"Anything a Guardian Does Is Canonical": Player Understanding of Canon in Destiny

BJARKE ALEXANDER LARSEN and ELIN CARSTENSDOTTIR, University of California, Santa Cruz, USA

The narrative experience of perennial games—ongoing, live games—revolves around the community that plays it. These games serve a fractured form of storytelling, which leaves it to the community to determine what counts as part of the story; or what is considered "canon". What is canon is a question of who and what the story is allowed to be about, and what is allowed to be in it. Therefore, it is important to understand how players of perennial games understand what is canon and what is not. This paper presents a mixed methods study of an online survey (N=118) and interviews (N=15) of players of the game Destiny 2, with the goal of understanding what events players consider canon and why. The findings indicate that while authorship and conventional game story elements are considered canon, there is still disagreement, especially as the storytelling methods become non-conventional. Players can provide nuanced viewpoints on why an event is or is not canon, and they do not always agree. These results can help designers understand how their decisions influence the community discussions of canonicity, and how properties of their game can help create experiences that lets players see themselves in the work.

CCS Concepts: • **Information systems** → **Massively multiplayer online games**; • **Software and its engineering** → *Interactive games*; • **Human-centered computing** → *Empirical studies in HCI*.

Additional Key Words and Phrases: online communities, narrative, MMOs, lore, canon, perennial games, Destiny

ACM Reference Format:
Bjarke Alexander Larsen and Elin Carstensdottir. 2023. "Anything a Guardian Does Is Canonical": Player Understanding of Canon in Destiny. *Proc. ACM Hum.-Comput. Interact.* 7, CHI PLAY, Article 383 (November 2023), 27 pages. https://doi.org/10.1145/3611029

1 INTRODUCTION

Perennial games [60, 61] are on-going live games that create perpetual experiences. Perennial games, including games such as Fortnite [32], Destiny 2 [16], and League of Legends [85], are played by millions of players, and are very pervasive in the current media landscape. They are increasingly evolving as transmedia storytelling experiences, and becoming more well regarded as such, with popular TV show adaptations like League of Legends spin-off Arcane [86].

The stories these games are offering are experienced by millions of people across multiple years and media types, with various levels of engagement and involvement. Expecting any single individual to be able to experience all of the content equally is untenable, and therefore information is spread out within communities of players. This turns these perennial games into social experiences, where players often rely on other community members to keep themselves informed about what is happening in the story. As these games continue to expand their content, these communities

Authors' address: Bjarke Alexander Larsen, balarsen@ucsc.edu; Elin Carstensdottir, ecarsten@ucsc.edu, University of California, Santa Cruz, Santa Cruz, CA, USA.



This work is licensed under a Creative Commons Attribution 4.0 International License.
© 2023 Copyright held by the owner/author(s).
2573-0142/2023/11-ART383
https://doi.org/10.1145/3611029

that form around them are becoming more and more important to how these stories are told. This fractured nature of storytelling can make it difficult to precisely ascertain what is part of the story, or as it is often discussed within the communities themselves, what is "canon". This is the commonly understood, approved foundation of what the story is, and what it can be about [19, 47, 53]. Fans and communities around these stories are a part of maintaining this canon, as well as subverting and commenting on it. What is considered canon matters a great deal because it defines what is accepted truth about the story world and what is possible within it, and thus what kinds of stories one is allowed to tell within that world. This is for example important for inclusion and representation [30, 107], as we can see how canonical queer representation shifts the conversation [30, 49, 96]. Who and what is allowed to be in canon sets the expectation for fans, and thus in turn sets the expectation for what the community can expect from the story. As fans, people want to see themselves in their stories (or historically when not been able to do so, they would write their own [30, 49]). It is also important for the community's understanding of itself collectively, as when its members decide something is canon or not, the players are framing their own communal relationship with the game and each other. What is canon of a story becomes part of the identity of that experience, and something the community that forms around it wants to see themselves reflected in. What is canon thus becomes a question of who is able to see themselves in the storytelling experience and, how the community is able to talk about the story.

However, in perennial games, it is often muddy to describe exactly what is canon and what is not, as their worlds are impacted by the reality of real-time game development [60, 61]. The narrative of these games are authored, i.e. there is intent in their design and storytelling, and authorship is often implicative of what is canon [96, 107, 110], yet the relationship is more complicated as the authors are creating the story simulatenously with the audience experiencing it, both in and outside the game [103]. It is thus necessary to understand how the communities and fans of perennial games define something as canon. To understand this, we must understand what design decisions in the game led to the community seeing an event one way or the other. By understanding this, future scholars and designers of perennial games can more thoughtfully engage and study how its design affects its community. This could lead to designs that foster a more positive and inclusive community, where players feel part of the world. Thus, we aim to explore what players consider canon, specifically: *What elements of the narrative or game experience do players consider canon in a perennial game, and why?*

This paper aims to answer this question with a mixed methods study of the experience of Destiny players, consisting of an online survey that explores what events players consider canon, which was followed up with a semi-structured interview where players were asked for more detailed arguments for why they consider certain elements canon or not. The chosen game for this study is the Massively Multiplayer Online (MMO) first-person shooter (FPS) "Destiny (2)". Previous work on Destiny has highlighted its suitability for study of player perception of canon, such as a robust community that actively discuss the story, as well as transmedia properties and active fanproduction, alongside Destiny's perennial aspects [60, 61]. Destiny's developers, Bungie, are actively engaged with reacting to the community through the game itself, and intentionally include previous players' actions as part of their future content, which has the potential to shift how the community see their own actions. By understanding how players consider the canon in reaction to the game's storytelling, we can help build better player community experiences through stories.

2 RELATED WORK

2.1 Perennial Games

Perennial games are a term coined by Larsen and Carstensdottir [60] for long-running, on-going games, also sometimes called "live-service" games, that describes them closer to how they are experienced as stories, rather than describing their distribution. A perennial game is perpetual, temporally continuous, and has a universal chronicle of events maintained by the audience and the authors. Games such as World of Warcraft [9], League of Legends [85] or Destiny [15, 16] are examples of perennial games. While the term is recent, considerable effort has gone into studying games that would classify as perennial games, while not explicitly refered to as such. Specifically, academic work on MMOs like World of Warcraft that studies the communal properties and interaction with on-going storytelling that is crucial for canonicity, is highly relevant to this work.

2.2 Work on Perennial Games

Much academic work was done on MMOs in the early 2000s through an anthropological lens, viewing them as social spaces and sites of ethnography [4, 6, 10, 11, 56, 71, 79, 102]. Portions of this work is concerned with the social aspects of these games [17, 22, 65], how communities are built and maintained [6, 62], how these virtual worlds impact identity [23, 24, 31, 50] or their spiritual aspects [3, 38, 92]. Authored storytelling was not the primary concern in these studies, and, while we do see discussion of fandom and fanworks and player creativity which engages with the relationship between the authored story and the players' own [10, 79], there is less work done directly on how players of perennial games engage with the canon. Stern [98] investigated the diegetic properties of MMOs in 2002, which is a related term to canon, and found many elements that were non-diegetic (not an explainable part of the story world). Some elements could be "patched" with metaphors such as loading screen hidden by travel or portal visualizations, but some could not, such as server downtime or meta-descriptive language. According to Lohmann, there were major challenges to authored storytelling in MMOs, such as repetition and lack of causality [63], leading many to dismiss its narrative potential, instead focusing on player-driven, emergent storytelling [42, 43, 76]. More modern work on MMOs and other perennial games does not stray too far from this [41, 54, 66], with a few exceptions [46, 84, 95]. An emphasis has been placed on these worlds as *real* [38, 59], yet they also contain fictional elements, which creates a tension. Krzywinska [59] and Larsen & Carstensdottir [61] offer a framing of perennial storytelling as "myth", which helps alleviate some of the issues with repetition. However, it is unlikely that regular players consider their actions in a game as "mythological". Yet, Players *do* discuss the canon, as is evident from spending time in any online game community with a storytelling component [5, 74, 107, 113], so the question is how they do so, considering these narrative tensions.

2.3 Canon and Fandoms

"Canon" is a term used by fandoms to identify the "canonical" texts of a franchise or property [19, 47, 53]. In fandom studies [47, 52], canon is described as the opposite of the fan work (fan fiction, fan art, etc). It is the official, authored text that the fandom reacts to and builds upon [19, 110] and is primarily connected to storyline consistency and continuity [19], and created by an authority, such as a single author or company [96, 107, 110]. This is different from the other, cultural meaning of a "canon": A collection of "authorized" or "approved" works that surmise the greatest or most important parts of a larger collection [53]. However, Kahane shows that these two concepts are more related to each other than it might seem at first glance, as they are both about containing a surplus of material into a coherent body [53], and the work of maintaining this

body is done by a community at all times. While canon might be initially assumed as a binary distinction between fans and authors, modern fan studies consider the relationship more nuanced and complicated [25, 47, 53, 96]. Parts of fan works can become so accepted by the community it is called "fanon" [19], or even broach into the canon directly [37]. Fans, too, can have nuanced and self-developed ways of talking about canon, such as the "Watsonian vs Doylist" paradigms from Sherlock Holmes fandom [26, 29], which has expanded to other online fandoms [72]. These discussions can be influential and controversial to the entire experience of the fandom [107, 110], and discussions of canon in games should not be excluded from the player experience.

Regarding games specifically, a "canon" of games or game studies in the cultural sense is common, such as [36, 55, 57, 78], or even a "canon" of fanworks in games [75, 112] (as also done by outside game studies [34]), but investigations of how games create a canonical story for players is rarer. Murray mentions it in terms of story paths [69], and in HCI there are several papers investigating "canon trajectories", meant as the authors' "intended path" through a game [7, 105]. In game studies, a few papers mention the canon of games like Mass Effect [8] or Gears of War [74]. In FDG[1], one paper was found describing canonicity in the story-sense, but their example was fandom of Star Wars movies, not games [91]. Kevin D. Ball [5], investigated how the lore community of Bloodborne disagrees on the concept of authorship when their own interpretations are simultaneously treated as uncovering the authors' true intentions and their own authored work.

For perennial games, specifically, Greting et al. studied fanwork in Genshin Impact [40]—which is a perennial game—but focused explicitly on fanworks for the game and not the canon. There are examples of canonicity in ARGs [1, 45], which have some perennial qualities, as they tend to blend the real-world passage of time as part of their construction. The study by John Walliss on Warhammer 40k fanfiction [107] discusses how players see the canon of Warhammer 40k and how the commmunity is fractured on whether they see fanfiction as needing to adhere to the canon or not. However, this is not a (single) video game, and Warhammer is more a transmedia property. Perennial games are often transmedial, and there are studies of canonicity in transmedia as well [20, 77, 82, 99, 106, 113] but this is a much wider scope than a single perennial game and often has a myriad of ways of engaging with it as an audience.

