

The Story We Cannot See: On How a Retelling Relates to Its Afterstory

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Abstract. The field of Emergent Narrative in digital narrative studies has seen a lot of research since its inception in 1999, and a lot of it is helpful, but also there has been confusion in terms and a lack of focus on the specifics of how the narrative is shaped in the mind of the player. The term itself has been used to both describe the ensuing field, the concept, the process, and the resulting narrative experience. This paper aims to clarify these misunderstandings by investigating the field and defining the term "afterstory" to help solidify the relationship between the differing aspects of Emergent Narrative. Afterstory is specifically defined as the virtual, mental story that exists in the player's mind after play and informed by the interactions and their perspective on them. Then, using previous work on retellings, the paper will relate afterstory to how people retell their afterstories, and what we can use those retellings for in relation to the system that helped form them. In conclusion, some examples will be brought forth that showcase the difficult nature of extrapolating a retelling's quality to its interactive narrative system's quality, but how it can still be done with careful, purposeful analysis.

Keywords: Emergent Narrative \cdot Afterstory \cdot Interactive Digital Narrative \cdot Emergent storytelling \cdot Storyworld \cdot Retelling

1 Introduction

This paper looks into the field of emergent narratives, specifically focusing on the idea of (interactive) stories as experiences originating from the creative interaction between a storytelling system and a human subject. Over the years, this field has seen some inconsistent and ambiguous definitions and this paper hopes to clarify some of the confusion by reviewing several perspectives and introducing the concept "afterstory", to help clarify the differences between the storytelling system in play, the narrativization process, the resulting product and the possible retellings that occur later. Furthermore, the paper will look at the concept of retellings, as proposed by Eladhari [7], to discuss how it can be used and how it relates to the afterstory concept, thus providing use-cases and potential avenues for research on how to use retellings to assess the quality of interactive storytelling systems, as well as the potential pitfalls when doing so.

2 The Ambiguity of the Emergent Narrative Field

The origin of Emergent Narrative in the field of interactive storytelling is often attributed to Aylett's paper [2] from 1999¹, and then further expanded in Aylett and Louchart et al.'s papers [16–19, 27], which demonstrates how narrative can "emerge" out of the events of an interactive experience. Their classic example is seeing narrative structures from a football match, like a late substitution scoring the winning goal etc. This ability for games and simulation-esque systems to create interactions and events that emerge into narratives, is a powerful idea that has since proliferated throughout both games, narrative studies, interactive storytelling etc. [2,10,11,24,28,30]. However, when we look closer at how people talk about emergent narratives, we get a few different results. Outside Aylett and Louchart's definitions [2,17], another often cited example is Koenitz' "System-Process-Product" model [11,12], where a IDN (Interactive Digital Narrative) system can be described as a sum of potential narratives. Using Montfort [21], Koenitz distinguishes between the system and its output (and crucially, the relation between those). The output, relevant here, is similar to the notion of an emergent narrative, even if Koenitz does not use the term "emergent", but rather describes the system as a possibility space of different narratives that, through the user's actions and the opportunities given by the system, are instantiated into a single instantiated narrative [12]. This product of an IDN system, a "recording" of a single playthrough can be understood as a more traditional narrative, after the fact.

Ryan et al., in 2015 [25], made this definition: "by emergent narrative', we mean the application area characterized by digital, fundamentally interactive systems whose narratives emerge bottom-up". He is here more talking about the area of research (a turn Aylett and Louchart later also did [18]). Quickly, we see emergent narrative both as a research field, as a concept, and an emergent narrative by itself. This final distinction was one James Ryan included in his latest (to our knowledge) definition of the term in his PhD thesis [24]:

"[Emergent narrative is] the methodology characterized by computational systems in which narrative emerges bottom-up from the interaction of processes in underlying simulations that typically feature autonomous characters (or, alternatively, the actual narrative material produced by this method)."

This definition is relevant for two reasons: Firstly, the mention of the term as meaning two different things in one, but also another: Ryan here has no inclusion, nor a need, for a user. Ryan does not require interaction, which is something Aylett and Louchart did. The user can be purely passive, while the system creates behaviour that we read narratives out of.

