phenomenae [3] but the perennial experience of a sport is bound to the audience: They are the people who we'd say have the storytelling experience of the sport. It is not tied to the playing of an individual match, but rather the story arcs that spring forth over a season, over multiple seasons. One match might be pivotal to that story, but it is through the context understood by the audience that the experience comes to life: The players are not who the experience is for. The players actuate the experience; they are, in other words, actors of the game, and thus belong more in the game part of the trifecta.<sup>6</sup>

In video games, many people who play them are both players and audience. This is the commonly understood experience of playing a game: We enter a world and act within it, to see the outcome of our actions. We play for an audience of ourselves, and a single person thus fulfills both roles. But it is important to note that when we are talking about *playing* these experiences, it is a different action than *experiencing them as stories*, even if both can and will occur simultaneously.<sup>7</sup> Examples in section 4 will make this clear.

Being an audience does not mean they are non-interactive. While a player can play for months without story advancement and the story then can suddenly shift drastically without player input (see section 4), these experiences are still fundamentally interactive. Wrestling is a good example of a medium where the audience can have direct influence over the outcomes of matches and storylines [35, 63, 72, 90], through acting as an audience.

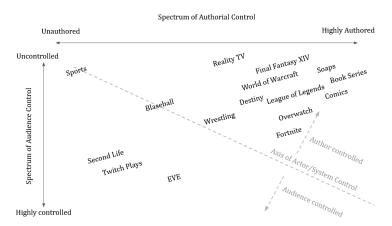
## 3.1 The Spectrum of Perennial Experiences

To illustrate the complicated relationship of control between author and audience, perennial experiences can be mapped onto a two-dimensional spectrum of control, which can be seen in figure 2. This is an example of how to think about the authorial control in perennial experiences, to try to understand this

 $<sup>^{6}</sup>$  This doesn't discount players: Play is necessary for the perennial game to function.

<sup>&</sup>lt;sup>7</sup> This split should not be understood as a person can only engage with one or the other exclusively, but rather as different lenses to understand the experience of interacting with a piece of media.

very storied question [3,15,60], as perpetuity in no way simplifies the matter. The horizontal axis shows the authorial control, with sports (very little authorial control) in one extreme and serialized fiction (much authorial control) on the other. Note here that the aspect of control mentioned is specifically over the outcome of the experience: In football, those who make the rules have little control over the outcome of a match, despite how much control they have on the rules themselves (which might influence future matches). On the other axis is the spectrum of audience control with tells us how much in control the audience has over the outcome of the experience.



**Fig. 2.** This two-dimensional spectrum shows the various degrees of control the author has (horizontal) and the audience has (vertical). While an inverse correlation that less author control means more audience control exists in many cases, it is not always the case, as highlighted by the diagonal line in the middle, which focuses on experiences where neither have complete control. Note that the specific placements of the experiences are exhibitory and should not be considered exact.

While there are experiences where clear lack of authorial control leads to a high degree of audience control, there are also experiences where neither is in full control; sports and sports-like experiences like Blaseball and wrestling being the most obvious examples. The authors and audience each have a degree of control, yet there is an element with much more to say: The emergence of the system itself. No individual player, coach, audience member or television promoter of a football match is in total control over what happens. The game is decided by many players and systems coalescing into an emergent experience [3] that is in no-one's entire control. In Blaseball, the randomness of the game gives a high degree of uncertainty for both the audience and the creators [61]. Similarly, in wrestling, neither the wrestlers or the writers or the audience are in full control of the experience [35, 63]. This is an example of how less authorial control does not necessarily lead to more audience control, and while it is most clear in sports-

likes, a degree of it happens in any perennial experience, not the least due to the perpetual, unpredictable nature of time.

## 3.2 Temporal Diegesis

Through the creation of the universal chronicle over time by the three aspects, a sense of diegesis<sup>8</sup> is formed about what is part of the narrative world and what is not. However, that is often a very blurry, shifting line. Wrestling is a great example of this. It is common knowledge that wrestling is a "fake" sport, that is, its matches are prescripted [4,63,91]. However, the real, unscripted outside world frequently impacts the storytelling of wrestling, causing its pre-written narrative to change in real-time to react to real-world events, and each participant will frequently negotiate what is a part of the storyworld and what isn't [63, 73]. Simultanously, as section 4.2 will show, the fact that the audience experiences the world in real-time causes the "virtual" events that happen in perennial stories to become real, because they happen to real people in real situations. The universal chronicle of perennial experiences runs parallel to the real world, and this causes the distinction between what is part of the storyworld and what isn't to blur and weave, at all times. The trifecta of a perennial experience will always be in a negotiation of what is part of its world, and what is not.

The case study of the video game Destiny will help to illustrate these effects in a game context and how the properties of perennial experiences lead to this kind of storytelling experience.