Video games are a unique medium in how it affords canonicity in combination with play. Marc Ouellette discusses how video games afford players to play with identity [74]—and this is especially true of many perennial games like MMOs [18, 23, 31, 50, 51, 79]. In games, players are thus performing inside the fictional world. This changes their relationship to the canon and how they engage with authored content and the fictional world. Players can deviate [68], transgress or subvert authorial intent, and this has been explored in game studies. There are multiple examples of such types of play, most notably in queer game studies [88, 89]. As a result, authorship can become complicated. In games, authors can intentionally affect how the game is meant to be played, by changing the spatial and temporal structures of the game [87]. This allows them to react to players' behavior and adjust their plans for the narrative. However, Shaw and Persaud explain how authorship in games is difficult to pin down as any game is rarely done by a single person with a unified intent [96]. Players' performance and play complicate canonicity when developers respond to the player community by altering the narrative of actions of the game. This complicates the authorship, the canon, and discussion around it even further. Games, thus, give new ways for players to redefine their relationship to the work of the author [30, 49, 96, 107]. How this shapes the community's understanding of that canon is still uncertain, and this is especially uncertain in perennial games like Destiny.

[1]Foundations in Digital Games.

2.4 Destiny

Destiny[2] is an MMO-FPS by Bungie, released in 2014. Destiny's player base has been of interest to the academic community for several years. A series of papers presented analysis of Destiny players' telemetry play data to investigate a variety of factors, such as motivation [93], player profiling [27, 100] and player networks [81], that use use telemetry data from a specific time frame. Outside player telemetry, others have gathered Twitter conversations or matchmaking websites about Destiny, to understand the influence of out-of-game information [28, 64, 94, 108, 109], or inspecting the influence of influencers [64, 80]. Further, Destiny has been examined in terms of identity [18, 51] (grouping it together with the many works on MMOs and identity), economics [67], and competitive multiplayer [83, 97]. The storytelling aspects of Destiny has been examined in the context of defining perennial games [60, 61], but not as it relates to its players' concept of canon.

2.4.1 Canonicity in Destiny. Destiny presents its story in many forms. Traditional storytelling methods for video games such as dialogue, cutscenes, text, and cinematography are frequently used for major story moments [60]. Destiny, like many perennial games, also has a considerable amount of backstory and "lore" [84] that is presented through short stories or item descriptions, or other story artifacts [58], which is often presented in fragments out of order, contrary to the real-time storytelling that is distinctly linear. Larsen and Carstensdottir note that the world of Destiny is intended to operate on a temporal scale matching the real, physical world [60]. A fictional year in Destiny takes a real calendar year to unfold, in real-time. Destiny, also, attempts to have fictional explanations for many typically "game-y" aspects, such as respawning, player versus player combat, and teleportation. Destiny has even hinted that the players themselves (outside the screen) are part recognized by some fictional characters [111]. Destiny has referenced actions of the players themselves, even when doing innocuous activities that are typically not part of the storytelling, such as dancing or idling in a social hub [13]. Even repetitious elements such as recurring missions sometimes have an in-world reasoning for this repetition [14], and bugs and exploits has been given narrative explanations after the fact [33, 37, 39, 48, 73][3]. Together, these aspects make Destiny a prime candidate to study canonicity in perennial game storytelling. This all makes each player moment more directly part of the story, as it unfolds in the same temporal scale as the storytelling does, and every death, activity or action by players can be said to match the narrative timescale. However, there are of course exceptions to this rule, and this is where it gets complicated.

3 METHODS

This work is meant to explore the question: *What elements of the narrative or game experience do players consider canon in a perennial game, and why?*. Due to its complexity, in this paper we choose to focus on exploring how elements commonly associated with canonicity, such as authorship [19, 96, 107] and storytelling methods [5, 26, 107] relate to players' understanding of the canon in Destiny. Destiny was chosen because of its unique canonical aspects mentioned in section 2.4.1, as this brings the canonical questions of interest to the forefront for the players, making it more likely they have considered opinions on the matter. Specifically, we focus on 4 sub-questions:

***RQ 1**: How much is authorship impacting participants' consideration of an event as canon?*

***RQ 2**: How much is traditional storytelling methods impacting participants' consideration of an event as canon?*

[2]We discuss Destiny [15] and Destiny 2 [16] 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.

[3]And to showcase that the Destiny community is talking about canonicity, see the community's internal wikipedia's canon policy: https://www.destinypedia.com/Destinypedia:Canon_policy. Accessed 21st of February 2023.

Storytelling methods refer here to aspects of traditional storytelling design in games, such as characters and dialogue and cutscenes, notes and story artifacts [58]. However, in exploring this we also consider non-traditional story elements outside the game such as loretext on websites or social media. Furthermore, as studies of perennial games reveal, a common cause of the difficulty in establishing its canon is the repetition inherent in their design, that seemingly contradicts with the forward propulsion of a story [59, 61, 63], leading us to ask:

***RQ 3**: How does repeatability impact participants' consideration of an event as canon?*

Finally, to answer the question of why an element is considered canon, we must look at the arguments the participants have for and against this, leading to our final sub-question:

***RQ 4**: What are the arguments for or against an event being canon?*

This study is done in two parts. First, an online survey was conducted to explore what players considered canon (RQ1-3), and then a semi-structured investigative interview to follow up and explore why players considered those elements canon (RQ4). Both studies were approved by the Institutional Review Board of UC Santa Cruz. Participants were not compensated, however part of the interview did consist of sharing the data from the survey which was of potential interest to the participants—this however was not communicated before the interview so it was not an incentive to volunteer as an interviewee.

3.1 Recruitment

The study targeted current or previous players of Destiny and/or Destiny 2. An interest in the story was not required to participate, however, the canon of Destiny is most present in its narrative. Players interested in the story are therefore an important target group. Thus, the survey was shared in communities where interest in the story was prevalent. Participants were required to be 18 years or older, and be able to read and write in English. The survey was shared through social media (Twitter, Discord) and within several Destiny player communities: 4 smaller player communities (10-100 members), and one large Destiny lore community (1000+ members). The surveys were only shared in Discord communities where researchers had gained explicit approval from leading community members. Participation was entirely voluntary and did not impact their membership in these communities in any way. Further resharing was encouraged, for snowball sampling[4]. The survey was shared in the months September-November 2021.

Requests for interviews were shared in the same communities the survey had been shared in, with the same inclusion critera, as the target group was identical, where participants could sign up voluntarily. The interviews were conducted 1 year after the survey closed (November 2022). Participants could have participated in both the survey and the interview, but as the survey was anonymous, the interview participants were not asked about their participation in the survey. In addition to anonymity, survey participation was a significant amount of time prior, a whole year by the time the interviews were conducted. We argue this is sufficient time to assume that participants participating in both would be reasonably unaffected by any priming or impact of the survey questions.

3.2 Survey

3.2.1 Format. The survey was an online survey developed in and shared using the Qualtrics platform. The survey focused on collecting information on participants' perception of different types of events from their individual experience, as well as Destiny's overarching history. Participants were given free form text to describe their experience in detail. For historical information, a

[4]A tweet got publicly shared by a popular Destiny lore community account, which boosted participation. The recruitment tweet can be seen at https://twitter.com/BjarkeAL/status/1434933783791292421.

categorization task was chosen. This design was chosen to account for and capture how players view the canonicity of both their individual behavior and the larger historical events of the game.

After participants gave their consent, the survey collected the participants' Destiny experience, i.e. their playtime statistics and activities. Participants were then asked to describe, via free form text description, three of their favorite or most memorable events from Destiny: A generally favorite event, a favorite narrative event, and a favorite social event (with other players). For each event, a follow-up question asked whether the participant thought this event was canonical. No prior definition of canon was provided to participants, as one aim of the study was to understand how they themselves understood the term. Canon is already a widely understood term within the Destiny player community and general game fandoms. As such, it was expected that players would know the term beforehand.

Then, the survey provided a list of events from Destiny's history to the participants. These events were chosen to cover a variety of event types that relate to elements of the narrative, authorship, repeatability, and other aspects of perennial storytelling. This list was generated by the primary researcher based on research into and prior experience with the game (see complete event list in section 4.4). Participants were given a randomly sorted list of these events and asked, for each, to sort it into "canon" or "not canon" categories, or a "don't know" if they did not recognize the event. The survey was pilot-tested by two Destiny players associated with the research team, to evaluate the appropriateness of the language and whether the pre-determined events were understood as expected.

3.2.2 Data Processing and Coding. After collection, the qualitative survey data was processed and anonymized for coding and all identifying information was removed (i.e. player group names, personal names, or links to personal websites). Demographics and prewritten canon events data was charted with frequency analysis and descriptive statistics to get an understanding of the participants' Destiny experience and narrative interest. A narrative interest score was calculated from 3 likert scale questions.

The qualitative data from the survey of player's 3 memorable events was too dense to make line-by-line coding viable and thus a holistic [90, p. 142], simultaneous [90, p. 80] multi-dimensional coding approach was taken. This is adopting a method developed by Poole [90, 104], except here it is applied to multi-dimensional data instead of longitudinal data. To develop these dimensions, one researcher iteratively coded the responses, supported with discussion with another researcher, as recommended by Saldaña [90, p. 35]. These dimensions were designed to encompass various possible facets of that data that could be could be related to its canonicity based on the literature review, such as authorship [19, 96, 107] and repeatability [59, 60, 63]. In total, 3 dimensions were developed. With these, the coding was done by 2 coders, where each dimension was treated as its own codebook. One did a complete coding of the entire dataset and the other did 20% for IRR calculations [2, 44], which was calculated via Cohen's Kappa [21], and found fair to excellent agreement [35]. The exact IRR values can be seen in the results (section 4.2). These coding dimensions were correlated with whether the event was considered canon by the participant, using a chi-square pair-wise test. A Bonferroni correction was utilized to counteract the multiple comparisons needed due to the number of codes.

The dimensions, number of codes, and inter-rater reliability agreement can be seen in Table 1.

3.3 Interview

3.3.1 Format. The semi-structured interview was done online through the communication platform Discord, as the players already had familiarity with it. The main goal of the interview study was to explore participants' reasoning for an event being canon, and the results from the survey were

Table 1. Table of the code dimensions developed for the coding. Each code dimension has a unique set of codes and thus IRR was calculated for each individually. The agreement is calculated from two reviewers, on 20% of the dataset using all dimensions. Further iteration was not possible due to time constraints. Disagreements in repeatability dimension were due to subtle disagreement on what constituted repetition between one-shot events and where repetition was theoretically possible but not commonly enacted/performed. Cohen's kappa on this dimension with only 2 codes ("one-shot" and "repeatable") is 0.85.

Code dimensions	Nr of Codes	Percentage Agreement	IRR
Repeatability	3	72.46	0.54
In-game Activity	15	75.36	0.7
Authorship	3	98.55	0.93

used to facilitate this. The results were compiled in an online spreadsheet to help interviewees to reflect on the community's views on each event. Each participant was given a consent form prior to the interview and then was asked to look through the results and say what they considered strange or curious or wrong about them. From that discussion, the interviewer asked follow-up questions into the participant's reasoning. The question was posed this way to get at the events with the most conflicting reported canonicity from the survey. These were deemed more valuable to learn the reasonings for and against because they likely had multiple arguments in either direction, constrasting to something players would think was obviously canon or not.

3.3.2 Data Processing and Analysis. The interviews were audio recorded and transcribed with Google's automatic transcription. One researcher quality-checked the transcription of all interviews by listening through them, corrected errors and anonymized them. These transcriptions were then analyzed. To categorize the arguments, the transcriptions were tagged based on whether an argument was for or against an event being canon. The tagged statements were then laid out in a table based on the event they referred to. From this table, the meaning of the participants was condensated for and against the various events being canon, ultimately resulting in a table that is agnostic of individual events, but displays arguments for and against any event being canon (table 4).

