

Narrative Tools for Games: Focalization, Granularity, and the Mode of Narration in Games

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Abstract

This article looks at three narratological concepts—focalization, granularity, and the mode of narration—and explores how these concepts apply to games. It is shown how these concepts can be used as tools for creating meaning-effects, which are understood here as cognitive responses from the player. Focalization is shown to have a hybrid form in games. This article also explores the different types of narrators and granularities in games, and how these three concepts can be used to create meaning-effects. This is done by discussing examples from several games, for example, *Assassin's Creed III*, *Skyrim*, *Fallout: New Vegas*, and *Civilization*.

Keywords

focalization, granularity, narrative, meaning-effect, mode of narration, perspective

Introduction

Video games have advanced with great strides since their inception. Things like graphical fidelity and the level of simulation achievable in modern games are both awe

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inspiring and evolving fast enough to make yesterday's games appear dated. Yet, the area where games with multimillion dollar budgets still seem to struggle the most appears to be the story. Telling good stories is not easy. Telling them in games seems to be even harder. Hopefully, a better understanding of games and the stories in them will make that task easier. This article provides tools of narratological theory for that task and shows how these tools can be applied to games.

The term "video game" is here used as a general descriptor for games played on typically digital platforms like game consoles or personal computers. There are significant differences between platforms that are not considered here, but which may affect the way games are experienced. This is especially true with the rise of new types of play (e.g., casual and asynchronous) and new platforms (e.g., the smart phone). Discussing these differences would be outside the scope of this article. For the same reason, this article will not discuss nondigital games, even if the differences would arguably be even greater than between different digital platforms. Although this article focuses on video games, it is not argued that these meaning-effects are limited to digital games. On the contrary, similar meaning-effects could be achieved in analog games.

Aarseth (2003) underlines the importance of the game scholar's personal experience of playing games. I have played most of the games discussed here but not all of them. As Aarseth (2003) suggests, more emphasis is given to the examples I am more familiar with.

Game Narratology

To understand games using narratological concepts, one has to take special care in applying them. The narratological concepts used here were not created with games in mind, and instead of games, narratological research has mostly been conducted on other media. However, using narratological theory to understand games has a long, if contested, tradition in the short history of game studies (e.g., Frasca, 2003; Simons, 2006).

The analysis in this article borrows heavily from the literary strand of narratological theory. This foregrounds games as forms of storytelling, as opposed to discussing them as drama (Ryan, 2002). Other approaches building on, for example, cinema, theater, or role-play could also be used but would require a different analytical framework. This article uses the concepts of focalization, granularity, mode of narration, and meaning-effects, all borrowed from literary studies.

Some researchers have expressed a worry of game studies being "colonized" by other fields with their own interests, issues, and framings, and thereby translating games into terms that are ill equipped to handle them (e.g., Aarseth, 1997, 2001). However, it has been pointed out that although classical narratological concepts are not perhaps applicable to games as such, this does not delimit narratology to the world outside games. The application just needs to be aware of the differences

between games and other media and perhaps the limitations those differences cause (Aarseth, 2012; Calleja, 2013; Pearce, 2005; Ryan, 2002, 2013; Tavinor, 2009).

One example is the difference between scripted narratives and emergent or interactive narratives, as described by Tavinor (2009). Ryan (2002, p. 594) follows a similar line of thought when she emphasizes how some media are better suited for some narratives than others: “there are plot types and character types that are best for the novel, others are best for oral storytelling, and yet others are best for the stage or the cinema. The question, then, is to decide which types of stories are suitable for digital media.” When discussing game narratives, it is also important to acknowledge the limits that player freedom sets to narration. It may be that narrative is in a more or less permanent contradiction with play (Sicart, 2011) or interactivity (Ryan, 2002).

One distinction that may help understand this analysis is the difference between content and expression (Montfort, 2007). While this is not the only way to make this distinction (cf. Genette, 1980), it is useful enough for the purposes of this article. Following this distinction, this article is more interested in expression than content: *how* things are expressed, rather than *what* is being expressed. The focus is on methods that could be used to express all kinds of things, and the examples highlight specific illustrations of this.

There are many strands of narrativity in narratology, with some approaches likening all human meaning making to a form of narration (e.g., Flanagan, 1992). Even highly abstract games can be analyzed with narratological tools, like analyzing *Space Invaders* (Taito Corporation, 1978) as a narrative about aliens (in either sense of the word) or *Tetris* (Pajitnov, 1984) as a portrayal of the “overtasked lives of Americans in the 1990s” (Murray, 1997, p. 144). However, the value of such analyses is far from self-evident. The tools presented subsequently could be used to analyze either one of the previous examples but that would probably only be useful as a scholarly exercise.

This article evokes Ryan (2002, p. 583) in noting that narrative “is a mental representation that can be evoked by many media” and that “narrativity is a matter of degree.” The analysis here tries to focus on games with a clearer narrative content, even if the clarity is often just a matter of degree. Games combining narrative content with gameplay are here called ludonarrative games (cf. Aarseth, 2012).

The current analysis tries to steer away from other senses of narrativity, like the retroactive attribution of a story to a sequence of events or the reporting of game events to other people (cf. Herman, 1997). However, a thorough examination of what narrativity and narratives in games are is outside the scope of this article. Although the focus is on the semiotics of the tools discussed, any concept of narrativity that is compatible with the following conception of narrativity should be compatible with the tools presented in this article:

1. Narratives can exist in any medium but vary in realization.
2. Narrativity exists in degrees.

3. Games can be combined with stories in different ways. Different combinations lead to different meanings.
4. Not all that happens in a game is narrative, but most events have a narrative aspect to them.

This is obviously not meant to be a complete explanation of game narrativity but provides a framework within which meaning-effects can be understood. For a more comprehensive account of games and narratives, see, for example, Aarseth (2012), Calleja (2013), Frasca (2003), and Ryan (2002).

Meaning-Effects

This article shows how focalization, mode of narration, and granularity can be used to create meaning-effects in video games. Varying the use of these tools produces different meanings in literature and should therefore do so also in video games. However, it is not claimed that these meaning-effects are stable or that they can be said to produce consistently the same meaning-effects regardless of context (Bundgaard, 2013). Rather, these meaning-effects are highly context dependent.