## 4 Case Study: Destiny

Destiny<sup>9</sup> is a widely known game that has been studied with a view on identity [30, 48], player profiling and modelling [37, 86, 92, 99], social media [29, 38, 107] player networks and communication [9, 76, 77, 87, 103, 106, 108], economics [65], competitive multiplayer [78,93], skill development [51,55,96], character creation [64,89], archaeology [40,79], and visuals [57,66,101], yet, on its story has only been said it was poorly received at launch [14]. Since then, Destiny has turned into a quintessential perennial game. The former Game Director for Destiny, Luke Smith, defined Destiny as an "Action MMO in a single, evolving world" [20], and while the genre itself doesn't matter to its perennial status, the notion of a "single, evolving world" is telling. It is perpetual and on-going, and its temporal state is 1:1 with the real world: 1 day in our world is 1 day in the Destiny fiction; events that happened a year ago, happened a year ago in both <sup>10</sup>. To understand

<sup>&</sup>lt;sup>8</sup> Diegesis is here understood in the terms from Kleinman et al. [54]

<sup>&</sup>lt;sup>9</sup> We discuss Destiny [25] and Destiny 2 [26] as a single franchise and universe. The story is a direct continuation, and they exist in the same narrative world, so there is little reason to distinguish between them, other than distribution.

<sup>&</sup>lt;sup>10</sup> This is evident through a range of dialogue and interactions [36,47], for example a character referring to the Traveller coming alive "a year ago", in 2018, referencing an event that happened at the end of the Red War, in 2017 [47].

how the universal chronicle in Destiny is formed, we need to understand how the game tells its stories.

Destiny's position in the spectrum of control shows how it is a perennial experience with quite heavy author control. This authorial power is exercised in several ways. Destiny employs well-trodden avenues from narrative video games, like dialogue and cut-scenes and scripted missions—yet often only for yearly expansions and pivotal moments—combined with depictions of the world through "lore cards", item descriptions, and embedded text, which are often accounts of happenings in the world by fictional characters, either current or historical. However, the assembly of these narratives into a sensible chronicle is, for the most part, left to the players, such as when the lorebook "Truth to Power", released to the players over months, yet was slowly revealed to be full of lies [19,26, Patch 2.0.2.1 and onwards. The players are also given the task of actuating and propulsing many of the story's agendas, such as when, during the "Forsaken" expansion, the area of the "Dreaming City" became cursed through a spell triggered by the players slaying a dragon. This occurred in September 2018, and is now a historical event (the city is, as of this writing, still cursed) [26, 46, 71, Patch 2.0.2.1 and onwards]. This is the primary way Destiny creates its universal chronicle: Through authored events actuated and enforced by players. However, sometimes players cause events to feed back into the world such as the infamous "Loot Cave" [25, 44, Original release], a cave of endlessly spawning enemies players were using to get equipment, which the developers then had to disable. However, the Loot Cave showed up later in Destiny 2 in 2020 as an empty cave full of corpses [26, 42, Beyond Light, Patch 3.0.0.1]. This is an example of an unintended behaviour in the game affecting player behaviour, and then feeding back to the authors to support the universal chronicle of Destiny. By reimplementing the cave, the developers are telling the players that the endless shooting into a cave that happened in 2014 was in fact real, echoing how every event expands Destiny's world and moves it forward, regardless who or what caused it.

Seeing a moment of gameplay of Destiny will not reveal any of this. At its gameplay core, a player in Destiny shoots aliens. While some parts of the storytelling is front and center, much of it can be entirely ignored, and is not required to play the game successfully. Here, the split player/audience is helpful. A player of Destiny is interacting with the gameplay systems, whereas the audience for the perennial game of Destiny is experiencing the storytelling. For many players, this happens concurrently, as it is part of playing for them to experience the story, read the lore cards and learn about the fictional world. Yet, you could play without paying attention to the story or the reverse; read lore cards on a website (like https://www.ishtar-collective.net/) and watch lore recaps by "My Name is Byf" on YouTube [27] to experience the story without participating in it. To what extent this happens in reality is out of the scope of this paper, yet it can still deductively and anecdotally be understood as a possible way to experience these stories. Furthermore, a player joining later and learning about previous events other players did in the space, can be said to have a pure audience-relation to those events, since they did not participate in them.

### 4.1 The Speed of Storytelling

Destiny, for our purposes, is an MMO, despite its shooter trappings. It has a consistent, inhabitable virtual world, rather than a fragmented fiction. MMOs were, by Bartle and others, not seen as games with traditional storytelling potential: "...virtual worlds do not have, nor ever can they have, narrative in the conventional sense. They're places. Players can act out narratives of their own within them, but the virtual worlds can't impose a three-act structure or anything like it." [6, 52, 59]. To contrast, here is a story from the universal chronicle of Destiny. In 2017, early Destiny 2, Mithrax [17] was nothing more than an unnamed NPC of an enemy faction, who was surprisingly not agressive towards us, the players [16], but over the years he has slowly revealed his identity and intentions, turning him from a rogue ally [21], to an insubordinate Fallen helping us overthrow a new tyrant [23], to recently, where he has fully allied with the players, and been given asylum in a part of the human city [24]. We hope this example illustrates how the previous notion is wrong. The story of Mithrax is a quite conventional story of learning to trust an unexpected ally; it just took 3.5 years to unfold. To take another example, we today have the power of seeing all the changes that happened to the "World" of Warcraft in the 17 years since its inception, and it is no small story. Kings (plural) have died [11–13, Legion, Patch 3.3.0]. Entire continents upheaved [10,13, Cataclysm]. Ancient trees burned to the ground [13,62, Patch 8.0.1]. This was not something a player could experience in 2004, when the game released. This highlights a crucial property of perennial storytelling: It is *slow*. Spending mere hours or days with any perennial experience—even "long" hours by traditional game standards—will not reveal its true nature, and it is therefore vital to let them take their time: It is only over time their worlds develop, which is how the storytelling happens. This is what viewing games as perennial experiences gives us: We can see that what was previously considered a static world in snapshots has rather obvious parallels with experiences like wrestling, sports, or serialized television, and there are important lessons from these we can draw.