4 RESULTS

A total of 118 participants responded to the survey, that ran from September 6th till November 1st 2021. 15 interviews were conducted in the timeframe of November 2nd to November 23rd 2022.

4.1 Survey Demographics

Mean Destiny playtime for all survey participants was 2076 hours (median 1626 hours), with a large variance (standard deviation of 1728), with lowest being 90 and highest being 10333 hours.

50.4% of the participants started playing Destiny during its official release in 2014. Another 20.5% marked 2017 (Destiny 2 release). The remaining 29.1% are distributed throughout the other years (2015, 6.8%, 2016, 2.6%, 2018, 11.1%, and 2019, 8.5%). No one marked starting in 2020-2021.

The participants showed a strong narrative inclination overall (107 participants (90.6%) had a narrative score above 3.33 out of 5). See Fig. 1). Many participants considered themselves as spending more time on the narrative compared to gameplay, with 63 participants spending more time on narrative (score of 4 or above) and 16 participants spending less time (2 or below); however, 39 participants participants reported spending similar time on both (between 2 and 4), which is more mixed than the interest score.

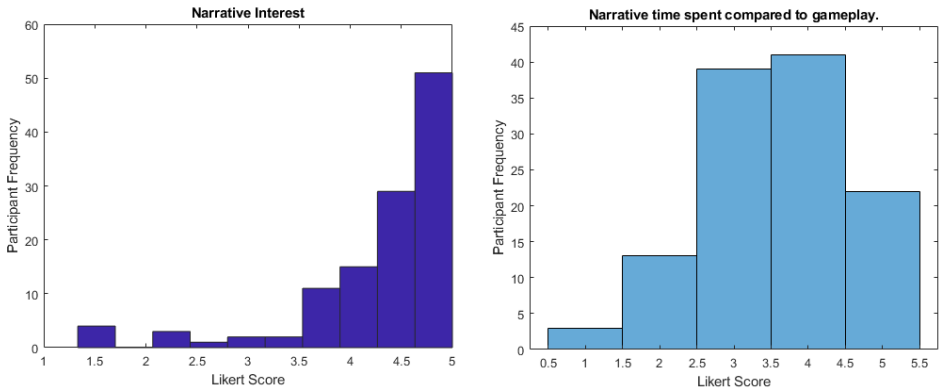


Fig. 1. Left: Histogram of self reported measure of narrative interest. 3 likert scale values are combined to a single narrative interest score. Higher number is higher narrative interest. Right: Histogram of self-reported, estimated time spent on narrative vs gameplay of Destiny 2. Higher score means more time spent on narrative.

4.2 The Personal Events

All 118 survey participants were asked to report 3 memorable events in the three categories: Overall favorite moment (general), favorite narrative moment, and favorite social moment, resulting in 354 events. 5 were incomplete and removed, leading to a total of 349 events for analysis. Interestingly, 4 of the blank events were in the social category. Participants stated that they *"prefer[s] to play alone"* (participant 66) or *"I don't think I've got one of these"* (participant 88). Every participant supplied a general favorite event and only one did not supply a narrative event.

3 dimensions for coding were developed for these events, with 3 corresponding codebooks with 3 to 15 codes each[5]. The dimensions were as follows:

- Authorship: Did Bungie author the activity the participant were in or engaging with? Yes, no, or mixed.
- In-game activity: The in-game name given to the activity the participants were doing at the time. This refers to the in-game activity itself, not the exact activity, i.e. a participant could describe goofing around in a raid with other players but the activity is coded as "raid".
- Repeatability: Whether the activity participants were describing was easily repeatable in the game or not. Yes, no, or theoretically[6].

You can see the calculated IRR scores in section 3.2.2.

4.3 Correlations with the Canon

Each dimension was correlated with the self-reported canon-measure using a chi-square test for each dimension. The category of the event (general, narrative, or social) was also compared to the canonicity (see table 2).

[5]2 dimensions have 2 codes, only "In-game Activity" has 15 because of the many possible activities in Destiny.
[6]A series of activities in Destiny, such as the campaigns, are repeatable but only with difficulty, such as deleting your character and starting over. This is different from events that are never repeatable, such as Day 1 raids or live events, and thus a separate category was created for them. It should also be noted that some activities and campaigns have been removed from Destiny by Bungie as the game has changed, but this did not factor into the repeatability code. If an activity at some point was repeatable, it was coded as such.

Table 2. Table showing the results of all chi-square tests, showing correlations between the individual dimensions and the participants' self-reported canoncity. All results were significant under bonferonni-corrected value of 0.0125

Dimension	Chi value	P value
Authorship	46.14	<0.001
Activity	141.73	<0.001
Repeatable	64.74	<0.001
Category	123.87	<0.001

All dimensions showed strong correlation with whether the event was considered canon. To inspect these relationships further, we dive into each dimension in more detail. A correlation matrix table of each code and how it correlated with the canon can be seen in Appendix A.

4.3.1 Authorship. The first point of comparison is whether participants considered their personal events canon compared to whether the activity was authored by Bungie. As expected, authored activities are predominantly judged as canon (184 yes, 64 no, 52 maybe), and non-authored activities predominantly not canon (6 yes, 28 no, 6 maybe). There remains some disagreement however, as there are still 64 events (21.3% of authored activities) in activities authored by Bungie which are not considered canon and another 52 (17.3%) that are maybe. An interesting example is from participant 111, who explained a story of a boss fight where the enemy stopped him from reviving his friend just in the nick of time. *"It felt like the enemies were thinking & reacting to my actions for once, just like how the lore makes them out to be."* This moment was marked as not canon by the participant, contrary to it being part of an authored, narrative campaign mission and the boss did a narratively appropriate action, but the participant sees this happening as a "coincidence" and thus is not canon.

4.3.2 Activity. Raids were the most popular activity mentioned across all events, and show mixed evalution by participants regarding their canonicity (47 yes, 47 no, 28 maybe). For example, participants 27 and 28 both mention completing a raid for the first time as their favorite social moment, but one marks that as canon, the other as not. Note that participants weren't necessarily calling the raid itself not canon, but rather their experience inside this raid. Participant 51 mentions a narrative moment in a raid *"when the AI gets pissed at you for intruding"* as canon but participant 93 says that *"helping players get their first raid clears"* is not canon. In contrast, the campaign or mission activities have a strong perception of being canon (Campaign 51 yes, 6 maybe, 1 no; Missions 22 yes, 8 maybe, 1 no), whereas PvP[7] (0 yes, 10 no, 2 maybe) or social hub activities (3 yes, 8 no, 0 maybe) do not. 8 participants also mentioned "lore" moments (i.e. moments only present in the backstory and not experienced in the gameplay) as their favorite, and all of these were marked as canon.

Several participants argued that *how* a moment was presented to them mattered. Participant 45 mentioned this as their favorite narrative moment: *"Andal Brask being mentioned in game, when for so long he felt like an abandoned character [...] I was so damn happy"*. Partipicants 59 and 62 also both mentioned as their favorite moments finally getting to meet a character "in-game" that had been introduced through the lore and only talked about in text, but never been present on screen, until that point. Participant 106 says this: *"I think the visceral experience of seeing the [reveal of character's fate] made it more impactful than any of the Grimoire[8] entries."* This indicates that participants assign a greater level of gravitas to in-game moments versus those present in other

[7]Player versus Player

[8]The Grimoire is a common word for Destiny's lorebooks.

parts of the lore, despite both being, ostensibly, considered equally canonical. We can also see this in the sheer numbers of events. Only 25 events (17 out of game, 8 lore) of all 349 (7%) were in activities not in the game. Every other favorite event happened in the game in one form or another.

4.3.3 Repeatability. Repeatable activities show a similar trend of a heavy disagreement between whether or not they are canon or not (48 yes, 65 no, 42 maybe), whereas one-shot (79 yes, 30 no, 11 maybe) and theoretically repeatable activities (primarily campaigns) (56 yes, 1 no, 6 maybe) are in majority considered canon. Participant 72, who shared a story of their first raid experience with others who had played through it many times, yet had little to no idea of the storytelling implications of: *"They'd teach me how to fight and if tell them about the Warpriest, Golgoroth and the Deathsingers. My top gaming experience of all time."*. This event was marked as maybe canon. Participant 89 also mentioned the same raid as their favorite moment because *"it got me to read the hive book/bible on Ishtar*[9] *"*, which was marked as canon.

4.3.4 Category. Finally, the category of event was correlated with canonicity, that being either the general, narrative, or social events the participants were asked to write. When asked to describe a narrative event, participants predominantly describe something they consider canon (111 yes, 2 no, 5 maybe), whereas when they describe a social event, it skews more towards a non-canon event (27 yes, 60 no, 31 maybe). The general event shows a similar trend as authorship or raids: majority yes, but heavy disagreement (56 yes, 38 no, 24 maybe).

3 participants mentioned the canon directly in their responses. Participant 32 mentioned making their own "headcanon" (fan fiction) about their own characters, and how they fit into the universe. Participant 67 mentions how an event got "canonized" and how that changed their perspective on that event, since it "retconned" the potential other possibilites that could have happened. Finally, participant 79 mentioned the small moments with strangers in social hubs and how those are canon to them, ending with the line *"Honestly, anything a guardian*[10] *does is canonical"*.

4.4 Predetermined Events

For all 38 predetermined events, survey participants were asked whether they were canon or not. Participants could also say they did not know the event, in which case it has been sorted into NA, and not used for the percentage calculation. The results can be seen in table 3.

Events that can be classified as traditional video game storytelling methods, such as campaigns, cutscenes, lore, and dialogue, are predominantly seen as canon (>80%). E1-19 are all events told through those means. The exceptions are E7, E15, which are live community events with an authored, narrative component (along with E20). Contrast this to E31, which was a community event Bungie had no say or effect on, and the difference between this and E7 (43% and 99%) is stark.

The more striking results are those where the results are mixed. The difference in percentages between E30 (36%) and E21 (81%) is striking because they are gameplay-wise the exact same type of event. This difference of almost 40% percentage points exists despite how both are "strikes" in Destiny, i.e. short, repeatable missions that players do over and over again for rewards. The one difference between them is that the final boss of E21 has been given a canonical reason for this repetition, whereas E30 (and most other strikes) have not. The difference suggests that the participants pay attention to this kind of information. E24 (71%) and E25 (64%) and E29 (46%) were events where actions of players got a narrative response, even if those actions were not themselves narrative. E24 did have a precedence set by a fictional character, which may explain its higher percentage[101], but otherwise the very mixed canonicity of these events shows that players actions

[9] A popular community lore website.
[10] "Guardian" is the fictional name for a playable Destiny character. Every player controls a Guardian.

Table 3. Perceived canonicity of the pretermined events. Sorted by canonicity, highest canonicity in the top.