A meaning-effect is defined by Bundgaard (2010, p. 5) as “a cognitive response to a textual stimulus.” Meaning-effects “cover the whole spectrum going from purely emotional responses to highly elaborate interpretations” (Bundgaard, 2010, p. 5). Here, a meaning-effect is not limited to a textual stimulus, but understood analogously as something that is caused by a stimulus from a video game. This stimulus may be, for example, textual or something like spoken language or haptic feedback from a controller.

Understanding meaning as a cognitive response grounds meaning firmly in the cognitive processes of the player. Players are here understood as a more or less uniform group, with relatively similar cognitive processes. However, limiting the meaning in games to cognitive processes of a single isolated person does not do the concept justice (Mäyrä, 2007). Instead, these cognitive processes should be seen as happening in a complex context of (social) relations, ultimately making meaning a contextual and social concept. The approach taken here leaves out all consideration for cultural differences, but assumes that such differences would exist.

Studying how games can be used to create the meaning wanted by a designer, how they create meaning despite the intentions of the designer, and how players create meaning from the games they play is a large and complex set of questions, which is why the focus is here limited to the more limited sense of meaning-effect. Meaning-effects are one way meaning is created in relation to games but not the only way.

Tools for Meaning Making

Video games differ from literature in several aspects, for example, by being multi-modal. The approach taken in this article does not deal with the ontology of

games—trying to map out all the possible values of the variables discussed here—but rather the focus is on the semiotics of these tools. The concepts discussed are focalization, mode of narration, and granularity. These three concepts are discussed together because they all pertain to the perspective and the way of telling the player/reader what it is that they are seeing and how. They all concern the perspective of telling: the way the narrative is told, and the point of view the narrative is told from. Understanding how to vary the perspective enables designers to make the stories they tell more effective in conveying the meanings they want to convey. This does not mean that they are the only significant narratological tools useful for understanding games. Development of other narratological tools is left for future research.

In addition to showing how these concepts apply to video games, they are extended to cover cases that are not found in literature but are present in games. The central differences requiring this extension are player agency, interactivity, and multimodality (Arjoranta, 2011). These concepts are discussed in order to give game scholars a more comprehensive vocabulary for studying how games create and contain stories. Hopefully, these three concepts shed some light on how specific types of meaning-effects are created in games. Designers can use these tools to convey the things they want to convey in a consistent and effective manner.

Of course, the designer is not the sole authority on the meaning of a game. Both the player's interpretation and the context of play do shape the meaning. The final result is necessarily a combination of authorial intent and player agency (Bizzocchi & Tanenbaum, 2012). What designers can do is to aim for the best possible representation of their intent.¹

Focalization

Focalization is the point of view things are seen from (Bundgaard, 2010; cf. Ciccoricco, 2012; see also Evans & Green, 2006, p.196). This can be the point of view of a character present in the story, those of several characters, or even outside any sentient being, a point in space. Any of these can include evaluations, judgments, or feelings. In the case of a point-in-space perspective, the evaluations can be those of a narrator.

Genette (1988) calls this perspective. He classifies perspective into three categories: zero focalization, external focalization, and internal focalization (Elverdam & Aarseth, 2007; cf. Ryan, 2002). With zero focalization, Genette means that the story is not focalized into a character but is told from outside any of them. The difference between external and internal focalization is whether there is access to the characters' thoughts and emotions. External focalization gives a behavioristic view on the characters, while internal focalization grants access to their mental landscapes. These can be mixed in a single narrative, and all three can be present. This full scale of perspectives can be found in video games.

Nitsche (2005) uses a similar approach, basing his analysis on Mieke Bal's (1997) application of Genette's terminology to visual perspectives. Nitsche makes an

important distinction between focalization and narrating voice. No strong narrating voice may be present in a game, but the perspective can still be clear and distinct. A full review of all possible perspectives in games would be beyond the scope of this article. Some selected examples are discussed instead.

Games that are focused on the strategic level tend to have zero focalization. An example would be the real-time strategy game *Command & Conquer* (Westwood Studios, 1995), where the game is portrayed from a free-floating isometric view. It can freely shift around the map, paying attention to areas chosen by the player. Because of technical limitations, the point of view was limited to movement in two dimensions, with the third dimension and the ability to zoom only added to later games in the same genre.

The literal point of view of the camera angle should not be confused with the narrative perspective, even though they often coincide. An abstract game may have very little narrative content, in which case varying the perspective does not make the game suddenly narrative, but in cases where the game has narrative content, choices of perspective have narrative consequences.

A game may have a strategic level of abstraction and still utilize forms of focalization other than zero focalization. *Dawn of War II* (Relic Entertainment, 2009) is a strategy game that continues the same genre as *Command & Conquer* but focalizes the single player game through a central protagonist. However, when playing other modes (e.g., multiplayer), there is zero focalization.

Real-time strategy games use a ludic mechanics related to the point of view. It is commonplace for the view of the player to be limited to a small area. This limitation is described with a term borrowed from military theory, “fog of war.” The fog of war works in two similar manners. First, only the area that the player’s units are able to see is revealed to them. To learn about the surrounding terrain, it is necessary to explore the game map. Second, when no units can see a certain area, changes in that area are not shown to the player and that area is shown as partially hidden. Enemy movement, new buildings, and other changes become evident only when the player sends units to scout the area (see Figure 1).

This means that while the literal point of view might be a bird’s-eye view of the map, the perspective at least partially blends with that of the commanded troops. Only information available to them is available to the commander. This might be explained in diegetic terms with communications technology or magic or seen as an extradiegetic game mechanics.²

External focalization is typical to video games: the story is told from the perspective of a central protagonist, but from a behaviorist point of view, without access to the character’s consciousness. A player may control the actions of the protagonist without having access to their mental landscape.

This is where games differ from literature. The player’s perspective may be inside the body of a character (i.e., first-person perspective), up to and including having control of all of their actions, without having any access to their mental perspective.



Figure 1. Fog of war in *Freeciv* (The Freeciv project, 1996). The two different shades of fog of war show two different types visibility.