¹ We say often attributed because an older source is Galyean III, who coined the term in their PhD thesis on Narrative Guidance of Interactivity, from 1995 [8]. However, while their use and definition is interesting, they do not have a focus on emergence the same way Aylett had.

Walsh [30] takes a slightly different approach to his definition, and splits emergent narrative in two. The first one could be classified as the narrative sensemaking process, which is making narrative out of non-narrative behaviour (the simulation), while the second is seen as a product of interaction between the user and the digital agent (or bot) within the simulated environment, more akin to improvisation. His key point is that in the first definition, the simulation itself is not a narrative product, but rather purely a simulation out of which can be read a narrative. Here, Ryan agrees with him. Every game generates events, but that is not enough to make an emergent narrative: Someone or something has to curate those events into a story [24], and therein lies the emergent narrative: The events themselves are not a narrative. What Walsh does not get to is Ryan's ideas of the system performing the curation (his word, roughly meaning storification, but focused on the idea that events are curated into story-sense rather than made) necessary to create a narrative artifact out of the simulation behaviour. Ryan sees the system as capable of presenting stories to an experiencer without the need for the experiencer to do the work to put that story together themselves. He acknowledges that most emergent storytelling up to this point has relied on what he calls mental curation, but his point highlights the difference between event generation and curation. Walsh's second definition, as he points out himself, has similarities with Aylett and Louchart's focus on RPG game systems and their improvisational narrative structure, as his focus here is on the emergence of new narrative events instigated by a user interacting with the system (his example is a player playing the Sims and actively role-playing within the system, an example Jenkins also used in his use of the term from 2004 [10]).

Swartjes [28], too, has another definition: "Emergent narrative can be seen both as a theory of narrative in virtual environments, addressing the paradox between free-form interactivity from a first person perspective and narrative structure, and as a design approach" [28]. Here is another element added, namely that of Emergent narrative as a design approach. The authoring and design of Emergent narrative is another topic, that Aylett and Louchart, along with Suttie and Lim also began focusing on [27]. This paper will not focus on that aspect, though, so please refer to those sources if interested.

So, we are left with several concepts within the field of emergent narrative: As the design of a simulation, as design process or approach, both through the designers (authors) themselves and the approach that guides them. There's the simulation itself, and the events that it produces, there's the curation (or storification) of those events into a single story, which can be experienced, or has been experienced, in the mind of a person, depending how you view it. There's the parts that happen inside the system and those that happen in the mind of the person experiencing them and there's different kinds of experiencing based on whether the user can interact or not. Wrapping all of this under one term is not inherently a bad thing, but it has led to confusion, as shown by Walsh, Ryan [25,30] and others. Therefore we believe some clarification is in order, which we will do by ordering the events and proposing a new term in the place of story as outcome: The afterstory.

- 1. There's a world, a design, a system that can construct a large (but finite) amount of possible events and world states. This world (game/design) is designed by people who intentionally placed content and rules within the world to run with certain behaviours and with certain kinds of schemas, but ultimately, it is left to run by itself or in interaction with a user.
- 2. The world runs its simulation, with or without interaction as a self-contained emergent system wherein events occur, creating emergent behaviour².
- 3. Those events form what Ryan calls a chronicle: A series of events. This is *not* an emergent narrative, nor is it a story.
- 4. Those events are curated, sorted and accentuated into an experience akin to a story by the experiencer. This is a narrative experience. The system here has conveyed a narrative to the user, through its system. Vitally, this can happen during play or after play, and both are equally valid and, probably, happens in equal amounts. If it happens during, it has the possibility of feeding back into the events and thereby altering the chronicle real-time.
- 5. This experience ultimately leaves the player with what we will call an afterstory. It exists in the mind of the user and there alone. They can then choose to retell it to another person, at which point it will be relayed as a new (retold) narrative (more on this in Sect. 4).

This entire process is what we would call Emergent Narrative (see Fig. 1 for a visual representation). This is what the field of Emergent Narrative studies concerns itself with. It is thereby not the outcome as *that* is the narrative that did emerge, and it is, by definition, not emerging anymore; it is an afterstory.