E	Text as shown to participants	Meta-description	Author	Canon	Not	NA	%
1	The Collapse	Backstory	Bungie	114	0	4	100%
2	The Battle of Six Fronts	Backstory	Bungie	107	0	11	100%
3	The Death of Oryx, The Taken King (King's Fall)	Raid Boss Death	Bungie	115	0	3	100%
4	The Red War	Story Campaign	Bungie	118	0	0	100%
5	Cayde-6's death	Expansion Campaign event	Bungie	118	0	0	100%
6	The Traveller arriving in the solar system	Backstory	Bungie	116	1	1	99%
7	The Crash of the Almighty	Community Event	Bungie	116	1	1	99%
8	Clovis Bray's Diary and the events therein	Physical NPC Diary, part of an ARG	Bungie	108	1	9	99%
9	Visiting Mara at the Queen's Court	Weekly character visit	Bungie	112	3	3	97%
10	Guardians kill Skolas in the Prison of Elders	Repeatable Boss Death	Bungie	104	3	11	97%
11	The world's first completion of The Last Wish, triggering the curse cycle.	First Raid completion	Bungie	111	4	3	97%
12	The Traveller healing itself the day before Beyond Light.	Community Event	Bungie	109	4	5	96%
13	Eris' weekly communications with The Darkness (Season of Arrivals)	Weekly Story	Bungie	107	4	7	96%
14	The Gardener and the Winnower disagreeing on the ideal state of the universe	Lore event	Bungie	103	4	11	96%
15	The disappearance of Mars, Mercury, Titan, and Io.	Cutscene, Live story	Bungie	113	5	0	96%
16	You awakening in the Cosmodrome.	Player's Guardian being born	Bungie	111	5	2	96%
17	Zero Hour: Mithrax helps Guardians stop Eramis in stealing Outbreak Perfected.	Character event in repeatable mission	Bungie	111	5	2	96%
18	The Drifter's reactions in Gambit to Guardians siding with him or the Vanguard	NPC Dialogue during PvP match	Bungie	103	13	2	89%
19	The solving of the Corridors of Time puzzle.	Community Event Puzzle	Bungie	92	15	11	86%
20	Sparrow Racing League	Seasonal event	Bungie	92	18	8	84%
21	Guardians kill The Fanatic again (The Hollowed Lair)	Strike Boss Death, explained	Bungie	94	22	22	81%
23	Climbing to the top of Felwinter's Peak to get a fragment of SIVA	Exploration	Bungie	79	24	15	77%
24	Randal the Vandal	NPC named by community	Mixed	74	30	14	71%
34	"the helmet stayed on"	Disputed Lore event	Bungie	66	37	15	64%
25	"Bagel"soloing Shattered Throne at 999, and Savathûn's response	Specifc player causing narrative response	Mixed	64	36	18	64%
26	The Witch Queen Reveal Trailer	A Trailer	Bungie	70	45	3	61%
27	Completing the weekly Escalation Protocol	Weekly Event	Bungie	65	46	7	59%
28	Your last Crucible Match	A PvP match	Bungie	51	60	7	46%
29	The Loot Cave	Exploit, patched and referenced	Mixed	51	61	6	46%
30	Guardians kill Braccus Zahn again (The Arms Dealer)	Strike Boss Death, unexplained	Bungie	51	61	6	46%
31	The community farewell party on the Farm, days before Beyond Light's release	Community Event	Not Bungie	43	58	17	43%
32	"Wolves Unleashed": When Lord of Wolves dominated the Crucible.	Weapon imbalance	Mixed	41	65	12	39%
33	You, the player in front of your screen, controlling your guardian	The player themselves	Not Bungie	43	69	6	38%
34	Caiatl taking over the official Destiny Twitter account and tweeting in character	NPC talking on Twitter	Bungie	29	78	11	27%
35	12 man raids	Bug	Not Bungie	26	87	5	23%
36	Another Telesto bug being found, Telesto being disabled.	Weapon Bug	Mixed	19	96	3	17%
37	The Devils' Lair strike getting re-added into Destiny 2	Reintroduction of old content	Bungie	16	94	8	15%
38	AFK-farming Forges for loot and lore	Exploit	Not Bungie	9	104	5	8%

are not even necessarily wholly considered canon with any kind of response. Player versus player (PvP) content, too, is quite mixed. E28 and E32 both are around 40% and both are events that took place in PvP content. E18 is also in a PvP activity, yet is purely dialogue, and has much higher canonicity, indicating that participants were conflicted in whether they considered player activities canon. The players themselves, outside the screen (E33) with 38% is further showing this, but it might also be considered surprisingly high because it is explicitly asking of something outside the digital. Yet, as we will see in the interview responses, there are reasons for this.

The 5 events that have below 30% in perceived canonicity have common themes: 3 of them can be considered exploits or bugs (E36, E38, E35), a Twitter event (E34), and a re-implementation of a mission activity in Destiny 2 from Destiny 1 (E37). The Twitter event is the most curious one as it breaks with the idea of authorship being key: The twitter messages were undisputably authored by Bungie, and yet the canonicity is so low. The interview responses can help illuminate this.

5 INTERVIEW RESULTS

The interview participants were shown a table similar to table 3, and asked what they thought of these percentages[11]. The fully canonical events (>90%) in the survey, none of the participants had any issue with, outside of a few confusions on some of them being lower than others (E16, for example being not 100%). The key results come in when we reach the more conflicted percentages.

The interview results will now be discussed in detail. For an overview of what participants considered canon in general, refer to Table 4, which shows the summmarized arguments of the participants, for and against events being canon.

5.1 Canonical Bugs and Exploits

The Loot Cave (E29) is an example of an exploit that the developers later recognized by implementing changes into the game. It is important to mention that after the survey, Bungie released a much more convincing and comprehensive narrative response on the loot cave than had been done prior to the survey, and thus in the interview, participants responded differently to this event, saying that "now" it would probably be higher on the survey percentage. The reasoning for this is telling: *"It was responded to by Bungie"* (P12[12]). There now exists a plotline and a fictional character that references the Loot Cave, and this, in fact, makes it "more canon" (P3). Some participants would agree that the loot cave was not canon at the time of the survey, because it was *"just a bug"* (P5) or *"initially it was just an exploit"* (P7), or *"more like an easter egg than a canon thing"* (P9) at the time, and felt less like it belonged to the fictional world. Bungie's response, and the *quality* of this response, thus seems to have a large impact, as no one in the interview tried to argue strongly for it now not being canon. Another curious example of the same is Telesto (E36, 17%), which is a gun that is infamous for causing bugs. The fact that it was a bug is enough to make some question it: *"yeah, uh, technically the bugs aren't canon..."* (P8). However, during the first week of the interviews, an event in Destiny 2 changed their perception. Interview participants mentioned how Telesto bugs event would probably have a higher canon percentage now. Similar to the Loot Cave, there was a response. P7 said *"I think Telesto bugs are now canon as Telesto has indeed taken over the game. We can no longer ignore it. It has happened"* and P7 said *"Honestly I feel this has happened so many times that I would probably say it is canon"* (P7)[13]. Similar things were said about the Loot Cave: *"I guess that makes me think of it as canon, is like it still feels like basically if you mention loot cave in*

[11]As the interviews were recruited for in the same communities, the same narrative skew shown in the survey can be assumed for these participants.

[12]Participants in the interview section are referred to as P1-15.

[13]Both of these examples of the Loot Cave and Telesto, furthermore, are prime examples of why perennial games cannot be investigated in snapshots and must be considered as happening over time.

Table 4. Table displaying the arguments for and against any event being canon. These arguments are not about a specific event but condensed from all arguments the participants gave.

Arguments For	**Arguments Against**
- Bungie responded to it/acknowledged it.	- Bungie have not responded to it/acknowledged it.
- I can think of an in-fiction reason why/how this could happen.	- it breaks character that is otherwise established.
- There is plot/lore/characters explaining this.	- it is not explained by the characters/plot/lore.
- It is entirely in the game.	- it is outside the game.
- it affected everyone.	- it was just a single player's experience.
- it has happened so many times.	- it is just a bug/exploit/easter egg and those are not part of the story.
- it is consistent with the established rules of the world.	- the reasoning for this is entirely outside the world of the game.
- it is entirely done by real people.	- it is only done by people.
- It fits in the open world as something that just exists.	- as a separate mission it does not make sense.
- we learned lore-relevant details from this.	- it does not "feel" canon.
- the repetitions can be seen as a retelling/have other explanations	- the repetition does not make sense, happens out of time with the rest.
- it is known by everyone.	- it is marketing material, which feels outside the reality of the game.
- this character has an established ability to break the fourth wall.	- this character does not have an established ability to break the fourth wall.
	- it is only gameplay-relevant and does not fit in the narrative world.

relation to Destiny, people know what you're talking about. And that to me makes it feel like canon" (P1). However, participants hesitated to call E36 canon even now, as it felt less canon than the loot cave. P12 said it *"was more of an obvious, like 'we messed up in the coding'..."* or P10 hesitated because there was less fictional evidence: *"I think it requires an NPC to acknowledge an issue for it to be considered canon"*. As P11 said *"it's not a story thing but it definitely happened"*.

5.2 Players in the World

E31 was a community-run party and not organized by Bungie. No in-game information informed about the reasoning for this party and it was entirely organized on Reddit. Thus, to many interview participants, these factors both contributed to agreement that this farewell party was not canon, highlighting again how Bungie's response matters. However, P7 did argue this was canon, for a reason that echoed through some other responses: *"it could very well just be canon because a lot of the storytelling of the game is kind of around what players do as well, as much as like the actual narrative of the game"*.

We can see similar responses to E33, which asked whether participants thought they themselves, as the player in front of the screen, were canon. To some, this made perfect sense, as *"I am part of the story. [...] your guardian is part of the story, so you are part of the story, so you are indeed canon."* (P11). Some participants (like P3 or P15) also mentioned that there are indications of fourth-wall-breaking references to a "Player" in Destiny, that indicates some characters' awareness that there is an entity outside the screen. However, other interview participants said the opposite: *"I am not canon. I do*

not exist" (P6) or *"I don't think you holding the controller makes you the guardian"* (P10). But, as P6 elaborated *"I mean that comes down to how we view our character right?"*.

We can also see this dispute in whether the Player versus player (PvP) activities were considered canon (E28, E32). To some, it was undisputably so, as PvP matches are explained and have reason for happening: *"The Crucible is just to train Guardians, right [...] it has to be canon"* (P5) or *"I think all of The Crucible matches are televised to the Last City. And they happen. And I don't see any reason why not. Seems to be a very well established piece of the canon."* (P9)[14]. However, even so, some participants who acknowledged this said that an individual match itself might not be canon. As P13 said *"playing PVP in Destiny just doesn't feel like interacting with the story particularly, or the world so much. [...] it slots more into the like part of my brain that played a lot of Counter-Strike in the 90s and not the part that has been playing Destiny obsessively the past few years."* (P13) or simply *"it seems out of place on a like "is this Canon [list]?" . [...] it's just like, uh, it's not story related."* (P11). The narrative, furthermore, does not react to any individual player action in a game in a meaningful way, as P8 mentioned: *"I know they made it so that they made canon lore about the characters in the game going [to the Crucible]... but I'm not sure about individual characters, because there are, you know, so many Guardians"*. Said succintly, *"Had the question been "The Crucible" I would consider it canon. But it's "My Crucible match". I don't consider that canon."* (P4).

One player activity everyone agreed was not canon, though, was AFK Farming (E38), which also had the lowest percentage in the survey. No participant supplied arguments for this being canon, only against, even those participants who considered player's activities as canon in general. This was because of how "acting out of character" (P3) this activity felt. As P3 put it *"it feels like going to a marathon and playing Scrabble on the side until the marathon time runs out. Like, why would you spend all the time signing up for a marathon and then play Scrabble? It doesn't fit"*. Participants saw the activity of AFK farming as so incongruous with what Guardians (players) were "supposed" to do in the game, to the point some participants did not consider this "playing the game" (P5, P6) that it could not possibly be canon, despite players—and even some participants themselves admitting to—doing such activity.