### 4.2 Diegesis and Myth

One of those lessons is in how perennial games work diegetically. The pace and temporal continuity of Destiny causes its world to flow interchangeably in and out of diegesis with the real world, as its events are forever tied to real-world events—just as the real world has changed over the last 3 years, so has the world of Destiny. Yet, it gets much weirder. You could (until recently [26, Beyond Light, Patch 3.0]) go back and re-experience The Red War from 2017, in a motion that simulates re-watching an old wrestling or sports match for nostalgia or historical reverence, as it, fictionally, only occurred once. Likewise, as in most online games, many missions can be repeated ad nauseum for rewards, without explanation for how the enemies reappear (with some rare exceptions, where respawning is actually fictionalised within the world of Destiny [18], making the instances where it is not even stranger). Destiny's temporality also causes its

fiction to be impacted by the real world: Its 2020 expansion got delayed by two months because of the Covid-19 pandemic, causing the entire fiction of Destiny to "wait" until it was ready, with no diegetic explanation. Another, recent example is how the official Twitter account of the developer Bungie got "overtaken" by a fictional character from the world of Destiny, and spoke as if she existed in the real world [104]. Note how this is similar to wrestling and other long-form transmedia storytelling: The specific examples of how the diegesis breaks is different but it is still a fundamental aspect that the dual-diegetic elements arise because of the perennial nature—specifically the temporal continuity and universal chronicle—which causes anything that isn't temporally continuous or part of the universal chronicle to be inherently odd. However, the fiction-breaking implications of respawning villains and reccuring events are not necessarily any diegetically stranger than the incorporation of real-life movies into the fiction of wrestling [73, Monday Night Raw, November 24, 2008]. And in both, the audience does not seem to care. This is evident purely through the popularity of these experiences: If diegetic breaks like these were enough to make the storytelling experience fall apart, they wouldn't be as consistently popular and well regarded by their fans as they are. This diegetic power is also in part because of the inherent affordances perennial games have to create myths about themselves, through continuity and universality.

The pseudo-historical nature of these games cause a strange effect to happen upon the veracity of their events. They are still undoubtedly fictional, yet there is something true about them. To understand what we mean, here is an example of an event that happened in Destiny: We shot down the Almighty<sup>11</sup> [22]. This is true. It did happen. Every player (first author included) who was part of this can attest to the fact that it happened. Therefore, while the world is fictional, as Krzywinska said, "we nonetheless do "real" things in that world" [56]. This statement is different from most narrative events as it is not an individual experience: It didn't happen separately to each person—yes, each player had their unique perspective on the event, but the event itself is part of the universal chronicle: Every player who played in the seasonal event helped gather the required resources, and every player who was in Destiny at 10 AM PST on June 6th, 2020 saw the Almighty explode in the sky [22]. And any player who was not can only hear the story of it. This is how perennial games become historical; become mythological: They create events which become myth. The destruction of the Almighty, the fall of the moon "Dalamud" in Final Fantasy XIV [69,95, Pre-patch 2.0 and transition to A Realm Reborn, the black hole in Fortnite [41, 109, Oct 13-15, 2019]. the opening of the gates of Ahn-Qiraj [13,83,114, Patch 1.9.0] are all examples of the most mythological of these types of events: They were big, earth-shattering (literally) events that changed the fabric of their universes. They are foundational myths upon which their universal chronicles stand. These myths are kept alive through records and retellings and become myths through player action.

Furthermore, to Krzywinska [56], the repetition of quests, traditionally thought as a negative for storytelling, makes perfect sense mythologically, as traditional

<sup>&</sup>lt;sup>11</sup> A space station on a collision course with Earth.

myths were repeated, battles were fought over and over again, stories were told and retold. Understanding these worlds as mythological, rather than factual or logical, makes their diegetically and temporally strange occurrences perceivable as storyable, too. Note here that the world is not a "myth" in itself, as it exists, but rather it functions mythologically, and is able to present myth.

## 5 Conclusion

This paper has described and defined the "perennial game", and above it, the "perennial experience" as an experience that is perpetual, temporally continuous, and has a universal chronicle, with either a shared fiction or a shared world. Each perennial game exists in relation and negotiation with the authors, the game itself, and the audience, with players directly interacting with the game, whereas the audience (who can and do overlap with the players) experiences it. Perennial games exists within the larger scope of perennial experiences, and the commonalities between them make comparisons useful. A spectrum of experiences was presented, showing how various examples of this form mapped onto authorial and audience control. Understanding all of these experiences as perennial opens the possibility for us to draw teachings from wrestling, sports, Reality TV, etc. into video games, as the storytelling findings they have from their decades of run-time could be useful for these types of games.

A case study of Destiny was presented as an example of how perennial games tell perennial stories over long periods of time. It shows itself through lasting change in the world, and through social player engagement within it. Perennial worlds or fictions become mythological through evocative and detailed histories and mythologically functioning events. The worlds and stories are both real and not-real, as they fluently flux into and out of reality, through their mimicry of (and existence within) reality's time.