3 Afterstory: A Definition

Afterstory is a term we first coined in a previous paper from 2016 about game mechanics and narrative [14], as a term to describe the specific, actual story that happened as a result of a play experience. It is specifically the (static) story itself, rather than the behaviour that creates it. It is, to use Koenitz' word, a "product" [12] of the systemic interaction and the player's perspective on it, but not to be compared with Koenitz' use of that word since it is not an instantiation in the sense that it is real; rather, an afterstory is purely in the mind of the player. Any game can produce an afterstory, and every game does when you play it. This is what you remember after you close the game down. It is what happened to you, with emphasis on the past tense. The afterstory can vary greatly from person to person in a more emergent game or be more similar in a linear game, but there will always be subtle nuances, since the player's interpretation, reading, and feeling of narrativity will be different, even in a completely scripted sequence (even in a movie). It is thus a product of both what happened in the simulation of the game (did you take path A or path B, etc.) but also, inherently, the player's reading and reasoning of those events. If they focused more on one part of the game than another, if they disliked a part, their afterstory will be coloured by

 $^{^{2}}$ This inherently assumes that the system is capable of creating emergent behaviour.

that read. A person will always keep their own idea of what happened, rather than what they actually did. As memories, the afterstory is paradoxically both virtual and actual. It exists both in the mind of the player and as something that has happened, but not as something that is measurable or real.

It is specifically called an after story and not a narrative because it is story-like in its nature. If we look at the traditional story/discourse split [1,26] (or more relevant to this discussion, Ryan's reinterpretation of that split), a narrative is the "textual actualization" of a story when it is told through a discourse [26]. Marie-Laure Ryan says that a story is "a mental image, a cognitive construct that concerns certain types of entities and relations between these entities", or, "story is narrative in a virtual form." [26, p. 7]. If we map that onto our previous distinctions, story is then the pre-actualized world, it is the designed world before it is run: The possible stories. Or what Ryan (James, this time, not Marie-Laure) (and others) calls the storyworld [24]. The discourse is then the simulation itself; both in how it simulates and how it conveys what is simulated. Those two together create a narrative (emergent) that the player experiences. But inside the mind of the player, after the experience, it once again becomes virtual. No longer actualized (despite the fact that it is actual), it is now a story and not a narrative, because it is not being told. In the instance that it is being told by the system, it is a narrative, but as we mentioned before, what the player is left with (in their mind) is a story. Thus, afterstory.

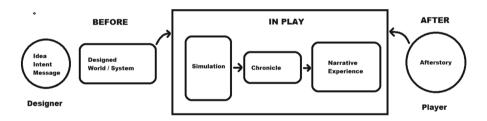


Fig. 1. A crude overview of the Emergent Narrative concept, as explained in the text. There exists three primary positions, one before play, one during and one after, and while they all affect each other, the distinction is useful. The circles represent people and the elements inside purely exist in the mind.

Now, the question is, what do we use this for? First, it helps us clarify the distinction between the simulation, the storification process and the outcome of the emergent narrative experience. By specifically separating the outcome from the experience, we can better understand them as two separate things, and see how one leads to the other, as well as how the system that created them is shaped. The second aspect of afterstory comes in what it is already used for in everyday scenarios: Retelling.

