

Meaning Effects in Video Games

Focalization, Granularity and Mode of Narration in Games

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Abstract

This paper looks at three concepts from narratology – focalization, granularity and mode of narration – and explores how these concepts apply to games. It is shown how these concepts can be used as tools for creating certain meaning effects, understood here as cognitive responses from the player. Games have the usual focalizations (zero, external, internal) available to them, but add an additional hybrid perspective. Sudden changes in focalization can be used to create meaning effects, for example by highlighting the players loss of control over the situation. Games use different types of narrators, with multiple possible modalities. There have already been some exploration of the use of an untrustworthy narrator. Other possible ways to create meaning effects with narrators include omniscient or impossible narrators and changes in how aware the narrator is of their being a narrator. Games have different modes of granularity, ranging from visual and textual to simulative. Choices in granularity – what to portray and with how much detail – have a great impact on the game experience. Some abstractions are so common as to be taken for granted (hit points), while others are subtle (simulating thirst and hunger), but can change the game experience in profound ways.

Keywords: focalization, granularity, narrativity, 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 games are both awe-inspiring and developing fast enough to make yesterday's games appear dated. Yet, the area where games with multi-million dollar budgets seem to struggle appears to be the story. Telling good stories is not easy, telling them in games seems to be even harder. Hopefully, understanding games and understanding stories in games better will make that task easier. This paper tries to make it easier by providing tools from narratological theory and showing how these tools apply to games.

The term 'video game' is here used as a general descriptor for games played on typically digital platforms, like gaming consoles or personal computers. There are significant differences between platforms that are not considered here, but which may affect how the meaning effects manifest. This is especially true with the rise of new types play (e.g. casual, asynchronous) and new platforms (e.g. the smart phone).

Discussing these differences would be outside the scope of this paper. For the same reason this paper will not discuss non-digital games, even if the differences would arguably be even greater than between digital platforms.

Narrativity

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

One argument that could be seen as being against using narrative tools to understand games is Juul's (2001) argument that movies do not translate into games very well. But as Jenkins (2004) points out,

understanding translation as Juul does might not be the most constructive way of framing the issue. There is more to adaptation to simple translation of event from one medium to another.

There have also been worries of game studies being "colonized" by other fields with their own interests, issues, and framings, and in doing so, translating games into terms that are ill-equipped to handle them (e.g. Aarseth, 1997). However, it has been pointed out that although classical narratological concepts are not perhaps applicable to games as such, this does not delimit narratology's scope altogether outside games. The application just needs to be aware of the differences between games and other media and perhaps, what limitations those differences set (Pearce, 2005; Tavinor, 2009; Calleja, 2013). One example is the difference between scripted narratives and emergent or interactive narratives described by Tavinor (2009). 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 (see Sicart, 2011 about the problems of structural analysis of games without taking play into account).

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 analysed with narratological tools, like analysing 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). However, the value of such analysis is far from self-evident. The tools presented below could be used for analysing either of these examples, but that would probably only be useful as a scholarly exercise. The analysis here tries to focus on games with a clearer narrative content, even if it is often just a matter of degree. It also tries to steer away from the other senses of narrativity, like retroactive attribution of story to a sequence of events and reporting of game events to other people.

Meaning Effects

This paper tries to show how certain narratological tools can be used in video games to create meaning effects. Varying how these tools are used produces different meanings in literature, and should do so also in video games. However, it is not claimed that these meaning effects are stable, i.e. that they consistently can be said to produce 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, 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, 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 textual, but may also be something else, 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. However, limiting the meaning in games to cognitive processes of one person in isolation 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.

Studying how games can be used to create meaning 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. Some of the issues that need to be taken into account in studying meaning are discussed in (Arjoranta, 2011). Meaning effects are one of the ways meaning is created in relation to games, but not the only way.

Tools for Meaning-Making

Video games differ from literature in several aspects, not least of them being their multi-modal nature. The approach taken in this paper is not so interested in the ontology of games – e.g. 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 as means of producing meaning effects. These three concepts are discussed in relation because they are related, that is, they all pertain to the perspective and way of telling the player/reader what it is that they are seeing and how. They all concern the perspective of telling, the way, distance and view the narrative is told from.

In addition to showing how these concepts apply to video games, they are extended in order to cover cases not found in literature, but present in games. The central differences from literature that require this extension are player agency and the interactivity found in games (Arjoranta, 2011). These concepts are discussed in order to give game scholars a more specific vocabulary in studying certain aspects of games. Hopefully, these three concepts shed some light into understanding how to create specific types of meaning effects in games. Designers can also use these ways of creating meaning effects to convey the things they want to convey in a consistent and effective manner.