Perennial games have truly exploded within the last 10 years, so there is a much broader wealth of experiences to analyse and study than ever before. They span the most popular games on the planet right now, and they show little sign of slowing down. In this paper we outline their definition to create a common ground upon which we can begin to disseminate and discuss the possibilities and pitfalls of these games, by showing how their experiences echo other forms of media. There are still many questions to be explored within this form both in terms of how they are experienced (what is the effect of real-time and constant (re)negotiation of the story space for the audience? How much does time affect the experience?) and how they are made (how to continue to develop new content for an experienced audience, while also remaining accessible to newcomers?).

The popularity of these games have demonstrated the power of perenial storytelling experiences, and are therefore of inherent interest to the interactive storytelling research community. This paper presents a first step in the direction of trying to wrestle with this form of games, to help answer the questions of what they are, how they are experienced, and what we can do with them.

### References

- 1. Adams, T., Adams, Z.: Dwarf fortress (2006)
- 2. Akihiro Yokoi (WiZ), A.M.B.: Tamagotchi (1996)
- 3. Aylett, R.: Narrative in virtual environments-towards emergent narrative. In: Proceedings of the AAAI fall symposium on narrative intelligence. pp. 83–86 (1999)
- 4. Barthes, R.: The world of wrestling, chap. 2, pp. 23–33. Duke University Press (1972)
- 5. Bartle, R.: Hearts, clubs, diamonds, spades: Players who suit muds. Journal of MUD research 1(1), 19 (1996), http://www.mud.co.uk/richard/hcds.htm
- 6. Bartle, R.A.: Designing virtual worlds. New Riders, 201 West 103rd Street, Indianapolis (2004)
- 7. BBC, Newman, S., Webber, C.E., Wilson, D.: Doctor Who. Television Series on BBC. (1963–Now)
- 8. BioWare: Mass effect (2007)
- Birk, M.V., Buttlar, B., Bowey, J.T., Poeller, S., Thomson, S.C., Baumann, N., Mandryk, R.L.: The effects of social exclusion on play experience and hostile cognitions in digital games. In: Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems. p. 3007–3019. CHI '16, Association for Computing Machinery, New York, NY, USA (2016). https://doi.org/10.1145/2858036.2858061, https://doi-org.oca.ucsc.edu/10.1145/2858036.2858061
- 10. Blizzard: World of warcraft patch notes: Patch 4.0.3a: The shattering of azeroth (2010), https://worldofwarcraft.com/en-us/news/1214741/patch-403a-the-shattering-of-azeroth-now-live
- 11. Blizzard: Fall of the lich king ending (youtube video) (2011), https://www.youtube.com/watch?v=qAIrj\_Vqdfc Accessed January 17, 2021
- 12. Blizzard: Death of varian wrynn- world of warcraft: Legion (youtube video) (2016), accessed on YouTube "Tom's Hardware": https://www.youtube.com/watch?v=T9Z3eLEpxQ8. January 17, 2021
- 13. Blizzard Entertainment Ltd.: World of warcraft (2004)
- Bowey, J.T., Mandryk, R.L.: Those are not the stories you are looking for: Using text prototypes to evaluate game narratives early. In: Proceedings of the Annual Symposium on Computer-Human Interaction in Play. p. 265–276. CHI PLAY '17, Association for Computing Machinery, New York, NY, USA (2017). https://doi.org/10.1145/3116595.3116636, https://doi-org.oca.ucsc.edu/10.1145/3116595.3116636
- 15. Bruni, L.E., Baceviciute, S.: Narrative intelligibility and closure in interactive systems. In: 6th International Conference on Interactive Digital Storytelling. pp. 13–24. Springer International Publishing, Istanbul, Turkey (2013)
- 16. Bungie: "chances and choices: Enemy of my enemy". from destiny 2 original release (no longer playable as of beyond light (november 2020). Destiny 2 Story Mission. Enemy Captain does not fight the player. Video and transcript can be found at https://www.ishtar-collective.net/transcripts/quest-chances-and-choices-enemy-of-my-enemy#mithrax by Isthar Collective. Accessed June 17th, 2021. (2017)
- 17. Bungie: Mithrax (Misraaks). Non-playable character in Destiny 2. See https://www.ishtar-collective.net/categories/mithrax by Isthar Collective for overview. Accessed 17th of June, 2021. (2017–2021)