4 Retelling

Eladhari's paper from 2018 [7] discusses the possibility of retelling stories from the play of interactive storytelling experiences, and how that can be viewed as a potential avenue for critique and analysis of the system they came from. This is a relevant thesis that has some great potential, but to understand how, we can put it in relation to afterstory. Eladhari doesn't use the word afterstory, but her use of retelling touches on it: "The narrative layer of re-tellings consists of tales told about events and actions in an INS or a game world.". The "events and actions" that happened in the game, as viewed by the player, is the afterstory. What the retelling then is, is a new narrative that is formed with the afterstory as its story content: With a new discourse created by the reteller. To put it in traditional words, the relationship between afterstory and retelling is the same as the one between story and narrative. As any narrative, this retelling is coloured the moment it is told; there is an inherent degree of interpretation, projection, superimposition or formulation within it. Eladhari's example of a retelling of The Sims is a great example: Here, one of the characters has just earned a little bit of money and the first thing they want to do after is to give it to charity. This could've been viewed as the machinations of the system working, but the reteller shows that they are reading more into it: This act has meaning because of what happened before, and because of how the player views the characters. When these events are then retold, they are given meaning again by the discourse of the reteller: They are given dramatic weight, and they are even retold in a different order than they would have experienced them in game (as they would have known that it was money for a charity before performing the action, a fact we are only told as the letter is sent). These retellings are not exact copies of the afterstories they are coming from, as it is impossible to tell a story without, well, telling it, and thereby shading it through a discourse. This retelling, when it has been told, is then interpreted again by the new readers, who never experienced the events that led to the afterstory but only get the retelling, and then add their own layer of interpretation to it. Eladhari touches upon this as well when she quotes some of the comments that have different viewpoints of the retelling. A reader of this retelling could then take what they got from reading it and retell that again to someone else, and thereby have a new narrative created from a different type of afterstory, and like a great game of telephone, this chain could potentially go on forever, losing all resemblance and relevance to the story system and player who helped spawn it in the first place. This cycle, it should be mentioned, is no different than a regular retelling cycle of any kind of narrative, as is by no means a negative to the concept of retelling, but it is something to bear in mind.

Another type of retelling that functions a little differently is the automated retellings created runtime, such as log files or character-generated diaries. Eladhari mentions how this corresponds to Koenitz' notion of "product" from his framework [12]. And this is indeed an immediate retelling rather than an afterstory as it has a built-in discourse through its medium (and is not inside the player). A log file uses the structure and discourse of a log file. What it tells

about, is in theory the same bones that make up the afterstory, but it is different from the afterstory of the player as this has none of the player's interpretation and is only a "series of actions and events"; or the chronicle. Other types of retellings Eladhari mentions are community generated ones (such as the ones in Second Life [15] or Eve [5,9], simultaneous ones such as livestreams and esports (as the one mentioned by Eladhari [23]), or stories written from the perspective of a character (see Murnane [22]). Others still could be pass-along stories like "Boatmurdered" [29] or comedic serials like "Breaking Madden" [3].

Eladhari's primary thesis with the paper is that we can use these retellings as an instrument for critique of the storytelling system that created them. The idea being that if we consider leaving a meaningful impact on the player a strong criteria for judging the story, this retelling is proof that a "qame or an INS - at its base level - has provided an experience that is significant or meaningful enough that it is worth telling someone else about." And this is a powerful thing. Ryan mentions something similar: "The greater our urge to tell stories about games, the stronger the suggestion that we experienced the game narratively." [26, p. 193] This suggestion is obvious and straightforward at first: If we told a story from an experience it was powerful enough to retell, and that must mean there was something worth talking about, some narrative quality the player experienced as strong enough to want to talk about. However, if we delve a little deeper into it, this correlation is more nuanced. And here is where the afterstory/retelling split can help us. Because while the correlation at large might stick, there are several caveats to remember before we say that retellings show an inherently great system. It is possible to get bad stories (boring/meaningless stories) from good games. It also is possible to tell a great story of a mostly boring system. However, if it gave one great story, is it then not a great storytelling system for, if nothing else, one instance? Or was it just our interpretation as readers that formed a great story from something the system never intended as a story in the first place, in which case would be difficult to argue that it is a great storytelling system? Or maybe a system is great at giving experiences, but not the kind of experiences that are fun to retell? There's a lot to unpack there, so let's look at the fundamentals first.