5.3 Outside the Game

Another element of contention were events that happened primarily outside the game. The fact that it happened outside was enough reason for some to consider it not canon. A character talking on Twitter (E34) thus was argued as not canon: *it's out of game so it's a little—seems a little not canon* (P10). Some participants nuanced this, though, and said that *this* character talking on Twitter was not canon, but another character doing so *was*—because of differences in how those characters are perceived. The other character has through many lore examples shown tendencies to want to "break out" of the fictional universe of the game (and also was an example of one talking directly to the player and not the player character), and thus her presence on Twitter was more readily accepted than the character mentioned on the survey[15].

A trailer for an expansion of the game (E26) was conflicted because players either saw what happened in the trailer as happened verbatim (or plausible to have happened), yet others were less sure it was as depicted. Even so, some of those participants still saw it as canon: *"I think it's metaphorical, but at the same time I guess you could say it's canon because it's set on her Throne World"* (P9), or that it was *"lore friendly"* (P10) and thus they could see it as canon. P1 though, struggled to see the trailer as canon because of its purpose as marketing material: *"the marketing*

[14]PvP matches (called "Crucible matches") are explained as training matches for players, and are in fact said to be televised as sports to the average citizen on Earth in Destiny's fiction.
[15]The second character, Savathûn, had not been on Twitter at the time of the survey [70].

stuff doesn't feel canon to me compared to like things that happen in the game [...] If we're treating the game is like a reality, the marketing stuff doesn't feel like it goes anywhere".

Encapsulating almost all of these, is the response to E25. This was an action by a single player, prompted by lore, yet only got a lore response outside the game. P15 was conflicted, saying they had no doubt *"Bagel did the work"* and wanted to acknowledge that as canon, but because there was only a response posted on Bungie's blog, where developer news updates go, it was a little more difficult for them to wholeheartedly accept it as canon. As P4 said *"I wouldn't consider it necessarily lore because nothing happened in the game that affected everyone"*. Yet, others argued that the existence of the response itself—even outside the game—made it canon. And furthermore, the existence of the prompt—a taunt by a villain—established that action as *"within the rules of the universe"* (P6) and thus canon.

5.4 Repetition and Readdition

Repetition was another conflicting topic for participants. Some participants noted the difference between E30 and E21 as making sense—as they knew there was a fictional explanation for E21's repetition. Some participants acknowledged that the repetition of activities like strikes was confusing narratively, and had varying responses, either apathy *"it's just because it's a video game"* (P13) or *"part of the suspension of disbelief"* (P9), or just questioning *"the canon on strikes doesn't make a whole lot of sense to me"* (P10). P3 tried to offer plausible explanations, such repetitions being a retelling, a parallel universe, or a overwriting of how it happened originally, and either way, it was unquestionably canon (these three examples were all from P3, showing how some players have thought about this in detail). Others nuanced between different repeating activities, a singular mission repeating made less sense to them than an open world activity. *"I guess it's because it's open world-y, and you know... it's understandable that we'd have to consistently go back and repeat that activity"* (P10). P14 argued for a certain activity being canonical in repetition *"because Ana [a character] gave you stuff every single week and she told you like 'yeah you're doing a good job cleaning up out there' I guess."*—whereas other repeating activities might not do so.

The re-addition of an old strike from Destiny 1 in Destiny 2 (E37) was uncertain for most interview participants, as many had no strong arguments either way. *"I would think it would be as canonical as us killing Braccus Zahn again [E30]"*, said P13. As P10 said *"what's the significance of that? [...] I don't know [...]. They had more space maybe"*. Yet, some players paused over the fact that the strike had changed in an expansion in Destiny 1, a change that was not brought into Destiny 2, and thus they were less sure what to make of it. P14 mentioned how there had been no fictional reason for it being brought back (something Bungie has done for the removal and access of other areas in Destiny's past) and thus considered this re-addition not canon.

5.5 Canon as More Than a Binary

Throughout many of these responses many participants discussed canon not as a direct binary of canon or not canon, but moreso as a spectrum. Something could be "more canon" or "less canon". New story-relevant information about the Loot Cave (E29) made it "more canon", not just "canon". It was not the case that E21 was canon and E30 was not; E21 felt "more canon" (P3, P6) than E30. Participants were several times hesitant to put an exact label of canon or not canon on an event (now that they were not bound by the survey's binary) and discussed arguments both for and against, sometimes landing in an uncertain territory, as seen in repetition or the Twitter responses (E34) or E37.

Some interview participants also defined canon for themselves during the interview, which is worth highlighting: *"...when I think about things that are canon, I think of story events that have happened..."* (P6), or *"I define it as ... like, in the story. Or in the lore, like, you know, explained somewhere*

(P11). Many participants identified a clear distinction between a or "metastory" and the fictional "story". *"So like you've got the in-game narrative [...] And you've got the narrative which is things that happen that people do in the game that makes a story. Like the Loot Cave [E29] I'd describe as such because it's people doing stuff in the game that makes a story that isn't a direct narrative as part of the game."* (P3) Several participants were able to reason about this difference and brought it up, using slightly differing terms yet nevertheless talking about a similar concept. *"The narrative the community itself forms and it—that forms around the game [...]. In the same category would be the farm farewell party [E31], which is like events that people do that just are part of the whole storytelling the community has around the game, rather than the game itself"* (P7). P8 explicitly called this *"community canon"*. Some participants, too, like P9 saw an event as being able to happen in both, as a change in the efficacy of a weapon in PvP (E26) could both be seen as a shift in the "meta" of the game, but could also be fictionally explained as the fictional rules changing what was allowed and not allowed in the Crucible matches: *"Shaxx [the character in charge of the Crucible] would have gone 'no you can't use this it's too powerful stop it. It's ruining the games for everyone'"*. P3 agreed, but did acknowledge that this was an assumption they were layering on top, and not an explicit in-universe explanation[16]. Some participants also mentioned personal events, such as a single player completing a dungeon in E16 or individual PvP matches were canon "for them", as in, for that specific player, and defined a difference between canon in a universal sense and in a personal sense. P2 said *"I guess I would say that, yeah, my last Crucible match is canon to the way that I play Destiny but I don't think that it is canon to the story"*. Players might have their own canon of their experience, a canon of the community, and the story, and they do not necessarily all overlap.

6 LIMITATIONS

As is evident from the narrative interest results, the sampled participants are skewed towards people interested in the narrative aspect of Destiny. This is not necessarily an indication of the general narrative interest of the whole Destiny player population, but an effect of the recruitment. Therefore, while these findings are not generalizable to the entire playerbase of Destiny, they present useful data to understand how narratively engaged players engage with canon.

We asked for memorable or favorite moments, which leads to reporting of dramatic experiences, which most often occur during raids (a very dynamic part of Destiny as an experience). Raids are an activity that is always authored by Bungie and are repetable[17], and therefore certain codes in other dimensions are less likely to be present since they do not apply to raids. This results in raids to have higher representation in the data set and thus likely to have introduced some skew into the coding results. There also lies a limitation in the predetermined events, as this is not a complete list of all events in Destiny's history that could be considered canon, and thus may miss some potential categories. It was also more skewed towards narrative events, and there could have been more events that were likely to not be considered canon, such as fanfiction or individual gameplay moments.

Finally, as a study of canon in perennial games, Destiny is only one game, with a very specific relation to canon. Destiny's storytelling and gameplay affords and allows players certain kind of readings of what is canon and not canon, which cannot be said to be universal across all perennial games. We argue that the relationship we are describing between canonicity and authorship is likely to be generalizable to other games as it is done through storytelling methods other games can or are taking advantage of, i.e. cutscenes, dialogue, item descriptions, etc. However, it is important to

[16]However, there are a few lore entries signifying this as what is happening, see https://www.reddit.com/r/DestinyTheGame/comments/swe8ix/theyve_made_the_stasis_crucible_nerfs_canon/. P10 mentioned they heard about this.

[17]Generally. Completing a raid on the first day of its release is not repeatable as there are unique rewards tied to this. If a participant mentioned completing a raid on "Day 1" this was coded as specific, not repeatable.

reiterate that there are components that are somewhat unique to Destiny. Specifically, how Destiny's shapes its relationship to the players as part of its narrative, and its constistent commitment to making even innocuous player activities part of the authored canon.

Future studies of canonicity in other games, as well as how authored narrative is related and conveyed to the player, will allow for a more direct comparison and contrast with Destiny and supsequently enable a more nuanced study of canonicity in games.

7 DISCUSSION

Each research question will now be discussed in order.

7.1 Authorship Impacts Canonicity Strongly

There is a very strong correlation between authorship and perceived canonicity ($p < .001$). However, this is complicated by several factors. All code dimensions correlated with canonicity, which points to the larger theme that any activity in Destiny is highly dependent on many factors, and it is not so easy to separate the authorship or the type of event nor say it is *exclusively* authorship that determines canonicity. From the interview responses, Bungie's authoring of an event was a frequent argument and important to their reasoning one way or the other. However, there were exceptions to this, including how out-of-game authored events had several arguments raised against them, and repetition that participants could not narratively explain which were difficult to fully embrace as canonical.

There *is* a strong relationship between whether something is considered canon and whether it is authored by Bungie, however, we cannot definitely say that authorship equates with canonicity for players. But it's important to consider that if something is not authored by Bungie it requires a substantial amount of investment or reasoning from players to be accepted as canon, either to the point where Bungie eventually does acknowledge it (i.e. Telesto, The Loot Cave) or under the assumption that all player activity is by default canonical. Authorship can thus be seen as having a strong impact on perceived canonicity, but it is not the only factor one must consider.

7.2 Traditional Storytelling Is More Likely to Be Accepted as Canon

Traditional storytelling events are more often than not considered canon. When asked for narrative events, participants provided events they consider to be canon in all but 6% of cases (section 4.3.4). The events that are clearly traditional storytelling, such as lore or cutscenes or campaign missions, are strongly considered canon. However, other less traditional elements are much more conflicted, and not necessarily wholly non-canonical. Elements such as trailers or Twitter accounts overtaken by fictional characters are not as clear-cut as either canon or not, and the personal out-of-game events are equally split. It is clear that not all participants consider the boundary of the digital game to be the determinant of canonicity, but some still use it as an argument against. Yet, E8, which was a narrative text not found in the game, was considered entirely canon and no interview participants disputed this. This text, though, is similar to many of the existing lorebooks from the game, in contrast to the authored elements of E34 or E25, which were both rather unique and unlike other elements in Destiny's storytelling. Thus the *form* of the content also seems to matter.

The Loot Cave (E29) and Telesto (E36) are perhaps the strongest examples here, as the introduction of more traditional storytelling elements made argument for its canonicity stronger in the interviewees' minds. Therefore, like section 7.1, traditional storytelling methods can be said to have a strong impact on perceived canonicity, yet it cannot be said to be exclusively the factor. In fact, The Loot Cave (E29), Telesto (E36), and Randal the Vandal (E24) are all examples of events that started as community action or happenstance, un-authored event, and were in various stages of being acknowledged by the developers. The data shows how these additions make the original event

more accepted as part of the canon. E24 is the most accepted, as a character the developers have reintroduced multiple times, and then the E29, as it during the survey had started to be accepted as canon, and in the interview it was almost fully accepted. And then finally E36, which was not at all accepted as canon in the survey, yet the live event that happened during the interviews was actively adjusting perspectives as the interview happened.