- 18. Bungie: Dialogue from destiny 2 strike: The hollowed lair (added in the forsaken expansion, 2018). Replayable Strike Mission in Destiny 2. Dialogue Transcripts available at https://commons.ishtar-collective.net/t/the-hollowed-lair-strike/2106, by Isthar Commons. Youtube video of relevant dialogue at https://www.youtube.com/watch?v=rShQFTvPeBw&list=PLS2hBTtCDufSzVXI2EJMcP4--BCSACYuy&index=17, posted by Destiny Lore Vault. Both urls accessed 16th of June, 2021. (2018)
- 19. Bungie: Truth to power (2018), lorebook from Destiny 2, hosted on https://www.ishtar-collective.net/categories/book-truth-to-power
- 20. Bungie: Bungie vidoc the moon and beyond (2019), https://www.youtube.com/watch?v=mEvVKCKdtfw
- 21. Bungie: "zero hour". from destiny 2's "season of the drifter", may 2019 (no longer playable as of beyond light (2020). Destiny 2 Repeatable Story mission. Mithrax is passive NPC who starts the mission, and shows up during to help the player. Video and transcript can be found at https://www.ishtar-collective.net/transcripts/quest-fallen-transponder-and-zero-hour-outbreak-perfected by Isthar Collective. Accessed 17th of June 2021. (2019)
- 22. Bungie: The crash of the almighty. Live event inside Destiny 2, 10 AM PDT, June 6th, 2020. First author can report being present at the event. Second-hand video can be seen at https://www.youtube.com/playlist?list=PLS2hBTtCDufSxtSjyvzjtXIGOPL5VigE- Article about the event can be seen at https://www.polygon.com/2020/6/5/21279660/destiny-2-almighty-event-tower-damage-emblem-seraphs-wings-crash-date-time Both urls accessed 16th of June, 2021 (2020)
- 23. Bungie: Quest: Evacuation. Story mission in Destiny 2: Beyond Light (2020). Player helps evacuate skiff with refugees to Mithrax's "House of Light". Transcript and video can be seen at https://www.ishtar-collective.net/transcripts/quest-evacuation-beyond-light by Isthar Collective. Accessed June 17th, 2021. (2020)
- 24. Bungie: The lost splicer. Opening story mission in Destiny 2: Season of the Splicer (2021). Mithrax is now a fully voiced and singular character. Videos can be seen at https://www.youtube.com/watch?v=ty9nRvTE26A&list=PLS2hBTtCDufQgZAAvRPamiMCkJ-r\_Pef3&index=2 and https://www.youtube.com/watch?v=ZiteIeg3riY&list=PLS2hBTtCDufQgZAAvRPamiMCkJ-r\_Pef3&index=3, by Destiny Lore Vault. Accessed 17th of June, 2021. (2021)
- 25. Bungie and Activision: Destiny (2014)
- 26. Bungie and Activision: Destiny 2 (2017),of 2019, with tivision is not affiliated Destiny (https://kotaku.com/ bungie-splits-with-activision-1831651740)
- 27. name is Byf, M.: Youtube channel: "my name is byf" (2014-Now), https://www.youtube.com/c/MynameisByf/videos
- 28. Cai, W., Chen, M., Leung, V.C.: Toward gaming as a service. IEEE Internet Computing 18(3), 12–18 (2014)
- 29. Canossa, A., Azadvar, A., Harteveld, C., Drachen, A., Deterding, S.: Influencers in Multiplayer Online Shooters: Evidence of Social Contagion in Playtime and Social Play, p. 1–12. Association for Computing Machinery, New York, NY, USA (2019), https://doi-org.oca.ucsc.edu/10.1145/3290605.3300489
- 30. Carroll, A.E.: Identity within destiny: Virtual selves in virtual worlds. Master's thesis, University of Colorado Denver (2016)

- 31. CCP Games: Eve Online (2008)
- 32. Clearwater, D.: What defines video game genre? thinking about genre study after the great divide. Loading... **5**(8), 29–49 (2011)
- 33. Cole, H., Griffiths, M.D.: Social interactions in massively multiplayer online roleplaying gamers. Cyberpsychology & behavior **10**(4), 575–583 (2007)
- 34. Cryptic Studios: City of heroes (2004)
- 35. De Garis, L.: The Logic of Professional Wrestling, chap. 9, pp. 192–213. Duke University Press (2005)
- 36. dobby\_rams: Dreaming city dialogue reddit post (2018), https://www.reddit.com/r/DestinyLore/comments/9z0gtk/dreaming\_city\_dialogue/. Accessed on the 19th of January 2021
- 37. Drachen, A., Green, J., Gray, C., Harik, E., Lu, P., Sifa, R., Klabjan, D.: Guns and guardians: Comparative cluster analysis and behavioral profiling in destiny. In: 2016 IEEE Conference on Computational Intelligence and Games (CIG). pp. 1–8. IEEE (2016)
- 38. Drescher, C., Wallner, G., Kriglstein, S., Sifa, R., Drachen, A., Pohl, M.: What moves players? visual data exploration of twitter and gameplay data. In: Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. p. 1–13. CHI '18, Association for Computing Machinery, New York, NY, USA (2018). https://doi.org/10.1145/3173574.3174134, https://doi-org.oca.ucsc.edu/10.1145/3173574.3174134
- Dubois, L.E., Weststar, J.: Games-as-a-service: Conflicted identities on the new front-line of video game development. New Media & Society p. 1461444821995815 (2021)
- Emery, K.M., Reinhard, A.: Trading shovels for controllers: A brief exploration of the portrayal of archaeology in video games. Public Archaeology 14(2), 137–149 (2015). https://doi.org/10.1080/14655187.2015.1112693, https://doi.org/10.1080/14655187.2015.1112693
- 41. Epic Games: Fortnite (2017)
- 42. Gach, E.: They brought back destiny's loot but the loot. Kotaku article. https://kotaku.com/ not they-brought-back-the-loot-cave-but-not-the-loot-1845638914. Accessed on 30th of April 2021 (2020)
- 43. Gilliam, R.: The history of the league of legends (2018), https://www.riftherald.com/2018/4/13/17231028/history-lol-league-of-legends-institute-of-war-summoners. Accessed on the 17th of January 2021
- 44. Good, O.S.: Here's how to find destiny's 'loot cave' and plunder it for endless riches. Polygon article. https://www.polygon.com/2014/9/21/6760715/destiny-loot-cave-engrams-farming. Accessed on the 30th of April 2021. (2014)
- 45. Gursoy, A.: "we're excited to chart this unknown territory together": Storytelling strategies in patch notes documents. In: Proceedings of DiGRA 2020 (2020)
- 46. Isthar Collective: Ishtar collective's last wish cinematic transcript. Transcript of in-game cinematic displayed upon the first canonical completion of the "Last Wish" Raid, part of the Forsaken campaign https://www.ishtar-collective.net/transcripts/last-wish-cinematic?highlight=curse. Accessed on the 19th of January 2021 (2019)
- 47. Isthar Collective: Ishtar collective's visions of light transcript. Transcript of in-game mission during the original Forsaken campaign. The important