If we assume that the fundamental goal of a storytelling system is to create a (great) narrative experience, any system that accomplishes this, must be a good storytelling system, even if it did so by accident (whether that was what the author intended will be looked at in Sect. 4.2). Thus, if it failed, it is not. Yet, what we're talking about here, is the afterstory, not the retelling. A retelling can be something else than the afterstory, and therefore it can become a great narrative, even if the story content it is made of is not. So while the hypothesized examples above all hold true, it is because we are always looking at the retelling of the afterstory, and not the afterstory itself. Since an afterstory, the moment it is told, becomes a retelling, we have to analyse the retelling. This retelling, and specifically, the discourse of it, can be good or bad, but has, potentially,

little to do with the quality of the storytelling system³. The afterstory that created this could be interesting or not, and the discourse could as well, and while they are often correlated, it is dangerous to assume that a well-told story is inherently a good one—or one stemming from a good system. For example, we can hypothesize an example of a retelling where the purpose is to highlight how the system did not provide a meaningful narrative. In this, you could purposefully tell your story so it shows how the afterstory you had was lacklustre, and still manage to tell a great story of how that happened.

This is not to knock the entire idea of analysing retellings, but mostly to warn about the fact that the retelling is not the afterstory: It is a *new* narrative, and one that is different from the storytelling system that helped create it. However, we would still agree that the correlation is still valid enough to be useful, even by itself. However, we have to consider how we assess systems through retellings.

4.1 Assessing Storytelling Systems

If we want to assess the quality of the system, assuming that the greater the stories and the more the stories it tells, the better the storytelling system, is the most obvious approach. However, that loses a lot of nuance, and we all know how difficult it is to accurately measure the quality of a story. Eladhari offers two approaches. The first, being the, in her words, blunt option, namely to simply find the total amount of retellings and judge that the more, the better—but offer no reaction on the quality of those retellings. The other would be a deeper analysis of some retellings, that could help provide pointers to what aspects of the storytelling system in question is interesting, and why.

To start with the first and simpler of the options, its great advantage is that it is an easy measurement (assuming one can get the data, which admittedly can be tricky) and an easy comparison point across systems. However, what it loses is quality and variability. One can imagine a system that is able to create one really amazing story, that then gets retold a lot because it is worth retelling, but then fails to create any other kind of narrative. That system would succeed well in a query that only looks at occurrence. Therefore, we propose a two axis system for charting retellings of storytelling systems, where the first axis is occurrence and the second is variability. This axis is used to determine the range of afterstories that spring from a system, and can be used to analyse the robustness and range of a system: The more varying stories it can tell, the more robust that system must be at handling a wide variety of stories. A low variability is not necessarily a knock against a system, but it is a good measure of the type of storytelling system it is, and give a potential suggestion for the range of potential afterstories it can create. How to chart this variability is up to the individual research, as it can probably be done in many ways: By genre, by theme, by moment-to-moment content, to event-variance (how many events vary

³ An argument can be made that a more involved (or elaborate, or deep) discourse shows an effort to want to tell a story well because it is an interesting story, but one can still tell a bad story well.

in between retellings), by word count, or even by medium of retelling (although this will provide different results), and probably others. This choice will greatly determine the kind of answers you will get and is therefore dependent on what you want to research.

The second approach Eladhari offers is a qualitative approach, looking at doing in-depth studies of retellings to understand the storytelling system behind this. Eladhari doesn't provide much analysis into what this means. And at first, this is a process similar to doing any literary analysis of a traditional narrative work (as Koenitz also mentions [12]), but we want to spend a second discussing how to look at retellings specifically to learn something about the storytelling system behind it. Because it is a different exercise to analyse a retelling for why it is a good story than to analyse why the storytelling system that helped create its foundational story is a good system. A good starting point would probably be to focus on where the system aided in interpretation and where it didn't. It is impossible to split the interpretation from the events that were interpreted, so instead it should be more fruitful to see where the system created events that were more easy to interpret into something meaningful (that was then told). To take the Sims example from her paper [7], that the system recognized that the character had money and thus wanted to spend that money on something that fit their character (as a good person)—donating to charity—was an action that was easy to interpret into meaning. It was a smart narrative move because it was a wish immediately caused by recent events and fuelled by the characterization that fit the already established fiction. This is naturally only a single event, and thus an analysis ought to go deeper and look for more, and potentially how it succeeds over different retellings, where the base content (the events and actions) and player interacting with it is different.