That which is least likely to be considered canon is that which the players can find no plausible explanation for. Interview participants had no strong arguments for bugs and exploits like AFK farming (38), 12 man raids (E35), the unexplained re-addition of an old strike (E37) or a character inexplicably talking on Twitter (E34). Thus again, the negative for this question showcases its potential: That which is *not* traditional storytelling requires more effort to accept as canon.

7.3 Repetition Can Be Canon if Explained

The most critical part to highlight for the question of repetition is the difference between explained repetition and non-explained repetition. The difference between E21 and E30, as already highlighted, is a striking example of how the explanation of repetition helps convince many of its canonicity. Even smaller acknowledgments, such as E27 (which is merely a character thanking the player for another week of service) helped convince a participant of its canonicity, and thus it does not require *a lot* of explanation for players to be bought in. On the other end of the spectrum are events like E9 or E13, which were also repeated week-by-week, but were wholly accepted as canon without question because their repetition was part of the narrative structure. It is thus possible to make repetition canon, and so it is not merely the *act* of repetition that causes it to be considered non-canonical, but rather unexplained repetition. Even that, however, was often accepted as a "part of the game" or part of "suspension of disbelief" and therefore not something most players considered a vital flaw to their enjoyment of the narrative.

PvP, another repetitive activity, is an interesting case study for Destiny. In the favorite events, no one who mentioned PvP thought these events were canon. Yet, for the predetermined events, players in general were a lot more conflicted (E28, 46% canon). E25 is dialogue spoken during a PvP event, and this has a much higher canon percentage than the activity itself, indicating that while canonical things can happen during PvP, the activity itself might not be considered so. As mentioned (section 5.2), Destiny itself calls out the PvP activities within the lore, and while the interviews show that some do acknowledge Destiny's lore descriptions, PvP activities do not "feel" canon, or feel out of place from the rest of the storytelling—they are not traditional storytelling. Many of the arguments that make it canonical exist *outside* the mode itself, in lorebooks and extraneous character interactions. While playing PvP, it is not directly evident, and mostly presents itself as something that is often *not* canon.

Another crucial aspect to this is whether players consider themselves canon. Both viewpoints were strongly articulated, from *"anything a guardian does is canon"* to *"I do not exist"*. This, as P6 mentioned, *"comes down to how we view our character, right?"* More pointedly, though, the reason why participants did not consider incongrous, repetitive player activities like AFK farming (E38) to be canon is fascinating. The idea that it broke with what they were narratively "supposed" to do indicates that players have a sense for how they are "supposed" to act, almost as a soft kind of role-play, and breaking that cannot be conceived of as part of the story, even in a game where innocuous players actions are frequently canonical.

7.4 The Arguments For and Against Canonicity

Here we can refer directly to table 4 for discussion. Participants often brought up arguments both for and against their own opinions, or were uncertain themselves. Or reversely, two participants might argue strongly with a similar point but reach opposite conclusions. Many of the arguments

tend to be looking towards an authority or an authored proof that it has been established as canon and will argue against when not finding such evidence. More nebulous are the arguments about the internal sensibility of the world, and that it does not "feel" as much part of the world and thus is less canon, despite evidence to the contrairy. This feeling of looking for an internal consistency they cannot find permeates many of the arguments against, while the arguments for are often based on previous evidence or facts that prove something as canon. Canonicity is thus often something *proven*, in cases where it is uncertain, rather than *disproven*. Many of the arguments against, such as feelings or general attitutes towards the canonicity of PvP or exploits was only argued to be canon by those who had solid evidence of the opposite, often provided by the author but that did not always have to be the case. It is, however, assumed and seen as irrelevant to argue for in cases where it is a clear act of storytelling by an author, such as seen in the majority of the highly rated canonical events (E1-19). The fact that no participant tried to argue against any of these is telling. It should be noted that "it was done by real people" was used as an argument both for and against something being canon, and it thus dependended on the participant's view of the player character and themselves in relation to the canon. Different participants landed on different sides of this debate, and there is no easy way to consider it. Destiny intentionally confuses this debate by subtly mentioning the player as an existing entity without ever making it explicit. One participant also mentioned how Bungie has a history of including the player in their storytelling, as they did so in their previous game "Marathon" [12] and this could then be an argument for these subtle hints being proven true.

What is important to keep in mind with all these answers, however, is that the participants themselves often intentionally avoided the binary assumed in this study. As participants often argued for "more" or "less" canonicity, the assumption posed in the survey (that an event is viewed as either canon or not by players) should most likely be re-evaluated. This echoes the theoretical perspectives of canon from previous fandom studies, see section 2.3, and it seems that the average, story-focused player of Destiny implicitly already accepts similarly nuanced understandings. The understanding of various "kinds" of canon, as either the authored story or a "community canon" should also be mentioned in this purview. Several participants were able to effortlessly distinguish between several kinds of canon, with various levels of overlap. They also had no complications introducing the concept of a canon without an author—a concept otherwise rarely discussed in storytelling. These two kinds of canon show strong parallels with the two layers framework of mythological storytelling discussed by Larsen and Carstensdottir [61], indicating that players might already be thinking in similar terms, albeit using a different vocabulary.

What is important to keep in mind with all these answers, however, is that the participants themselves often intentionally avoided the binary assumed in this study. As participants often argued for "more" or "less" canonicity, the assumption posed in the survey (that an event is viewed as either canon or not by players) should be re-evaluated. This can be seen in the understanding of various "kinds" of canon, which several participants were able to effortlessly distinguish between, with various levels of overlap. They also had no complications introducing the concept of a canon without an author. This echoes the nuanced, theoretical perspectives on canon from previous fandom studies, see section 2.3, and it seems that the average, story-focused player of Destiny already implicitly accepts similarly nuanced understandings.

8 DESIGN IMPLICATIONS

The findings highlight key design implications for perennial games, specifically as it relates to player community understanding of canon and how designers can take shape and advantage of this understanding to engage their players.

Understanding of canon, is especially important when it concerns the manner designers convey information to players, as this impacts both the player experience and understanding of the canon. If, for example, a designer wishes to design an element to be undisputedly part of the narrative world, our findings indicate that this information should be conveyed through conventional storytelling methods such as cutscenes and character dialogue. Trying to push that information unconventionally, e.g. on Twitter or on a website, will not be conducive to players implicitly reading it as part of the storyworld. The data supports this; players are more likely to agree on the veracity of events if told through more traditional methods (over 96% agreement). This is especially relevant for contexts such as educational or serious games where information conveyed as part of the narrative should not be put into question, as that could be potentially harmful.

Inversely, if designers wish to encourage discussion within their community and active engagement with the story, leaving elements more open to interpretation through non-conventional storytelling methods and leaving intentional gaps is very helpful to encouraging that discussion. Bungie's intentional use of canonical repetition in repeatable activities causes players to more carefully consider the narrative elements present in those activities, whereas it otherwise might have been ignored. Their engagement with the fans both in the game and outside, through Twitter and blog posts, is an intentional part of the experience, and doing this leads to the community engaging in active discussions on canonicity, as seen in how participants could provide nuanced arguments on the canonicity of many events. This has the positive implication that players feel a more active engagement in their experience of the story. However, this can also be a challenge as if players seek explanations for incongruous details and cannot find them, it can lead to them merely being confused, as was the case for the readdition of old strikes (described in section 5.4). Vague information or gaps should be handled with care and the way they are understood is dependent on the framing and execution of their design. Further discussion of the specifics of such designs is outside the scope of this paper.

If designers want to engage more directly with the community, our findings suggest that paying attention to the community and responding to their activities and discussions, and incorporating them into the narrative is a great way to make the players feel included in the narrative of the game. For example, how Bungie responded and iterated on the Loot Cave showed a positive reaction in almost all participants. P6 said: *"it feels like you're seen. Like the community is seen"*. This enables players to feel as if they are an active part of the construction of the story. Our findings suggests that players thought this worked best when adapted as part of the fictional reality, e.g. spoken by the characters, as this was when participants could most strongly connect to it. This requires developers to keep a close eye on what the community is doing and such reactions are best done improvisationally. This can be a challenge for a live development schedule, but the results for the community can be well worth it as our findings indicate this leads to some of the most memorable parts of the experience for players.

Our findings show that it is possible for designers to frame complicated elements such as PvP combat and repetition as canonical. In giving players in-world explanations for repetition, some players will notice this and consider their actions within this canonical, which will reflect back on their understanding of their own presence in the world in powerful ways. However, it is not necessary to do this, and players are already adept at accepting canonical "breaks" caused by repetition or gameplay convenience, as they understand the reasons for these elements, as this is the default.

Finally, Destiny's focus on including player actions is a powerful tool that other designs could take more advantage of. As P7 said *"a lot of the storytelling of the game is kind of around what players do as well"* The fact that 38% of participants considered their own selves outside the screen part of the world might seem like a low number, but the fact that a third of players even can think

in these terms shows that Destiny is somewhat successful in its attempts to draw in the players into the canonical narrative to a high degree. This makes players feel like they are not merely part of the story but inside it, turning their everyday activities more meaningful.

9 CONCLUSION

Understanding the canon is a common part of the fan experience of any media. But how this is discussed in perennial games, where the players are all actively participating and acting within this canon while also breaking it is important because this discussion is crucial to shaping the community and what the storytelling experience is about. This paper presented a study of how players perceive the canon of Destiny, with a mixed methods approach using both an online survey and interview to understand what events players consider canon and why. The study shows that authorship strongly impacts what players generally consider canon, and the exceptions. Events conveyed through traditional storytelling were strongly correlated with perceived canonicity, while experiences such as Player versus Player content or out-of-game experiences were much more conflicted, and depended on how players saw their own presence in the game. Repetition could be seen as canon if players were provided with a suitable reasoning for this repetition, but unexplained repetition by itself was often seen as a negative. Players also provided a much more nuanced view of canonicity than a pure binary, and were able to consider both canon as a spectrum and multiple kinds of canonicity existing at the same time. These results can be used to better understand the player experience of perennial games, and the impact authorship has on player's perception of their worlds and the communities that form around them. The discussion of the canon is a common part of the player experience of perennial games and helps form the community, and as such, understanding how developers can influence that through the properties of their game can be vital to improving the player experience, to create more inclusive experiences, and experiences that lets players see themselves in the work.

Future work in this area includes a better understanding of canonicity as a more nuanced concept than a binary, as suggested by the interview participants. A comparison with how canonicity is seen in other perennial games, and other non-perennial games, would also be of much value, to see how much Destiny's specific design decisions compare to other games.

ACKNOWLEDGEMENTS

The authors would like to thank Colin Wheelock and Kendra Shu for their help in the earliest stages of this work, as well as all of the Destiny players that participated in the survey and interviews.

REFERENCES

[1] Kent Aardse. 2013. Alternate Reality Games, Narrative Disbursement and Canon. *Fan CULTure: Essays on Participatory Fandom in the 21st Century* (2013), 106–117.

[2] Miriam E. Armstrong, McKenna K. Tornblad, and Keith S. Jones. 2020. The accuracy of interrater reliability estimates found using a subset of the total data sample: A bootstrap analysis. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 64, 1 (2020), 1377–1382. https://doi.org/10.1177/1071181320641329 arXiv:https://doi.org/10.1177/1071181320641329

[3] Stef Aupers. 2015. Spiritual play: Encountering the sacred in World of Warcraft. *Playful identities* (2015), 75.