- quote is "Ghost: The Traveler's been alive for a year. Why has it waited so long to speak to us?" https://www.ishtar-collective.net/transcripts/visions-of-light. Accessed on the 19th of January 2021 (2019)
- 48. Jedruszczak, B.: Identity Creation and World-Building Through Discourse in Video Game Narratives. Master's thesis, Syracuse University (2016)
- 49. Jenkins, H.: 'Never Trust a Snake': WWF Wrestling as Masculine Melodrama, chap. 3, pp. 33–67. Duke University Press (2005 (1997))
- 50. Jenkins, H.: Convergence culture. new york university press (2006)
- 51. Joshi, R., Gupta, V., Li, X., Cui, Y., Wang, Z., Ravari, Y.N., Klabjan, D., Sifa, R., Parsaeian, A., Drachen, A., Demediuk, S.: A team based player versus player recommender systems framework for player improvement. In: Proceedings of the Australasian Computer Science Week Multiconference. ACSW 2019, Association for Computing Machinery, New York, NY, USA (2019). https://doi.org/10.1145/3290688.3290750, https://doi.org/10.1145/3290688.3290750
- 52. Karavatos, A.: "WHAT IS YOUR DPS, HERO?": Ludonarrative dissonance and player perception of story and mechanics in MMORPGs. Master's thesis, University of Skövde (2017)
- 53. Klastrup, L.: A poetics of virtual worlds. In: Digital Arts and Culture. RMIT University (2003)
- 54. Kleinman, E., Carstensdottir, E., El-Nasr, M.S.: A model for analyzing diegesis in digital narrative games. In: International Conference on Interactive Digital Storytelling. pp. 8–21. Springer International Publishing (2019)
- 55. Kokkinakis, A.V., Cowling, P.I., Drachen, A., Wade, A.R.: Exploring the relationship between video game expertise and fluid intelligence. PLOS ONE 12(11), 1-15 (11 2017). https://doi.org/10.1371/journal.pone.0186621, https://doi.org/10.1371/journal.pone.0186621
- Krzywinska, T.: Blood scythes, festivals, quests, and backstories: World creation and rhetorics of myth in world of warcraft. Games and Culture 1(4), 383–396 (2006)
- 57. Lee, Y., Armstrong, T., Spataro, J.: Destiny character-animation system and lessons learned (full text not available). In: ACM SIGGRAPH 2014 Courses. SIGGRAPH '14, Association for Computing Machinery, New York, NY, USA (2014). https://doi.org/10.1145/2614028.2615458, https://doi-org.oca.ucsc.edu/10.1145/2614028.2615458
- 58. Linden Lab: Second Life (2003)
- 59. Lohmann, B.: Storytelling in Massively Multiplayer Online Games. Master's thesis, IT University of Copenhagen (2008)
- 60. Louchart, S., Aylett, R.: Solving the narrative paradox in ves-lessons from rpgs. In: International workshop on intelligent virtual agents. pp. 244–248. Springer (2003)
- 61. Manning, C., Ashwell, S.K.: The gods play dice: Procedural content in blaseball. Medium Article https://medium.com/the-game-bland/the-gods-play-dice-procedural-content-in-blaseball-a9487dec0310 Accessed 16th of June, 2021. (2021)
- 62. Marshall, C.: World of warcraft's latest story campaign has ignited the fanbase (2018), https://www.polygon.com/2018/8/1/17639398/world-of-warcraft-battle-for-azeroth-sylvanas-story-war-thorns-campaign
- 63. Mazer, S.: 'Real'Wrestling/'Real'Life, chap. 4, pp. 67–88. Duke University Press (2005)