An early example of this is the text adventure game *Zork* (Personal Software, 1977). The game is seen from the perspective of “you,” but this you lacks any distinct qualities (see Figure 2). This featureless you is used also in other text adventure games (Karhulahti, 2012).

A later example of external focalization would be *Half-Life* (Valve Corporation, 1998). In *Half-Life*, the player controls the actions of Dr. Gordon Freeman. Because Freeman stays completely silent during the game, his implied agency is based solely on his actions. But the actions are almost completely controlled by the player, even during the scripted sequences where the player’s own agency is limited.

This first-person external focalization is usually done for a specific meaning-making effect: the player is supposed to identify with the tabula rasa-like character (the anonymous you) through viewing the actions of that character as their own. Whether this is successful depends heavily on other factors like the coherence of the character’s actions when the player is not controlling them, the actions of other characters within the story line, and their reactions to the player’s character. It is not

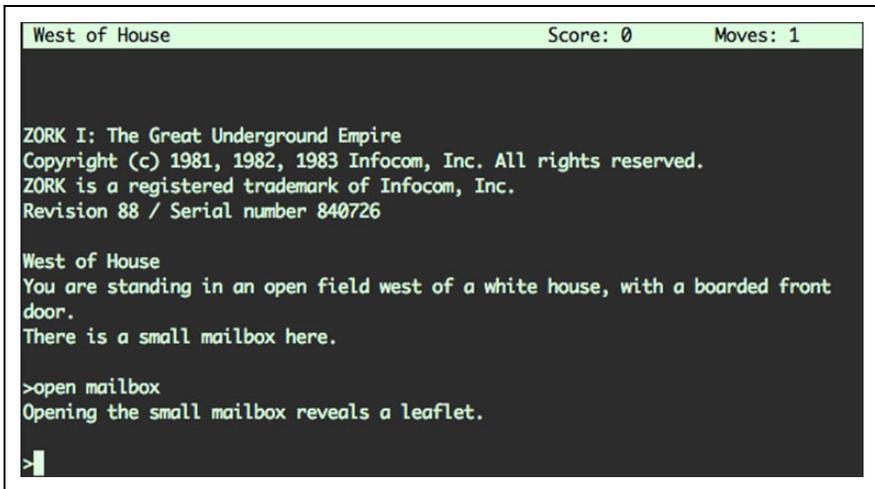


Figure 2. The opening of *Zork* (Personal Software, 1977).

enough to consider the player's character in a vacuum, even if they are portrayed as a blank slate but as a reactive part of the game world.

It can be argued that video games can make use of the character-internal perspective to achieve a perspective not available in literature. This perspective is embodied in the physical perspective of the character being played but does not allow access to their mental landscape in the manner of internal focalization. In other words, the player has control over a character's actions while not having access to the character's mental landscape. This can be used, for example, to deceive the player (cf. unreliable narration subsequently).

An example of this is *Assassin's Creed III* (Ubisoft Montreal, 2012). The *Assassin's Creed* series uses a metanarrative in which the player controls a protagonist called Desmond in the games' near-future present and Desmond's different ancestors in their historical environments. A machine called Animus lets Desmond relive the lives of his ancestors. Desmond is part of an organization known as the Assassins, who fight against their eternal enemies, the Templars. Different games have different ancestors fighting for the Assassins' cause.³

Assassin's Creed III uses the player's expectations against them, by starting the game off with a Templar protagonist, Haytham Kenway. In a clever narrative trick, the player is made to play through missions that are essentially identical to the ones carried out as an Assassin in previous games. The two factions are shown to be functionally identical in their methods and pursuits. In the narrative, Haytham's allegiance is neatly sidestepped: "Who should I say you are?" a character asks him. "You don't. They'll know," Haytham answers. He is aware that he is working for the Templars, but the player is not. Haytham does not need to state aloud something

that is obvious to him. It is only after few hours of play that the game reveals Haytham's allegiance: he initiates another character into the Templar order and at the end of the ceremony states, "You are a Templar."

Interestingly, the game's user interface is complicit in this deceit. When Haytham is escorted by Templar allies in disguise, they are marked with a symbol over their head to make sure the player knows which ones are allies and which ones are enemies. However, the symbol over their head is not the symbol of the Templars but that of the Assassins. This might be narratively explained in the game with the fact that at least part of the game's interface is part of the Animus, visible both to the player and Desmond. The assassin symbol might be there for Desmond's sake.

Assassin's Creed III is an example of the perspective described above, since it lets the player pursue all kinds of goals as Haytham but has them unknowingly help the Templars. If the player had access to Haytham's knowledge, they would learn about his allegiance, since it is his central driving force and defining characteristic. Instead, every strike the player strikes for the Assassins' cause while playing Haytham is actually a strike against them.

Some games use external focalization but place a filter of character emotion or experience on what the player sees or hears (Nitsche, 2005). The perspective is external to the character played, but the character's emotions and experiences still color the player experience.⁴ This is used for great effect in *Max Payne* (Remedy Entertainment, 2001) and *Dead Space 3* (Visceral Games, 2013).

In *Max Payne*, the player plays through Payne's dream sequences. The first one is a labyrinth of identical hallways that seem to lead nowhere. The screen is murky and ominous, with the lighting reflecting Payne's experience of the situation. Eventually, the screen is tinted red as Payne approaches the bloody finale of the sequence. The camera stays external but is very much affected by Payne's experiences.

Dead Space 3 has a cooperative play mode, where two players control the characters Isaac Clarke and John Carver. Both are controlled from the external perspective, but the players are still occasionally shown different things when the characters' experiences of the game world differ. This is significantly impacted by Carver's mental instability, forcing the player controlling him to play through episodes of dementia.

Internal focalization can be achieved in games with measures similar to those in literature. Presenting internal dialogue or describing a character's experiences can be done in different modalities in games. A direct analog to literature would be a written description of the character's emotions embedded within the game, but the same effect can also be achieved with spoken internal dialogue.