These two examples show different ways to use retellings, and there's almost certainly more possible venues, but each approach would have to harken back to the question of how do we use this inherently warped (not in a bad way) telling of a story to see how that (retold) story was created.

4.2 The Intent of the Teller

Finally, there's a point of intention. We phrased previously that even an accidental storytelling system was a successful one, and while we stand by that, there is another point of analysis which is about what the author intended with the system and whether that was successful. The concepts of narrative intelligibility and closure helps define that relationship, as defined by Bruni and Baceviciute [4]. Shortly: Closure is when a story feels closed and satisfying by itself, regardless what the author wanted to convey, and an intelligible story is when the reader understand the intent and design of the author. A storytelling system where the only intent is narrative closure, any accidental storytelling that happens is fine, as long as closure is achieved in the afterstory. If the intent is intelligibility, on the other hand, there is a degree to which the storytelling system must create the kinds of stories intended by the creator, or at least create stories that can

be read as intelligibly the ideas formulated by the author—otherwise it fails as a system intending on narrative intelligibility.

Therefore, when looking at the retellings of narratives from storytelling systems, it is relevant to consider whether this retelling was an intended outcome, to determine the possible intent behind the system, and how it employed that intent (or accidental intent) in its design. And furthermore, like there is a level of discourse in the retelling that is not in the afterstory, there is also an intent with the retelling that might be different than the narrative given from the storytelling system. It is by looking at this intent we can identify whether the retelling wants to tell a story as it happened because it was a series of narratively interesting events that they just had to tell, or for some other purpose. And if this purpose defeats the use of this retelling as a viable analysis of the storytelling system, it shouldn't be looked at with that in mind (but can potentially still be used for other avenues of research). To bring back the previous example, if a retelling was told to showcase how awful a story this system produced, it (probably) isn't a retelling we can use to say it was a good storytelling system.

All this said, we believe it is clear how one should be mindful when looking at retellings as an avenue for critique of a system that helped create that retelling, but that does not mean that it shouldn't be done or that it isn't a valuable exercise. All of Eladhari's points about it still stand, these past points were just to provide caution and method before we draw conclusions from material that doesn't justify it. Retellings, like any avenue of research, has caveats and biases to keep in mind.

5 Examples of Retellings

An example of a retelling that is interesting in this context is Jon Bois' "Breaking Madden" [3] from 2015, where his intent from the outset is to "break" Madden (the american football game, not the person), by altering the in-game values and creating scenarios that couldn't possibly exist in a real game of football. For example, in an early story, he creates a character with a completely disproportionate physique to a real human being; gives him inhumanly strong abilities in some departments (like running, throwing, stamina) and inhumanly terrible abilities in others (vision, agility, elusiveness), and thus creating a caricature of a person rather than approximating a real human playing football. Here we see already a discrepancy in the intent of the storytelling system (Madden 25 [6]) and the retelling. Madden the game is interested in creating stories, as most sports games, but it is most likely stories of a different kind than the ones Jon Bois' wants to tell, and using different rules—even though Jon Bois technically always stays within the rules of the game (at least from what we can tell). We say this because, while we could argue that the intent of Madden is up for debate since these "breaks" are possible, it is likely that the intent behind the creation of the game was not to create unfair, impossible scenarios that almost do not resemble real american football. Jon Bois uses Madden to create comedic sports stories that feel familiar in topic and scope but are always sligthly off-kilter by purposefully twisting the system to his design. And so, the idea of analyzing "Breaking Madden" is subverted by "Breaking Madden" itself. Jon Bois' intent with the play is retelling—not playing. He plays with the idea of creating an article about his play. So, already from the get-go, he subverts the system by making it do something he needs to write a feature, rather than play and tell only the interesting stories. He, in a way, forces the game to give him a retellable story, which could be argued is a knock against the idea that the retelling itself is enough to show a powerful storytelling system. Taken further, you could argue that any "Let's Play"-style content, where a person shows themselves playing a game with the intent of showing that playthrough to other people, is an inherent bias against the value of that retelling: As it is not necessarily interesting because the system is interesting. However, referring back to Walsh's second notion of Emergent Narrative [30], this can also just as well be read as an improvisational act with the player (Jon Bois) and the system as participators, through which we can still construe whether the system is capable of allowing this improvisation in meaningful ways.