- 64. McArthur, V., Teather, R.J., Jenson, J.: The avatar affordances framework: Mapping affordances and design trends in character creation interfaces. In: Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play. p. 231–240. CHI PLAY '15, Association for Computing Machinery, New York, NY, USA (2015). https://doi.org/10.1145/2793107.2793121, https://doi-org.oca.ucsc.edu/10.1145/2793107.2793121
- Miller, W.: The role of spontaneous order and choice in video games: A case study of destiny. Available at SSRN 2953791 (2016)
- 66. Misztal, S., Carbonell, G., Schild, J.: Visual delegates enhancing player perception by visually delegating player character sensation. In: Proceedings of the Annual Symposium on Computer-Human Interaction in Play. p. 386–399. CHI PLAY '20, Association for Computing Machinery, New York, NY, USA (2020). https://doi.org/10.1145/3410404.3414238, https://doi-org.oca.ucsc.edu/10.1145/3410404.3414238
- 67. Mojang: Minecraft (2011)
- 68. Nardi, B., Harris, J.: Strangers and friends: Collaborative play in world of warcraft. In: Proceedings of the 2006 20th anniversary conference on Computer supported cooperative work. pp. 149–158 (2006)
- 69. Nelva, G.: The story of how final fantasy xiv players marched together to the battle that ended the game (2019), https://twinfinite.net/2019/08/final-fantasy-xiv-anniversary-march/ Accessed 17 January, 2021
- 70. Nitsche, M.: Mapping time in video games. In: DiGRA Conference (2007)
- 71. O'Connor, A.: Destiny 2's groundhog day curse is a neat touch that's easy to miss. Rock Paper Shotgun (2019), https://www.rockpapershotgun.com/2019/01/31/destiny-2-the-dreaming-city-curse-cycle/. Accessed on the 19th of January 2021
- 72. Oglesby, B.: Daniel Bryan & The Negotiation of Kayfabe in Professional Wrestling. Master's thesis, University of South Florida (2017)
- 73. Oliva, C., Calleja, G.: Fake rules, real fiction: Professional wrestling and videogames. DiGRA (2009)
- 74. OReilly, D.: Mountain (2014)
- 75. Pearce, C.: Communities of play: Emergent cultures in multiplayer games and virtual worlds. MIT press (2011)
- 76. Perry, R., Drachen, A., Kearney, A., Kriglstein, S., Nacke, L.E., Sifa, R., Wallner, G., Johnson, D.: Online-only friends, real-life friends or strangers? differential associations with passion and social capital in video game play. Computers in Human Behavior 79, 202—210 (2018). https://doi.org/https://doi.org/10.1016/j.chb.2017.10.032, https://www.sciencedirect.com/science/article/pii/S0747563217306052
- 77. Pirker, J., Rattinger, A., Drachen, A., Sifa, R.: Analyzing player networks in destiny. Entertainment Computing 25, 71–83 (2018)
- 78. Ravari, Y.N., Spronck, P., Sifa, R., Drachen, A.: Predicting victory in a hybrid online competitive game: The case of destiny. In: Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment. vol. 13 (2017)
- 79. Reinhard, A.: Archaeogaming: An introduction to archaeology in and of video games. Berghahn Books (2018)
- Rimington, E., Blount, T.: Lore v. representation: narrative communication of power with regard to gender in league of legends. In: CEUR Workshop Proceedings. vol. 1628, pp. 1–5 (2016)

- 81. Riot Games: League of Legends (2009)
- 82. Riot Games: League of legends universe website (2021), accessed on https://universe.leagueoflegends.com/en\_US/, latest on January 17, 2021
- 83. Rousseau, S.: 'world of warcraft' recreates one of its biggest events, including broken servers (2020), https://www.vice.com/en/article/ep4wqj/world-of-warcraft-recreates-one-of-its-biggest-events-including-broken-servers Accessed 17 January, 2021
- 84. Ryan, J.: Curating Simulated Storyworlds. Ph.D. thesis, UC Santa Cruz (2018)
- 85. Ryan, M.L.: Transmedia storytelling: Industry buzzword or new narrative experience? Storyworlds: A journal of narrative studies **7**(2), 1–19 (2015)
- 86. Schaekermann, M., Ribeiro, G., Wallner, G., Kriglstein, S., Johnson, D., Drachen, A., Sifa, R., Nacke, L.E.: Curiously motivated: Profiling curiosity with self-reports and behaviour metrics in the game "destiny". In: Proceedings of the Annual Symposium on Computer-Human Interaction in Play. p. 143–156. CHI PLAY '17, Association for Computing Machinery, New York, NY, USA (2017). https://doi.org/10.1145/3116595.3116603, https://doi-org.oca.ucsc.edu/10.1145/3116595.3116603
- 87. Schiller, M.H., Wallner, G., Schinnerl, C., Calvo, A.M., Pirker, J., Sifa, R., Drachen, A.: Inside the group: Investigating social structures in player groups and their influence on activity. IEEE Transactions on Games 11(4), 416–425 (2018)
- 88. Schreier, J.: Top video game companies won't stop 'games about asservice' (2017),https://kotaku.com/ a top-video-game-companies-wont-stop-talking-about-games-1795663927 Accessed on the 17th of January 2021
- Schwind, V., Wolf, K., Henze, N., Korn, O.: Determining the characteristics of preferred virtual faces using an avatar generator. In: Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play. p. 221–230. CHI PLAY '15, Association for Computing Machinery, New York, NY, USA (2015). https://doi.org/10.1145/2793107.2793116, https://doi-org.oca.ucsc.edu/10. 1145/2793107.2793116
- 90. Sciarretta, E.: The use of social media as part of a transmedia storytelling strategy in wwe's professional wrestling. In: International Conference on Human-Computer Interaction. pp. 556–570. Springer International Publishing (2019)
- 91. Sehmby, D.S.: Professional wrestling, whooo!: a cultural con, an athletic dramatic narrative, and a haven for rebel heroes. Master's thesis, University of Alberta, Edmonton (2000)
- 92. Sifa, R., Drachen, A., Bauckhage, C.: Profiling in games: Understanding behavior from telemetry. Social interactions in virtual worlds: An interdisciplinary perspective (2018)
- 93. Sifa, R., Pawlakos, E., Zhai, K., Haran, S., Jha, R., Klabjan, D., Drachen, A.: Controlling the crucible: a novel pvp recommender systems framework for destiny. In: Proceedings of the Australasian Computer Science Week Multiconference. pp. 1–10. ACM (2018)
- 94. Sown, H.H., Jeon, S.K.: Storytelling characteristics of the moba with a comparison to the mmorpg: Focused on; league of legends;. Asia Digital Art and Design **2013**(12), 430–433 (2013)
- 95. Square Enix: Final Fantasy XIV (2013)
- Stafford, T., Devlin, S., Sifa, R., Drachen, A.: Exploration and skill acquisition in a major online game. In: The 39th Annual Meeting of the Cognitive Science Society (CogSci). York (2017)