Video games may also describe a character's internal state by suddenly removing player control and having the character act regardless of the player's wishes, perhaps in a harmful or destructive manner, a technique not available in literature. This sudden removal of control limits the player's agency (Tanenbaum & Tanenbaum, 2009) and can be used to highlight the player's helplessness in the situation. Sicart's (2009)



Figure 3. The mighty Dragonborn, dead from falling down a cliff in *The Elder Scrolls V: Skyrim* (Bethesda Game Studios, 2011).

analysis of *Bioshock* (2K Boston, 2007) shows how this can be used to create ethical meaning-effects.

Some games move the focalization from inside the character's viewpoint to outside it when the character dies or goes unconscious. This disassociates the perspective from the character and signals that the player has lost control of the character's actions. An example of this is *The Elder Scrolls V: Skyrim* (Bethesda Game Studios, 2011). It is possible to play *Skyrim* from a third-person perspective, with the player character visible on the screen, but the camera defaults to a first-person perspective. However, when the player character dies, the camera moves away from behind the character's eyes and shows the character's dead body (see Figure 3).

Another example of this change in perspective is usually known as the "kill cam." It is used in multiplayer modes of first-person shooters, like, for example, in *Call of Duty: World at War* (Treyarch, 2008). A kill cam uses the same disassociated perspective discussed above, showing you the death of your character from an outside perspective. But it places the perspective so that it follows your killer, showing you the moments before your character's death and the actions that lead to it. This can be even more disassociating than simply witnessing the death of your character from outside, because in this case, the perspective is placed in the eyes of your character's killer. In this example, the mode of focalization stays the same, but the focalizer changes.

There seems to be a possible meaning-effect related to this. The technique shows how the controlled character is essentially interchangeable with other characters in the game. The actions of your killer are similar or identical to the ones you were

undertaking trying to kill them. They happened to be faster, more accurate, or better positioned than you and managed to kill you before you killed them, but it could have been the other way round. You might even infer some hints as to what would have changed the situation from seeing the world from your killer's eyes for a few seconds. While the feeling of embodiment may be strong when controlling a character in a first-person shooter, the last minute change of perspective reminds you that the character is one of many, discarded as soon as it becomes unusable.

Both *Mass Effect 2* (BioWare, 2010) and *Tomb Raider* (Crystal Dynamics, 2013) use an opposite technique in their introduction. Both games are played from an external perspective, with the player character portrayed on the screen. But both games show parts of the introductory cinematic from an internal perspective, with the camera situated where the character's eyes would be. Again, it is an exception to the way most of the game is portrayed, and perhaps an attempt to make the player identify with the perspective of the character (soon to be) played.

These two contrary examples show how changing the focalization can be used to create meaning-effects: to create a distancing effect, move the perspective from an inside perspective to outside the character's body or to another body. Coupled with a loss of control, this can be used to convey helplessness. To create the opposite effect of identifying with a character, move the perspective inside the character's body.

It seems that games have all the same perspectives as literature (zero, external, and internal focalization) at their disposal and an additional one. This embodied focalization places the player in control of the actions of a character (or several characters) and places the physical perspective inside the body of the character but does not grant access to that character's mental landscape. This is usually because that character is created as a blank slate for the player to identify with and to fill out as the game progresses.

Mode of Narration

Stanzel (1981) makes a central distinction in modes of narration by dividing narrating characters to teller characters and reflector characters. These can be equated with Genette's (1988) narrator and focalizer, respectively. The distinction between teller characters and reflector characters does not necessarily follow the division to first- and third-person narrators. First-person narrators that do not verbalize their thoughts are not teller characters, if they do not communicate with the reader but only talk to themselves (Stanzel, 1981).

The teller character is a narrator, somebody who conveys or reports the story, and communicates with the reader in this manner. They are more or less conscious of the fact that they are conveying a story to somebody and may comment, anticipate, or otherwise make sure that the reader can follow what is being told. They may also be unreliable by telling things that are not true in the narrative world or misdirect the reader in some other manner.



Figure 4. Winning a duel that never happened in *Call of Juarez: Gunslinger* (Techland, 2013).

An example of a game with an unreliable narrator is *Call of Juarez: Gunslinger* (Techland, 2013). The game is narrated by the protagonist gunslinger, and the events of the game consist of his narration and the speculations of his listeners. This means that the facts of the game fiction change whenever the narration is questioned (e.g., Indians turn into bandits in the middle of a fight), or the narrator corrects someone else speculating on the events (e.g., a duel already won never happened; see Figure 4).

Dragon Age 2 (BioWare, 2011) uses a similar technique. At the beginning of the game, the player character appears very powerful, killing groups of enemies with ease. This is because the beginning is narrated by an exaggerating narrator, later coerced to remain closer to the truth. This change in narration is reflected on two levels: in the game's rules and visual depiction. The rules are changed, so that the main character loses access to powers that were available in the beginning and does less damage to the enemies. The visual depiction also becomes less hyperbolic. This is even reflected in the breast size of a female character, with the breasts portrayed significantly larger in the introduction than later on in the game.

In comparison, a reflector character is not a narrator and is not responsible for conveying the tale. Instead, they experience it. The reader is presented with a description of the character's experiences as they experience them. This also means that they cannot properly be considered deceitful, with the exception of self-deceit (Stanzel, 1978). A reflector character can be confused or misled or they may refuse to accept the truth, but they do not deceive the reader intentionally.

It is also important to make a distinction regarding what Stanzel (1978) calls the person. He divides a person into the categories of identity and nonidentity. This has

to do with the worlds of the narrator and the fiction, which can be either identical (homodiegetic) or separate (heterodiegetic), depending on whether the narrator inhabits the world they narrate (Genette, 1980).

Video games make use of both teller characters and reflector characters. Both types of characters can also be used in several modalities. The modality in games most similar to literature is the written text, which is present in most games. It can be present as written dialogue, which may or may not be also voice-acted and vice versa. This is common enough to be a feature of almost any game with discernible characters, and even of many games with no characters. For example, in *Eufloria* (May, Kremers, & Grainger, 2009), the narrating mother tree is the only character with a distinct personality, but it is only present in the game through textual narration.