[4] William Sims Bainbridge. 2012. *The Warcraft civilization: Social science in a virtual world.* MIT Press, Cambridge, MA.

[5] Kevin D Ball. 2017. Fan labor, speculative fiction, and video game lore in the" Bloodborne" community. *Transformative Works and Cultures* 25 (2017).

[6] Richard A Bartle. 2004. *Designing virtual worlds.* New Riders, 201 West 103rd Street, Indianapolis.

[7] Steve Benford and Gabriella Giannachi. 2008. Temporal trajectories in shared interactive narratives. In *Proceedings of the sigchi conference on human factors in computing systems.* 73–82.

[8] Jim Bizzocchi and Theresa Jean Tanenbaum. 2012. Mass Effect 2: A case study in the design of game narrative. *Bulletin of Science, Technology & Society* 32, 5 (2012), 393–404.

[9] Blizzard Entertainment Ltd. 2004. World of Warcraft.

[10] Tom Boellstorff. 2015. *Coming of age in Second Life.* Princeton University Press, Princeton.

[11] Tom Boellstorff, Bonnie Nardi, Celia Pearce, and Tina L Taylor. 2012. *Ethnography and virtual worlds.* Princeton university press, Princeton.

[12] Bungie. 1994. Marathon.

[13] Bungie. 2017. Lore Tab of the Electronica Ghost Shell. Lore entry on Ishtar, https://www.ishtar-collective.net/entries/electronica-shell, as well as in Destiny 2. It describes Guardians (players), and how frequently they dance. A collection of similar entries has been collected on reddit at the following link: https://www.reddit.com/r/DestinyTheGame/comments/swe8ix/comment/hxlrgoj/.

[14] Bungie. 2018. 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..

[15] Bungie and Activision. 2014. Destiny.

[16] Bungie and Activision. 2017. Destiny 2. As of 2019, Activision is no longer affiliated with Destiny (https://kotaku.com/bungie-splits-with-activision-1831651740).

[17] Diane Carr. 2012. Interpretation, conflict and instruction in online multiplayer games: Lessons from Warsong Gulch. In *Computer Games and New Media Cultures.* Springer, 411–424.

[18] Anne Elizabeth Carroll. 2016. *Identity within destiny: Virtual selves in virtual worlds.* Master's thesis. University of Colorado Denver.

[19] Keidra Chaney and Raizel Liebler. 2007. Canon vs. fanon: folksonomies of fan culture. *Massachusetts Institute of Technology.–2007* 9 (2007), 2014.

[20] MJ Clarke. 2014. Branded worlds and contracting galaxies: The case of Star Wars Galaxies. *Games and Culture* 9, 3 (2014), 203–224.

[21] Jacob Cohen. 1960. A coefficient of agreement for nominal scales. *Educational and psychological measurement* 20, 1 (1960), 37–46.

[22] Helena Cole and Mark D Griffiths. 2007. Social interactions in massively multiplayer online role-playing gamers. *Cyberpsychology & behavior* 10, 4 (2007), 575–583.

[23] Hilde Corneliussen and Jill Walker Rettberg. 2008. *Digital culture, play, and identity: A World of Warcraft reader.* MIT Press.

[24] Hilde Corneliussen and Jill Walker Rettberg. 2008. *Digital culture, play, and identity: A World of Warcraft reader.* MIT Press, Cambridge, MA.

[25] Lars De Wildt and Stef Aupers. 2017. Bibles and BioShock: Affording Religious Discussion on Video Game Forums. In *Proceedings of the Annual Symposium on Computer-Human Interaction in Play.* 463–475.

[26] Kate M Donley et al. 2017. Early Sherlockian scholarship: Non/fiction at play. *Transformative Works and Cultures* 23 (2017).

[27] Anders Drachen, James Green, Chester Gray, Elie Harik, Patty Lu, Rafet Sifa, and Diego Klabjan. 2016. Guns and guardians: Comparative cluster analysis and behavioral profiling in destiny. In *2016 IEEE Conference on Computational Intelligence and Games (CIG).* IEEE, 1–8.

[28] Christian Drescher, Guenter Wallner, Simone Kriglstein, Rafet Sifa, Anders Drachen, and Margit Pohl. 2018. What Moves Players? Visual Data Exploration of Twitter and Gameplay Data. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (Montreal QC, Canada) *(CHI '18).* Association for Computing Machinery, New York, NY, USA, 1–13. https://doi.org/10.1145/3173574.3174134

[29] Lynn Duffy. 2017. Holmes and his Boswell in Cosplay and Roleplay. *Sherlock Holmes in Context* (2017), 101–114.

[30] Brianna Dym, Jed Brubaker, and Casey Fiesler. 2018. theyre all trans sharon": Authoring gender in video game fan fiction. *Game Studies* 18, 3 (2018).

[31] Astrid Ensslin and Eben Muse. 2011. *Creating second lives: Community, identity and spatiality as constructions of the virtual.* Routledge.

[32] Epic Games. 2017. Fortnite.

[33] Evan1997f. 2021. Every Single Time Telesto BROKE Destiny. Youtube video, explaining the recorded bugs of Telesto, as of 21st of September, 2021. https://www.youtube.com/watch?v=9fr_FJPzAvE. Accessed 15th of February, 2023..

[34] Casey Fiesler, Shannon Morrison, and Amy S Bruckman. 2016. An archive of their own: A case study of feminist HCI and values in design. In *Proceedings of the 2016 CHI conference on human factors in computing systems.* 2574–2585.

[35] Joseph L Fleiss, Bruce Levin, Myunghee Cho Paik, et al. 1981. The measurement of interrater agreement. *Statistical methods for rates and proportions* 2, 212-236 (1981), 22–23.

[36] Jonathan Frome and Paul Martin. 2019. Describing the Game Studies Canon: A Game Citation Analysis.. In *DiGRA Conference*.

[37] Ethan Gach. 2020. They Brought Back Destiny's Loot Cave, But Not The Loot. Kotaku article. https://kotaku.com/they-brought-back-the-loot-cave-but-not-the-loot-1845638914. Accessed on 30th of April 2021.

[38] Robert M Geraci. 2014. *Virtually sacred: Myth and meaning in world of warcraft and second life.* Oxford University Press, USA.

[39] Owen S. Good. 2014. 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..

[40] Miranda Greting, Xiehui Mao, and Mirjam Palosaari Eladhari. 2022. What Inspires Retellings-A Study of the Game Genshin Impact. In *Interactive Storytelling: 15th International Conference on Interactive Digital Storytelling, ICIDS 2022, Santa Cruz, CA, USA, December 4–7, 2022, Proceedings*. Springer, 249–269.

[41] Ayse Gursoy. 2020. "We're excited to chart this unknown territory together": storytelling strategies in patch notes documents. In *Proceedings of DiGRA*.

[42] Viktor Gustafsson, Lilly Arstad Helmersen, and Wendy E Mackay. 2021. Co-Designers Not Troublemakers: Enabling Player-Created Narratives in Persistent Game Worlds. *Proceedings of the ACM on Human-Computer Interaction* 5, CHI PLAY (2021), 1–26.

[43] Viktor Gustafsson, Benjamin Holme, and Wendy E Mackay. 2020. Narrative substrates: Reifying and managing emergent narratives in persistent game worlds. In *International Conference on the Foundations of Digital Games*. 1–12.

[44] Kevin A Hallgren. 2012. Computing inter-rater reliability for observational data: an overview and tutorial. *Tutorials in quantitative methods for psychology* 8, 1 (2012), 23.

[45] Derek Hansen, Elizabeth Bonsignore, Marc Ruppel, Amanda Visconti, and Kari Kraus. 2013. Designing reusable alternate reality games. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. 1529–1538.

[46] Pat Harrigan and Noah Wardrip-Fruin. 2009. *Third person: Authoring and exploring vast narratives.* The MIT Press.

[47] Karen Hellekson and Kristina Busse. 2014. *The fan fiction studies reader.* University of Iowa Press.

[48] Phil Hornshaw. 2021. Destiny 2 Grasp Of Avarice Dungeon Is Hilariously Salty About A 7-Year-Old Exploit. Gamespot Article about the Grasp of Avarice Dungoen and how it ties to the Loot Cave. https://www.gamespot.com/articles/destiny-2-grasp-of-avarice-dungeon-is-hilariously-salty-about-a-7-year-old-exploit/1100-6499082/ Accessed 6th of June 2022.

[49] Kyra Hunting. 2012. Queer as Folk and the Trouble with Slash. *Transformative Works and Cultures* 11 (2012).

[50] Emma Jane Hutchinson. 2013. *Performative identity and the embodied avatar: an online ethnography of Final Fantasy XIV.* Ph. D. Dissertation. University of Warwick.

[51] Barbara Jedruszczak. 2016. *Identity Creation and World-Building Through Discourse in Video Game Narratives.* Master's thesis. Syracuse University.

[52] Henry Jenkins. 2012. *Textual poachers: Television fans and participatory culture.* Routledge.

[53] Ahuvia Kahane. 2016. Fan fiction, early Greece, and the historicity of canon. *Transformative Works and Cultures* 21 (2016).

[54] Athanasios Karavatos. 2017. *"WHAT IS YOUR DPS, HERO?": Ludonarrative dissonance and player perception of story and mechanics in MMORPGs.* Master's thesis. University of Skövde.

[55] Veli-Matti Karhulahti and Raine Koskimaa. 2019. Canons of Games Research: An Analysis of the Most Cited Publications. In *DiGRA'19-Abstract Proceedings of the 2019 DiGRA International Conference: Game, Play and the Emerging Ludo-Mix*.

[56] Lisbeth Klastrup. 2003. A poetics of virtual worlds. In *Digital Arts and Culture*. RMIT University.

[57] Hartmut Koenitz. 2018. What game narrative are we talking about? An ontological mapping of the foundational canon of interactive narrative forms. In *Arts*, Vol. 7. MDPI, 51.

[58] Toke Krainert. 2014. Storytelling Artifacts. In *Interactive Storytelling*, Alex Mitchell, Clara Fernández-Vara, and David Thue (Eds.). Springer International Publishing, Cham, 113–124.

[59] Tanya Krzywinska. 2006. Blood scythes, festivals, quests, and backstories: World creation and rhetorics of myth in World of Warcraft. *Games and Culture* 1, 4 (2006), 383–396.

[60] Bjarke Alexander Larsen and Elin Carstensdottir. 2021. Wrestling with Destiny: Storytelling in Perennial Games. In *International Conference on Interactive Digital Storytelling*. Springer, 236–254.

[61] Bjarke Alexander Larsen and Elin Carstensdottir. 2022. Myth, Diegesis and Storytelling in Perennial Games. In *Interactive Storytelling: 15th International Conference on Interactive Digital Storytelling, ICIDS 2022, Santa Cruz, CA, USA, December 4–7, 2022, Proceedings*. Springer, 634–650.

[62] Greg Lastowka. 2009. Planes of power: EverQuest as text, game and community. *Game Studies* 9, 1 (2009).

[63] Boris Lohmann. 2008. *Storytelling in Massively Multiplayer Online Games.* Master's thesis. IT University of Copenhagen.