- 97. Statt, N.: Fortnite is now one of the biggest games ever with 350 million players. The Verge (2020), https://www.theverge.com/2020/5/6/21249497/fortnite-350-million-registered-players-hours-played-april Accessed on the 21th of January 2021
- 98. Steamcharts: Steamcharts' top games by current players (2021), https://steamcharts.com/top Accessed on the 17th of January 2021
- 99. Tamassia, M., Raffe, W., Sifa, R., Drachen, A., Zambetta, F., Hitchens, M.: Predicting player churn in destiny: A hidden markov models approach to predicting player departure in a major online game. In: 2016 IEEE Conference on Computational Intelligence and Games (CIG). pp. 1–8. IEEE (2016)
- 100. Tassi, P.: Destiny 2's 'you had to be there' philosophy is turning off players. Forbes article. https://www.forbes.com/sites/paultassi/2020/01/22/destiny-2s-you-had-to-be-there-philosophy-is-turning-off-players/?sh=6e886c641b3a Accessed 25th of June, 2021. (2020)
- 101. Tatarchuk, N.: Character creation pipeline and rendering in destiny (full text not available). In: ACM SIGGRAPH 2014 Courses. SIGGRAPH '14, Association for Computing Machinery, New York, NY, USA (2014). https://doi.org/10.1145/2614028.2615457, https://doi-org.oca.ucsc.edu/10.1145/2614028.2615457
- 102. The Game Band: Blaseball. https://www.blaseball.com/ (2020)
- 103. Toups, Z.O., Hammer, J., Hamilton, W.A., Jarrah, A., Graves, W., Garretson, O.: A framework for cooperative communication game mechanics from grounded theory. In: Proceedings of the First ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play. p. 257–266. CHI PLAY '14, Association for Computing Machinery, New York, NY, USA (2014). https://doi.org/10.1145/2658537.2658681, https://doi-org.oca.ucsc.edu/10.1145/2658537.2658681
- 104. Valle, C.G.D.: 'destiny 2' twitter, facebook taken over by villain caiatl: zavala storyline cutscene leaked [video]. Techtimes article https://www.techtimes.com/articles/257864/20210309/  ${\tt destiny-2-twitter-facebook-taken-over-villain-caiatl-zavala-storyline}.$ htm Article has images of tweets in question with corresponding avatar icon and name (the account has since been rebranded back to "Destiny 2" https: //twitter.com/DestinyTheGame. Also see Reddit thread from the time https: //www.reddit.com/r/DestinyTheGame/comments/m0kggb/destinythegames\_ twitter\_profile\_has\_changed\_his/ and community conversation about it at https://twitter.com/MyNameIsByf/status/1369991874539311104. (2021)
- 105. Vince McMahon, World Wrestling Entertainment, I.: World wrestling entertainment, inc (wwe) (1980 (As Titan Sports), 1998 (As WWF), 1999 (as WWE)), https://www.wwe.com/
- 106. Wallner, G., Kriglstein, S.: Introducing planet: A tool for visualizing player communities. In: Proceedings of the 13th International Conference on the Foundations of Digital Games. FDG '18, Association for Computing Machinery, New York, NY, USA (2018). https://doi.org/10.1145/3235765.3235808, https://doi-org.oca.ucsc.edu/10.1145/3235765.3235808
- 107. Wallner, G., Kriglstein, S., Drachen, A.: Tweeting your destiny: Profiling users in the twitter landscape around an online game. In: 2019 IEEE Conference on Games (CoG). pp. 1–8. IEEE (2019)
- 108. Wallner, G., Schinnerl, C., Schiller, M.H., Calvo, A.M., Pirker, J., Sifa, R., Drachen, A.: Beyond the individual: Understanding social structures of an online player matchmaking website. Entertainment Computing 30, 100284 (2019)

- 109. Webster, A.: With the apocalyptic black hole event, fortnite's storytelling has grown increasingly ambitious (2019), https://www.theverge.com/2019/10/14/20913541/fortnite-game-shutdown-black-hole-event-storytelling Accessed 17 January 2021
- 110. Whalen, Z.: Game/genre: A critique of generic formulas in video games in the context of "the real". Works and Days **22**(43/44), 289–303 (2004)
- 111. Williams, M.: Rise of the lifestyle game: Gaming as your second job (2014), https://www.usgamer.net/articles/rise-of-the-lifestyle-game-gaming-as-your-second-job Accessed on the 17th of January 2021
- 112. Wizards of the Coast: Magic: The Gathering (1993)
- 113. Zagal, J.P., Mateas, M.: Time in video games: A survey and analysis. Simulation & Gaming  ${\bf 41}(6),\,844-868$  (2010)
- 114. Ziebart, A.: Wow archivist: The gates of ahn'qiraj (2011), https://www.engadget.com/2011-04-19-wow-archivist-the-gates-of-ahnqiraj.html Accessed 17 January, 2021