Written text may also be present in the form of journals or similar texts that provide direct access to either a character's thoughts or story events. It is common especially in role-playing games to have an in-game journal that catalogues both the past events and the future goals of the player character (e.g., *Skyrim* [Bethesda Game Studios, 2011]). A journal can be diegetic (internal to the game world), extradiegetic (external to the game world) or combine aspects of both, for example, by chronicling the events of the story and providing instructions for the player.

Narration in games can also be done using a voice, for example, with a voice-over. This form of explicit narration can be used either by teller characters or reflector characters, depending on whether the character is simply verbalizing their thoughts for themselves or for the benefit of the player.⁵ *Alan Wake* (Remedy Entertainment, 2010) has both textual and verbal narration. The textual narration is encountered in the game as loose pages of a book that the player may pick up. The voice-over is performed by Alan Wake, the game's teller character.

It is also possible to break what is seemingly logical or possible within the game world and produce different kinds of impossible narrators. This is often done in literature and cinema, for example, with narrators that survive their own deaths and continue narrating the story. This can create surprise or amazement in readers/viewers witnessing this impossibility.

It is not necessary for the narrating character to be the protagonist, or even a character the player plays. *Bastion* (Supergiant Games, 2011) features a seemingly omniscient teller character that follows the actions of the protagonist from an outside point of view, but who is nevertheless a character within the fictional world.⁶ *Bastion* is also a good example when discussing something Tavinor (2009) points out: the events that happen in a video game are at least partially chosen by the player, and in that sense might not be chosen for their narrative function. The actions players do in games may instead serve a tactical or playful purpose.

This is highlighted in *Bastion*, when the narrator starts commenting on the player's repeated actions, like destroying the scenery. Destroying scenery instead of proceeding in the game's story serves less and less narrative purpose. *Bastion* shows that the role of the narrator might not be limited to conveying the narrative. While

the narrator is important in relaying the story of the game, it also spends large portions of the game describing seemingly inconsequential events. This serves as a reminder of the arguments Sicart (2011) and Ryan (2002) present on the contradiction of play, interactivity and narrativity.

It seems that video games can use both teller characters and reflector characters in ways similar to literature. Teller characters and reflector characters can use text, but games also offer other means to convey their meanings. A common way of doing this is by using spoken language. Additionally, a teller character could, for example, break the fourth wall by pointing at things, gesturing, or making faces at the player. This would imply that they acknowledge the presence of someone witnessing the events taking place, even if the fictive world is incapable of perceiving them.

Because games generally require some kind of input from the player to proceed, it follows that games as systems are built with the assumption that there is a person witnessing the events of the game. If there is not, the game either does not continue, waiting for the player to do something, or it will end very quickly, often with the demise of the player character. This could be used for different kinds of meaning-effects by varying the amount the characters are aware of and interact with the player.

Granularity

According to Bundgaard (2010, p. 26), “[g]ranularity and density capture the fineness/coarseness of a description and its richness with respect to elements mentioned within it.” There is a natural level of granularity in literary description that corresponds to how perception works (Bundgaard, 2013). There is a basic phenomenological level on which humans are aware of their surroundings even when they are not paying special attention to anything. By using this level of description, narration creates the impression that the described events correspond to the level of detail of human perceptual experience.

Fictional worlds in both literary works and games are incomplete in the sense that they never specify everything about the world (Juul, 2005). Another way of saying this is to call fiction indeterminate, since they are never defined in perfect detail and could correspond with many different states of being: there is no determinate way to interpret fiction (Ingarden, Frizer, Chipp, 1970). Juul (2005) also argues that some games have what he calls incoherent worlds, where the rules and fiction of the game clash. His example is *Donkey Kong* (Nintendo, 1981) in which Mario has three lives for no apparent fictional reason.

By relying on expectations regarding how perception works, narration can omit many things and still remain coherent. For example, a text does not need to explicitly mention that people are clothed, because that is the assumption of most readers. A lengthy literary work could omit all descriptions of clothing without the readers assuming that the characters are naked.

Only deviations from the assumption of the basic level of description need to be specified (Walton, 1990). In most contexts, being clothed hardly requires a mention. Being clothed is the assumed standard because it reflects our everyday experiences of people and their tendency to wear clothes. Ryan (1980) argues that interpreting fiction, we use the principle of minimal departure to make sense of the world. The principle states that we interpret fiction as being the closest equivalent to the reality we know. Different contexts create different expectations: we cannot assume equivalence as freely when discussing works of fantasy or science fiction.

Deviations from the norm can also be used to create meaning-effects. Sudden changes in specificity can, for example, focus the reader's or player's attention to some particular detail or object. This might signal focused attention from the character narrating the events. Constant focused attention or attention to things that feels unnatural to the reader or player can create a feeling of alienation and possibly reflect a distorted view of the world.

Games contain different types of granularity. It is possible to differentiate between, for example, visual granularity and granularity of textual description, sound and simulation. These types of granularity need not reflect the same level of detail but can differ from each other by design.

Both visual granularity and granularity of simulation are issues that are associated with the discussion of realism in games. Visual realism is often seen as an ideal to aim for in games, something that increasing computing power is providing to a degree higher than ever before. This emphasis on visual veracity reflects the discourses on virtual reality or cyberspace, where the central purpose of technology is to create a space where reality and representation become inseparable (e.g., Featherstone & Burrows, 1995). These discourses seem to imply that as granularity increases, mediation decreases (Ryan, 1999).

It is typical that a game portrays a level of visual granularity throughout or changes between a few. Good examples are the normal view and the strategic map of *Civilization V* (Firaxis Games, 2010). The first gives more fine-grained information about the game world, portraying things in more detail, with the latter switching to more iconic representations of the objects in the game world. In theory, the game would be playable with just the icons, as they contain all the necessary information for playing the game. This would lessen the visual granularity of the game and remove things like character animations that are not necessary for playing the game but add to the feel of it.

Usually, the levels of granularity stay constant throughout the game, and different levels serve different purposes, like commanding troops within a sector or seeing the overall situation of a war in a strategic war game with two levels.

Games differ greatly in what they choose to simulate, if they simulate anything at all (entirely abstract games may not be simulations of anything else). This choice is usually associated with the genre and theme of the game. What would be of major importance in one game is insignificant or even banal in another. For example, *Sim-City 4* (Maxis, 2003) features simulations of waste management, but most games do

not. Simulating waste management is interesting only in the context of city management, even if a simulation that aspired for realism would need to include it. The choice of granularity focuses attention on specific elements of the game, highlighting waste management as something necessary in understanding how cities work, but as an unimportant concern in most games.