Focalization

Focalization is the point of view things are seen from (Bundgaard, 2010; see also 'perspectival system' in Evans & Green, 2006, p.196). This can be from a point of view of a character present in the story, several characters, or outside any thinking being, a point in space. Any of these can include evaluations, judgements or feelings. In the case of a point-in-space-perspective the evaluations can belong to a narrator.

Genette (1988) calls these perspective. He classifies perspective into three categories: zero focalization, external focalization and internal focalization. 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 behaviouristic view on the characters, while internal focalization grants access to their mental landscape. These can be mixed in a single narrative, and all three can be present.

This scale of perspectives can be found in full in video games. There are significant differences how these are used in between genres of games. A full review of these would be beyond the scope of this paper. Instead, some examples are discussed.

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

A game may of course have a strategic level of abstraction and still have other forms of focalization than zero focalization. Dawn of War II (Relic Entertainment, 2009) is a strategy game continuing in the same genre as Command & Conquer, but focalizes the single player game by using a central protagonist. However, when playing other modes (e.g. multiplayer), there is no focalization.

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

This is where games differ from literature. A players 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. An example of this would 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, the only things the player might infer any agency to him is from his actions. But those are also almost completely controlled by the player, even during scripted sequences, where the players 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 through viewing the actions of that character as his own actions. Whether this is successful depends also heavily on other factors, like the coherency of the characters actions when the player is not controlling them, the actions of other characters within the storyline and their reactions to the players character. To create identification it is not enough to consider the player character in 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 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.

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

Video games may also employ a technique not available in literature to describe a character's internal state, by suddenly taking away player control and having a character act regardless of the players wishes, perhaps in a harmful or destructive manner. This sudden removal of control limits the players agency (Tanenbaum & Tanenbaum, 2009) and can be used to highlight the players helplessness in the situation. Sicart's (2009) 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 in question dies or goes unconscious. This disassociates the perspective from the character and signals that the player has lost control of the characters actions. An example of games that do this is The Elder Scrolls V: Skyrim (Bethesda Game Studios, 2011). It possible to play Skyrim from a third person perspective, with the player character visible on the screen, but it is mostly played from a first person

perspective. When something kills the player character, the camera lifts outside the dead character, which can be seen falling down, limp and lifeless.

Another example of this change of perspective is usually known as the "kill cam". It is used in multiplayer modes of first-person shooters, like for example Call of Duty: World at War (Treyarch, 2008). A kill cam uses the same disassociated perspective as 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 own death and the actions that lead to your characters death. 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 killer.

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 character being played portrayed on the screen. But both games show parts of the introductory cinematic from an internal perspective, with the camera situated where the characters 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.

Hotline Miami (Dennaton Games, 2012) uses the clash between actions the player takes during the play sessions and what is shown during a cut-scene to create similar disassociating effect. Hotline Miami is a ultra-violent action game that uses retro-style graphics and puzzle-like structure to disassociate the player from the fact that to proceed in the game they must murder large amounts of (digital) people in gruesome ways. The protagonist gets assignments from phone calls and goes murdering with a mask on. However, the reality of the violence is affirmed close to the beginning of the game. During a cut-scene the protagonist is shown being overcome by his violent actions, taking off his mask and vomiting on the ground. Suddenly, the game reminds the player that the problems solved during play are not simply some abstract obstacles, but humans murdered. This can be seen as a deliberate attempt at creating a meaning effect by contrasting the narrative with the gameplay.

It seems that games have at their disposal all the same perspectives that literature does (zero, external and internal focalization), but also one additional perspective. 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 *tabula rasa*, 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. The distinction concerns the mediacy of the narration (Stanzel, 1978).

The teller-character is a narrator, somebody who conveys or reports the story and is in this manner in communication with the reader. 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 or misdirect the reader in some other manner.

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 by a description of the characters experiences as they experience them. This also means that they cannot properly be considered deceitful, unless one considers self-deceit (Stanzel, 1978). A reflector-character can be confused, mislead and refuse to accept to truth, but they do not do so to mislead the reader. An example of an untrustworthy narrator in games 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 speculation 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 played never happened).

Dragon Age 2 (BioWare, 2011) uses a similar technique. The characters appear very powerful in the beginning of the game, killing hordes of enemies with ease. This is because the beginning is narrated by an exaggerating narrator, later coerced to remain closer to the truth. This is even reflected in the breast-size of a female character, with the breasts portrayed significantly larger in the introduction than later in the game.

The distinction between teller-character 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 talk only to themselves (Stanzel, 1981). It is also important to make a distinction regarding what Stanzel (1978) calls the person. He divides person to two different categories of identity and non-identity. This concerns whether the worlds of the narrator and the fiction are identical or separate, or in other words, whether the narrator inhabits the world they are narrating about.