Another example the first author has previously used (in his Master's Thesis [13]) was the game Loneliness [20]. It is a simple, affective game, about the experience of loneliness. You control a little square moving upwards, and every time you try to approach the other squares in the space, who are either standing around or playing or jumping or walking—they move away from you. You can never be close to anyone, until you finally move up to the very end, where there are no one else and you are all alone. This provides an interesting counterpoint as well because we cannot imagine most retellings or afterstories of this game to be terribly interesting or variant: There is no choice in the game, there is no point of difference between experiences (other than choosing to stop before the end), and the story itself retold (as we just did) is rather bland. Loneliness isn't designed to be an emergent storytelling system with a lot of options, so the analysis doesn't quite hold when taken to an extreme, but the point is still relevant: A retelling does not necessarily capture (even though, the existence of it might allude to) the emotional affect of the narrative experience as it happens. Emergent stories, unlike Loneliness, are probably inherently more fun to retell (Ryan touches on this [24]), but maybe it is possible to create an abstract emergent system that is difficult to retell, but still leaves the player with a meaningful experience and a powerful afterstory—but less retellings because it is simply a more challenging experience to convey. However that again illustrates Eladhari's point; that a person chose to tell about their experience with Loneliness is a valid, valuable point of data by itself.

Finally, we want to highlight is the work of Murnane [22], and his in-depth analysis of 400 player stories from Skyrim, from 2018. This is an excellent example of a thorough examination of retellings from a system and the types of stories it made. Here, he makes some key points about the nature of retellings as well, first by showing their blurred relationship with fanfiction, and more importantly to this topic, the existence of glitches as a part of the emergent narrative experience. His point on the matter can be summed up with this quote: "Even when

we know the system has failed, players want the story to make sense." [22] His examples include players weaving the breaking of the system into the story in their heads and making it a part of the world, supposing logic to it when they know there is none—a rather pure form of narrative sensemaking. It serves as a nice commentary to our points about "Breaking Madden", and highlights how the intent of a system can become secondary to the stories we tell with them. His conclusions on the nature of emergent narrative from this research is also interesting: "...when I am talking about emergent narrative, I am describing a story told by a player about interacting with a game in which events occurred which are significant to the player but ignored by the system." [22]. Especially the last point, "ignored by the system", is fascinating, as this specifically focuses on events that were not intended by the system, in the sense that it did not react or use it in a meaningful way. Here, looking at Murnane's retellings is enlightening, as many of them enrichen the narrative of the systemic events, by authoring more aspects, more details, showing the inner minds of characters, reflecting on off-screen events, pondering motivations etc. This "more" is generally ignored by the system, as the purpose of the retelling is often to fill in those exact missing parts (in the afterstory), and thereby enrichen the story into something enjoyable outside the afterstory itself.

6 Conclusion

This paper started as a discussion of the ambiguity of emergent narrative, and introduced the term afterstory, the actual, mental story a player is left with after the experience, to help solidify the differences between the storytelling system as it simulates events, the narrativization process, and what the player is left with in their mind. Furthermore, the afterstory was then discussed in relation to retellings, when a player later retells their experience to other people, thus creating a new narrative of the story-material that shapes the afterstory—which originally came from their interaction with a storytelling system. This distinction was used to discuss how to use retellings as assessment of the quality of the storytelling system, by investigating the variability of those retellings, the ways the system influenced the retelling, and what the intent of both the system and the retelling was. Finally, a few examples were presented of different kinds of retellings, showcasing how varied and awkward these can be to analyse as directly as one would want.

We hope this paper shows the value of a concept like afterstory, to help bridge the gap between the narrative experience as it happens and the retellings afterwards. Defining clearly what is in the mind of the player and what is not helps us—as designers and scholars—focus on the only variable we can control before, the system, and the only artifact we can analyse after, the retelling, and not begin to confuse the two.

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