An illustrative comparison can be made between *Civilization IV* (Firaxis Games, 2005) and *Civilization V*. While pollution is simulated in *Civilization IV*, it is absent from *Civilization V*. While the two games still simulate the same thing (empires), players of *Civilization V* are free from environmental concerns. It would be tempting to read a political statement into this. However, the game was simplified in many aspects between its fourth and fifth instances. A likely explanation is that pollution was one of the many systems that were deemed unnecessarily complex and removed for that reason.

Another example can be found by looking at how games simulate the workings of the human body. *Skyrim* and *Fallout: New Vegas* (Obsidian Entertainment, 2010) simulate how the human body handles nutrition and rest in a similar manner, but with small differences.

In *Skyrim*, the player character will receive stamina points, health points, or both from eating and drinking different foods and drinks. The character will also heal from sleeping and may receive a bonus to experience gain for sleeping in a bed owned by the character. This is beneficial for surviving in the game, but not necessary for completing it.

A player could, for example, choose to have their character in *Skyrim* eat nothing during the game. While this would destroy the believability of the game as a simulation, it would not have any effect on the game on the level of game mechanics, except by making the game more difficult. In addition, the benefit gained from food and drink is relatively minor when compared to healing and stamina potions. This makes the incentive to spend time gathering and consuming food and drink small in comparison to potions.

To understand the world of *Skyrim*, we would need to assume that it differs from our own in how nutrition works and depart from Ryan's (1980) principle of minimal departure. Another way of reading the situation would be to assume that the world's fiction is incoherent in Juul's (2005) terms. The second reading would make sense, considering that most of the world's inhabitants are involved with farming, even if it is both ineffectual and unnecessary. It could be argued that the game world has different rules for the protagonist than for the rest of the population in order to accommodate the needs of playability.

If the player chooses the optional hardcore mode in *Fallout: New Vegas*, the player character must eat, drink, and sleep. With this option enabled, it is necessary to pay attention to the basic human needs of the character in order to complete the game. Eating, drinking, and sleeping are no longer things that make the game easier, but become something that is necessary to keep the player character alive and well. Thematically appropriately *Fallout: New Vegas* also simulates radiation. Exposure

to radiation has harmful effects on the player character's body that will slowly harm and eventually kill them.

The granularity of simulation in *Fallout: New Vegas* is more detailed than in *Skyrim* when it comes to simulating human bodily functions. This change in specificity gives rise to different experiences of the game world: in *Skyrim*, the player character may suddenly die from damage, but unless a tough monster or a misstep from a high cliff kills them, they will continue to get stronger, eventually becoming powerful enough to overcome any obstacle. Walking around the game world is an adventure, and the game encourages bold exploration: even if the player encounters something too dangerous to challenge, they have the option of running away and returning when their character is more experienced, better equipped, and more powerful.

In contrast, exploration in *Fallout: New Vegas* is a more perilous activity. In addition to bandits and monsters, the player must be aware of the character's need for sustenance and of the harmful effects of radiation. Exploration can still be profitable (and often is), yielding better equipment or wealth, but has an added layer of danger: venture too far and too boldly, and you might not make it back. Running out of anti-radiation medicine, food, and water while too far away from the nearest town can lead to a death that is only reversible by returning to an earlier save game. Gaining better equipment does not help if you die in the radioactive wasteland.

This contrast between *Skyrim* and *Fallout: New Vegas* shows a meaning-effect that is achieved by altering the level of granulation in simulation. By simulating human needs, *Fallout: New Vegas* places more emphasis on survival than *Skyrim*. Of course, a cautious approach to save games make either game less likely to lead to a dead end, lessening the effect in *Fallout: New Vegas*.

Here, developers of *Fallout: New Vegas* could have used similar game mechanics than the makers of *XCOM: Enemy Unknown* (Firaxis Games, 2012). *XCOM* has a game mode called Ironman, where the player is prevented from keeping more than one saved game. All choices in the game are final, and the player simply has to accept any failures. This gives all choices weight that is lacking from the games which accept repeated cycles of saving and loading.

Both *Skyrim* and *Fallout: New Vegas* have one thing in common in their simulation of the human body: both use the abstract measure of hit points to simulate character health. Regardless of what other simulation systems these games use for measuring health, loss of hit points is the most common cause of a character's death. In both games, characters can go through truckloads of food and drink in a matter of minutes in order to get more hit points. This causes no ill effect on their stomach or digestive system—things not simulated in the game.

The examples discussing *SimCity 4* and the two Civilization games and comparing *Skyrim* to *Fallout: New Vegas* are just some of the ways different granularities of simulation can lead to the player experiencing the game differently. Even small differences in simulation can lead to large differences in experience, as is the case with *Skyrim* and *Fallout: New Vegas*.

Table 1. Meaning Making Tools Summarized.

Tool	Meaning-Effect	Games
Fog of war	Uncertainty of the surroundings and identification with controlled characters	Dawn of War II, Command & Conquer, and Freeciv
Tabula rasa	Identification with played character	Zork and Half-Life
Hidden motives	Reevaluation of earlier actions	Assassin's Creed III
Emotional filter	Identification with character perspective and access to character emotions from an external perspective	Max Payne and Dead Space 3
Removal of control and change to an external perspective	Helplessness and disassociation	Bioshock and Skyrim
Change to your killer's perspective	Disassociation	Call of Duty: World at War
Change to internal perspective	Identification with played character	Mass Effect 2 and Tomb Raider
Unreliable narration	Doubt about the narrated events	Call of Juarez and Dragon Age 2
Narration of interactive elements	Highlighting meaningful actions	Bastion
Selective simulation	Highlighting important systems and de-emphasizing other aspects	SimCity 4, Civilization IV & 5, Skyrim, and Fallout: New Vegas

Conclusions

This article has not tried to build a comprehensive overview of how the tools it describes are used, but has focused on presenting differences and possibilities in using them. Therefore, the results are eclectic rather than exhaustive, focusing on showing theoretical possibilities in understanding certain ways of expressing things with games.