[64] Enrica Loria, Johanna Pirker, Anders Drachen, and Annapaola Marconi. 2020. Do Influencers Influence?–Analyzing Players' Activity in an Online Multiplayer Game. In *2020 IEEE Conference on Games (CoG)*. IEEE, 120–127.
[65] Esther MacCallum-Stewart. 2009. 'What sort of Fish was it?'How Players Understand their Narrative in Online Games. *How Players Understand their Narrative in Online Games.'Breaking New Ground: Innovation in Games* (2009).
[66] Paul Manning. 2020. Free the code, free the world: The chronotopic "worldness" of the virtual world of Ryzom. *Language & Communication* 70 (2020), 119–131.
[67] William Miller. 2016. The Role of Spontaneous Order and Choice in Video Games: A Case Study of Destiny. *Available at SSRN 2953791* (2016).
[68] Torill Elvira Mortensen. 2008. Humans playing world ofwarcraft: Or deviant strategies. *Digital culture, play, and identity: A World of Warcraft reader* (2008).
[69] Janet H Murray. 2018. Research into interactive digital narrative: a kaleidoscopic view. In *Interactive Storytelling: 11th International Conference on Interactive Digital Storytelling, ICIDS 2018, Dublin, Ireland, December 5–8, 2018, Proceedings 11*. Springer, 3–17.
[70] Sean Murray. 2022. The Witch Queen Is Roasting Players In Destiny 2 Twitter Takeover. Article on thegamer.com. https://www.thegamer.com/the-witch-queen-savathun-roasting-destiny-2-twitter/ Accessed 16th of July 2022.
[71] Bonnie Nardi. 2010. *My life as a night elf priest: An anthropological account of World of Warcraft*. University of Michigan Press.
[72] Alex Naylor. 2016. "My Skin Has Turned to Porcelain, to Ivory, to Steel": Feminist Fan Discourses, Game of Thrones, and the Problem of Sansa. *The Woman Fantastic in Contemporary American Media Culture, Jackson, MI: University Press of Mississippi* (2016), 39–60.
[73] Derek Nichols. 2022. Destiny 2's Telesto Takes Over Twitter, Confirming Community Upcoming Event. Gamerant article. https://gamerant.com/destiny-2-telesto-community-event-takeover/. Accessed 15th of February, 2023.
[74] Marc Ouellette. 2014. Come out playing: Computer games and the discursive practices of gender, sex, and sexuality. *Computer games and technical communication: Critical methods and applications at the intersection* (2014), 35–51.
[75] Tyler Pace, Austin Toombs, Shad Gross, Tony Pattin, Jeffrey Bardzell, and Shaowen Bardzell. 2013. A tribute to Mad skill: expert amateur visuality and world of Warcraft Machinima. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. 2019–2028.
[76] Joseph Packer. 2014. What makes an orc? Racial cosmos and emergent narrative in World of Warcraft. *Games and Culture* 9, 2 (2014), 83–101.
[77] Felan Parker. 2013. Millions of voices: Star Wars, digital games, fictional worlds and franchise canon. *Game On, Hollywood! Essays on the Intersection of Video Games and Cinema* (2013), 156–168.
[78] Felan Parker. 2017. Canonizing Bioshock: Cultural value and the prestige game. *Games and Culture* 12, 7-8 (2017), 739–763.
[79] Celia Pearce and Artemesia. 2009. *Communities of play: Emergent cultures in multiplayer games and virtual worlds*. MIT press, Cambridge, MA.
[80] Ryan Perry, Anders Drachen, Allison Kearney, Simone Kriglstein, Lennart E. Nacke, Rafet Sifa, Guenter Wallner, and Daniel Johnson. 2018. Online-only friends, real-life friends or strangers? Differential associations with passion and social capital in video game play. *Computers in Human Behavior* 79 (2018), 202–210. https://doi.org/10.1016/j.chb.2017.10.032
[81] Johanna Pirker, André Rattinger, Anders Drachen, and Rafet Sifa. 2018. Analyzing player networks in Destiny. *Entertainment Computing* 25 (2018), 71–83.
[82] Nathaniel Poor. 2012. Digital elves as a racial other in video games: Acknowledgment and avoidance. *Games and Culture* 7, 5 (2012), 375–396.
[83] Yaser Norouzzadeh Ravari, Pieter Spronck, Rafet Sifa, and Anders Drachen. 2017. 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.
[84] Elzabi Rimington and Tom Blount. 2016. Lore v. representation: narrative communication of power with regard to gender in League of Legends. In *CEUR Workshop Proceedings*, Vol. 1628. 1–5.
[85] Riot Games. 2009. League of Legends.
[86] Riot Games, Christian Linke, and Alex Yee. 2021. Arcane. Netflix TV Show.
[87] Bonnie Ruberg. 2017. Permalife: Video games and the queerness of living. *Journal of Gaming & Virtual Worlds* 9, 2 (2017), 159–173.
[88] Bonnie Ruberg. 2019. *Video games have always been queer*. NYU Press.
[89] Bonnie Ruberg and Adrienne Shaw. 2017. *Queer game studies*. U of Minnesota Press.
[90] Johnny Saldaña. 2021. *The coding manual for qualitative researchers*. SAGE publications Ltd.
[91] Anastasia Salter, Mel Stanfill, and Anne Sullivan. 2019. But does pikachu love you? reproductive labor in casual and hardcore games. In *Proceedings of the 14th International Conference on the Foundations of Digital Games*. 1–10.

[92] Sonja C Sapach. 2015. The WoW Factor: A Virtual Ethnographic Study of Sacred Things and Rituals in World of Warcraft.: A Virtual Ethnographic Study of Sacred Things and Rituals in World of Warcraft. *gamevironments* (2015).

[93] Mike Schaekermann, Giovanni Ribeiro, Guenter Wallner, Simone Kriglstein, Daniel Johnson, Anders Drachen, Rafet Sifa, and Lennart E. Nacke. 2017. 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* (Amsterdam, The Netherlands) *(CHI PLAY '17)*. Association for Computing Machinery, New York, NY, USA, 143–156. https://doi.org/10.1145/3116595.3116603

[94] Michael H Schiller, Günter Wallner, Christopher Schinnerl, Alexander Monte Calvo, Johanna Pirker, Rafet Sifa, and Anders Drachen. 2018. Inside the group: Investigating social structures in player groups and their influence on activity. *IEEE Transactions on Games* 11, 4 (2018), 416–425.

[95] Michael 'Adrir' Scott. 2012. A monument to the player: Preserving a landscape of socio-cultural capital in the transitional MMORPG. *New review of hypermedia and multimedia* 18, 4 (2012), 295–320.

[96] Adrienne Shaw and Christopher J Persaud. 2020. Beyond texts: Using queer readings to document LGBTQ game content. *First Monday* (2020).

[97] Rafet Sifa, Eric Pawlakos, Kevin Zhai, Sai Haran, Rohan Jha, Diego Klabjan, and Anders Drachen. 2018. Controlling the crucible: a novel PvP recommender systems framework for destiny. In *Proceedings of the Australasian Computer Science Week Multiconference*. ACM, 1–10.

[98] Eddo Stern. 2002. A Touch of Medieval: Narrative, Magic and Computer Technology in Massively Multiplayer Computer Role-Playing Games.. In *CGDC Conf*.

[99] Jan Švelch. 2022. Mediatization of tabletop role-playing: The intertwined cases of Critical Role and D&D Beyond. *Convergence* 28, 6 (2022), 1662–1678.

[100] Marco Tamassia, William Raffe, Rafet Sifa, Anders Drachen, Fabio Zambetta, and Michael Hitchens. 2016. 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)*. IEEE, 1–8.

[101] Paul Tassi. 2018. 'Destiny 2' Players Wanted A Secret From A 999 Shattered Throne Clear, They Found A Hero. Forbes Articles. https://www.forbes.com/sites/paultassi/2019/11/06/destiny-2-players-wanted-a-secret-from-a-999-shattered-throne-clear-they-found-a-hero/ Accessed 20th of February 2023..

[102] T. L. Taylor. 2009. *Play between worlds: Exploring online game culture.* Mit Press, Cambridge, MA.

[103] Czarina Grace Del Valle. 2021. 'Destiny 2' Twitter, Facebook Taken Over by Villain Caiatl; Zavala Storyline Cutscene Leaked [VIDEO]. Techtimes article https://www.techtimes.com/articles/257864/20210309/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 acconut 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..

[104] Andrew H. Van de Ven and Marshall Scott Poole. 1990. Methods for studying innovation development in the Minnesota Innovation Research Program. *Organization science* 1, 3 (1990), 313–335.

[105] Raphael Velt, Steve Benford, and Stuart Reeves. 2017. A survey of the trajectories conceptual framework: Investigating theory use in HCI. In *Proceedings of the 2017 CHI conference on human factors in computing systems*. 2091–2105.

[106] Ana Vukadin. 2019. *What is Transmedia.* Chandos Publishing, Chapter 2.

[107] John Walliss. 2012. Stories by/for boys: Gender, canon and creativity within Warhammer 40,000 fanfiction. *Fan culture: Theory/practice* (2012), 119–133.

[108] Günter Wallner, Simone Kriglstein, and Anders Drachen. 2019. Tweeting your destiny: Profiling users in the twitter landscape around an online game. In *2019 IEEE Conference on Games (CoG)*. IEEE, 1–8.

[109] Günter Wallner, Christopher Schinnerl, Michael Helfried Schiller, Alexander Monte Calvo, Johanna Pirker, Rafet Sifa, and Anders Drachen. 2019. Beyond the individual: Understanding social structures of an online player matchmaking website. *Entertainment Computing* 30 (2019), 100284.

[110] Sarah Schaefer Walton. 2018. The leaky canon: Constructing and policing heteronormativity in the Harry Potter fandom. *Journal of Audience & Reception Studies* 15 (2018).

[111] Austin Wood. 2019. Bungie responds to Destiny 2 fourth wall theorycrafting: "let the game speak for itself". Gamesradar article. https://www.gamesradar.com/wild-destiny-2-lore-theory-suggests-players-themselves-are-main-characters/. Accessed 15th of February, 2023.

[112] Kodlee Yin, Cecilia Aragon, Sarah Evans, and Katie Davis. 2017. Where No One Has Gone Before: A Meta-Dataset of the World's Largest Fanfiction Repository. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. 6106–6110.

[113] Helen Young. 2016. Racial logics, franchising, and video game genres: The Lord of the Rings. *Games and Culture* 11, 4 (2016), 343–364.

A CORRELATION MATRIX OF SURVEY CODING DIMENSIONS

Canon Correlations	Yes	No	Maybe	Percentage Yes
General	56	38	24	47.46
Narrative	111	2	5	94.07
Social	27	60	31	22.88
One-shot	79	30	11	65.83
Repeatable	58	65	42	35.15
Theoretically repeatable	56	1	6	88.89
Authored by Bungie	184	64	52	61.33
Not authored by bungie	6	28	6	15
mixed	3	4	1	37.5
all	1	5	1	14.29
campaign	51	1	6	87.93
community event	10	0	0	100
dungeon	1	1	1	33.33
gambit	1	1	1	33.33
lore	8	0	0	100
mission	22	4	8	64.71
out-of-game	7	8	2	41.18
patrol	1	2	5	12.5
pvp	0	10	5	0
raid	47	47	28	38.52
seasonal activity	32	4	0	88.89
social hub	3	8	0	27.27
strike	4	5	5	28.57
weekly story	5	0	0	100

Received 2023-02-21; accepted 2023-07-07