The examples used in this article draw from existing games, showing that the techniques described here are already in use. What is lacking is a comprehensive understanding how to use these techniques, a recognized language that enables designers to choose the best tool for the task, and academics to identify when one is used. With this goal in mind, Table 1 summarizes some of the findings of this article, hoping that further research complements these results.

As can be seen from the table, many of the tools mentioned concern identification or association. This may either mean that these are common tools, easily used by designers. However, it may also mean that they are easy to identify and I have failed to notice other options. I invite others to extend the examples I have given to fix any possible oversights.

One possible reading on why many of the tools concern identification is that games need these tools in order to reach the level of identification more easily provided by the expressive techniques of literature: internal dialogue, access to character motivations, well-rounded characterizations, and so on. This reading could be used to argue that games use these techniques not because they are easy, but because they are necessary. Not all games try to convey narratives, but the ones that do need to employ tools that suit the task games have traditionally struggled with, combining interactive entertainment with high-quality storytelling.

Another possible reading would be that the tools are actually playing on games' strengths. Games that combine narrative content with interactive gameplay are in the unique position of giving the player characters to look at, explore the world through, and play with. In some sense, this relation is more intimate than in literature, with player action and character action blending into a whole where it can be hard to tell one apart from the other. However, it is exactly here that new possibilities emerge: like the examples of *Bioshock* and *Assassin's Creed III* show, there is room for new tools where games develop their own expressive language that can convey meanings not easily communicated through other media.

Designers can hopefully look at these techniques and see the possibilities they offer, but also notice what has not been done. Focalizations still tend to follow one character, narration usually stays safely within four walls, and hit points are an enduring abstraction. Experimental literature breaks conventions with admirable reliability. One hopes games would have even more room for play.

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Notes

1. For practical approaches designers use to aspire for a commonly shared vision, see, for example, Hagen (2010).
2. This study uses the term "diegesis" in order to clarify some aspects of the discussion. However, the term is not unproblematic when applied to games (see, e.g., Jørgensen, 2013, pp. 65–67).
3. *Assassin's Creed III* is actually the fifth game in the main series. The second game in the series received two sequels. Additionally, there were already three games for handheld consoles and few more for mobile devices.
4. This can be likened to the literary concept of free indirect discourse.

5. Of course, all narration is ultimately for the benefit of the player, but analytically this distinction can still be made.
6. When the protagonist first finds the narrator, he comments, “He finds me. We talk for a spell.”

References

- Aarseth, E. (2001). Computer game studies, year one. *Game Studies*, 1. Retrieved from <http://www.gamestudies.org/0101/editorial.html>
- Aarseth, E. (2003). Playing research: Methodological approaches to game analysis. In *Digital arts and culture conference* (Vol. 16). Melbourne.
- Aarseth, E. (2012). A narrative theory of games. In *Proceedings of the international conference on the foundations of digital games—FDG '12G '12* (p. 129). New York, NY: ACM Press. doi:10.1145/2282338.2282365
- Aarseth, E. J. (1997). *Cybertext*. Baltimore, MD: JHU Press.
- Arjoranta, J. (2011). Do we need real-time hermeneutics? Structures of meaning in games. *Proceedings from DiGRA 2011: Think Design Play*. Utrecht, the Netherlands: Utrecht School of the Arts. Retrieved September 14–17, 2011, from <http://www.digra.org/wp-content/uploads/digital-library/11310.17396.pdf>
- Bal, M. (1997). *Narratology*. Toronto, Canada: University of Toronto Press.
- Bizzocchi, J., & Tanenbaum, J. (2012). Mass effect 2: A case study in the design of game narrative. *Bulletin of Science, Technology & Society*, 32, 393–404. doi:10.1177/0270467612463796
- Bundgaard, P. F. (2010). Means of meaning making in literary art: focalization, mode of narration, and granularity. *Acta Linguistica Hafniensia: International Journal of Linguistics*, 42. Special Issue: Travaux du Cercle Linguistique de Copenhague Vol. XXXIV Linguistics and Poetics.
- Bundgaard, P. F. (2013). Roman Ingarden’s theory of reader experience: A critical assessment. *Semiotica*, 2013, 171–188.
- Calleja, G. (2013). Narrative involvement in digital games. *Conference proceedings from Foundations of Digital Games*. May 14–17, 2013. Chania, Crete, Greece.
- Ciccoricco, D. (2012). Focalization and digital fiction. *Narrative*, 20, 255–276. doi:10.1353/nar.2012.0021
- Elverdam, C., & Aarseth, E. (2007). Game classification and game design: Construction through critical analysis. *Games and Culture*, 2, 3–22. doi:10.1177/1555412006286892
- Evans, V., & Green, M. (2006). *Cognitive linguistics: An introduction* (p. 851). Edinburgh, Scotland: Edinburgh University Press.
- Featherstone, M., & Burrows, R. (Eds.). (1995). *Cyberspace/cyberbodies/cyberpunk: Cultures of technological embodiment*. London, England: Sage. doi:10.4135/9781446250198
- Flanagan, O. J. (1992). *Consciousness reconsidered* (p. 193). Cambridge, MA: MIT press.
- Frasca, G. (2003). Ludologists love stories, too: notes from a debate that never took place. *Proceedings of DiGRA 2003*. Utrecht University and Digital Games Research Association (DiGRA), the Netherlands. Retrieved from <http://www.digra.org/dl/db/05163.01125>

- Genette, G. (1980). *Narrative discourse: An essay in method*. Ithaca, NY: Cornell University Press.
- Genette, G. (1988). *Narrative discourse revisited*. Ithaca, NY: Cornell University Press.
- Hagen, U. (2010). Designing for player experience: How professional game developers communicate design visions. In *DiGRA Nordic 2010: Experiencing Games: Games, Play, and Players*. Stockholm, Sweden: University of Stockholm.
- Herman, D. (1997). Scripts, sequences, and stories: Elements of a postclassical narratology. *Prevention of Money Laundering Act*, 112, 1046–1059. Retrieved from <http://www.jstor.org/stable/463482>
- Ingarden, R., Fizer, J., & Chipp, H. B. (1970). Letters pro and con. *The Journal of Aesthetics and Art Criticism*, 28, 541–543. Retrieved from <http://www.jstor.org/stable/428495>
- Juul, J. (2005). *Half-real: Video games between real rules and fictional worlds* (p. 254). Cambridge, MA: MIT Press.
- Jørgensen, K. (2013). *Gameworld interfaces*. Cambridge, MA: MIT Press.
- Karhulahti, V.-M. (2012). Feelies: The lost art of immersing the narrative. In *DiGRA Nordic 2012 Conference: Local and Global—Games in Culture and Society* (pp. 1–9). Tampere, Finland.
- Mäyrä, F. (2007). The contextual game experience: On the socio-cultural contexts for meaning in digital play. In *Situated play, DiGRA 2007* (pp. 810–814). Tokyo, Japan: Digital Games Research Association.
- Montfort, N. (2007). *Generating narrative variation in interactive fiction*. Philadelphia, PA: University of Pennsylvania. Retrieved from <http://gradworks.umi.com/3271851.pdf>
- Murray, J. H. (1997). *Hamlet on the holodeck: The future of narrative in cyberspace*. New York, NY: Simon & Schuster.
- Nitsche, M. (2005). Focalization in 3D video games. In *Digital Proceedings of Future Play*, Lansing, MI, October 13–15, 2005..
- Pearce, C. (2005). Towards a game theory of game. In N. Wardrip-Fruin & P. Harrigan (Eds.), *First person: New media as story, performance, and game*. Cambridge, MA: MIT Press.
- Ryan, M.-L. (1980). Fiction, non-factuals, and the principle of minimal departure. *Poetics*, 9, 403–422. doi:[http://dx.doi.org/10.1016/0304-422X\(80\)90030-3](http://dx.doi.org/10.1016/0304-422X(80)90030-3)
- Ryan, M.-L. (1999). Immersion vs. interactivity: Virtual reality and literary theory. *SubStance*, 28, 110–137.
- Ryan, M.-L. (2002). Beyond myth and metaphor: Narrative in digital media. *Poetics Today*, 23, 581–609. doi:10.1215/03335372-23-4-581
- Ryan, M.-L. (2013). Transmedial storytelling and transfictionality. *Poetics Today*, 34, 361–388. doi:10.1215/03335372-2325250
- Sicart, M. (2009). *The ethics of computer games*. Cambridge, MA: MIT Press.
- Sicart, M. (2011). Against procedurality. *Game Studies*, 11. Retrieved from http://gamestudies.org/1103/articles/sicart_ap
- Simons, J. (2006). Narrative, games, and theory. *Game Studies*, 7. Retrieved from <http://gamestudies.org/0701/articles/simons>
- Stanzel, F. (1978). ‘Narrative situations in the novel’: Towards a ‘grammar of fiction’. *NOVEL: A Forum on Fiction*, 11, 247–264.

- Stanzel, F. (1981). Teller-characters and reflector-characters in narrative theory. *Poetics Today*, 2, 5–15.
- Tanenbaum, K., & Tanenbaum, J. (2009, December). Commitment to meaning: A reframing of agency in games. In *Digital arts and culture conference: After media—embodiment and context* (pp. 12–15). Irvine, CA: University of California.
- Tavinor, G. (2009). *The art of videogames*. Hoboken, NJ: Wiley-Blackwell.
- Walton, K. (1990). *Mimesis as make-believe: On the foundations of the representational arts*. Cambridge, MA: Harvard University Press.

Game References

- Anderson, T., Blank, M., Daniels, B., & Lebling, D. (1977). Personal software. *Zork*.
- Bethesda Game Studios. (2011). *The Elder Scrolls V: Skyrim*. Bethesda, MD: Bethesda Softworks.
- BioWare. (2010). *Mass Effect 2*. Redwood City, CA: Electronic Arts.
- BioWare. (2011). *Dragon Age II*. Redwood City, CA: Electronic Arts.
- Crystal Dynamics. (2013). *Tomb Raider*. Tokyo, Japan: Square Enix.
- Firaxis Games. (2005). *Civilization IV*. Novato, CA: 2K Games.
- Firaxis Games. (2010). *Civilization V*. Novato, CA: 2K Games.
- Firaxis Games. (2012). *XCOM: Enemy Unknown*. Novato, CA: 2K Games.
- 2K Boston. (2007). *BioShock*. 2K Games: United States.
- May, A., Kremers, R., & Grainger, B. (2009). *Eufhoria*. Bellevue, WA: Valve Corporation.
- Maxis. (2003). *SimCity 4*. Redwood City, CA: Electronic Arts.
- Nintendo. (1981). *Donkey Kong*. Nintendo: Japan.
- Obsidian Entertainment. (2010). *Fallout: New Vegas*. Bethesda, MD: Bethesda Softworks.
- Pajitnov, Alexey. (1984). *Tetris*.
- Relic Entertainment. (2009). *Dawn of War II*. Agoura Hills, CA: THQ.
- Remedy Entertainment. (2001). *Max Payne*. Garland, TX: 3D Realms.
- Remedy Entertainment. (2010). *Alan Wake*. Washington, DC: Microsoft Game Studios.
- Supergiant Games. (2011). *Bastion*. Burbank, CA: Warner Bros, Interactive Entertainment.
- Taito Corporation. (1978). *Space Invaders*. Tokyo, Japan: Taito.
- Techland. (2013). *Call of Juarez: Gunslinger*. Montreuil, France: Ubisoft.
- The Freeciv Project. (1996). *Freeciv. The Freeciv Project*.
- Treyarch. (2008). *Call of Duty: World at War*. Santa Monica, CA: Activision.
- Ubisoft Montreal. (2012). *Assassin's Creed III*. Montreuil, France: Ubisoft.
- Valve Corporation. (1998). *Half-Life*. Simi Valley, CA: Sierra Entertainment.
- Visceral Games. (2013). *Dead Space 3*. Redwood City, CA: Electronic Arts.
- Westwood Studios. (1995). *Command & Conquer*. London, England: Virgin Interactive.

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