Video games make use of both teller-character and reflector-characters. Both types of characters can also be used in several modalities. The modality in games most similar to literature is written text, which is omnipresent in 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 of many with no characters (e.g. Euforia [May, Kremers & Grainger, 2009]).

Written text may also be present in the form of journals or similar texts that provide direct access to either character thoughts or story events. It is common in especially games of the role-playing genre to feature an ingame-journal that catalogues both the past events and future goals of the player character (e.g. Skyrim [Bethesda Game Studios, 2011]). It can be used as a tool to help the player to remember all the events of the story, even if there is an extended pause between play-sessions. Games may use both diegetic and extradiegetic texts. A journal can be either or both, having instructions to the player, and chronicling the events of the story so far in a diegetic manner.

Narration in games may also be done with voice. One of the ways this is accomplished in games is by using voice-over. This form of explicit narration can be used either by teller-characters or reflector characters, depending on if the character is simply verbalizing their thoughts for themselves or for the benefit of the player. *Alan Wake* (Remedy Entertainment, 2010) has both textual and verbal narration. First is done by an impersonal narrator in text form, in pages of a book that the player may or may not pick up during the game, second is provided by a teller-character as a voice-over, by the protagonist Alan Wake.

Another example of a teller-character is found in *Final Fantasy X* (Square 2001). It starts with the protagonist explicitly narrating "Listen to my story" to the player in the introduction sequence. The game then progresses from past events to the current time, where the storytelling is happening.

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 in several ways, for example with narrators that survive their own deaths and continue narrating the story. This can create surprise or amazement in readers/viewers, who witness this impossibility.

It is not necessary that the narrating character is 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 world¹. *Bastion* is also a good example to discuss something Tavinor (2009) points out: in video games the events that happen in the game are at least partially chosen by the player, and in that sense might not be chosen for their narrative function. Instead, the actions players do in games may primarily serve a tactical purpose. This is highlighted in *Bastion*, when the narrator starts paying attention to the fact that

It seems that video games can use both teller-characters and reflector-characters in similar ways as is done in literature. Teller-characters and reflector-characters can use text, but in games they also have others means of conveying their meanings. The most common way of doing this by using spoken

language, but other methods could also be used. For example, a teller-character could 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 to the demise of the player character. This could be used for different kinds of meaning effects by varying the amount the characters are aware and interact with the player.

Granularity

According to Bundgaard (2010, 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). It seems that there is a basic phenomenological level of how humans are aware of their surroundings, when they are not paying special attention to things. By using this level of description, a narration creates the impression that the events described correspond to the level of detail of human perceptual experience.

By relying on basic human expectations on how perception works a 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 an assumption most readers will take for granted. A lengthy literary work could omit all description of clothing without the readers assuming that the characters are not clothed.

It is only deviations from these assumptions that need to be specified (see "reality principle" in Walton, 1990). In most contexts it is usually not that somebody is clothed that requires a mention, but the opposite. Of course, it is the context that defines a deviation. Being clothed is the assumed standard because it reflects our everyday experiences of people and their tendency to wear to clothes. Different

contexts create different expectations: we cannot assume as freely when discussing a work of fantasy or science fiction.

Deviations from the norm can also be used for specific purposes, to create certain meaning effects in a text. Sudden changes in specificity can, for example, focus a readers attention on some particular detail or object. This might signal focused attention from the character that is narrating, or is being used for narrating, the events. Constant focused attention or attention to things that feels unnatural to the reader can create a feeling of alienation and possibly reflect a deeply pathological view of the world.

Games contain different types of granularity. It is possible to differentiate between, for example, visual granularity, granularity of textual description and granularity of simulation. These types of granularity need not reflect the same level of granularity, but can differ from each other by design. These differences can be used for certain purposes, like in the example of *Lone Survivor* (Superflat Games & Curve Studios, 2012), a psychological horror game. It uses a retro-graphical look of old video games, but aims for a deep psychological narrative. The juxtaposition of these two aspects places the emphasis on the psychological, as the visual portrayal of horror is indistinct at best.

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 higher degree 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).

However, as the possibility of realism nears, the models for what realism looks like become more complicated. In recent examples (e.g. *Battlefield 3* [EA Digital Illusions CE, 2011]) games have used effects from cinema to look more real, for example by applying lens flare to games that are supposedly portrayed through a first-person perspective. The first-person perspective would seem to imply that there is no mediation between what the player character sees and what the player sees (i.e. a teller-character),

but the presence of lens flare seems to indicate otherwise. The ideal of looking real does not come from reality itself anymore, but from some other portrayal of that reality, in this case cinema.

It is typical that a game portrays a certain level of visual granularity throughout, or changes between few of them, for example 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 the game.

Usually the levels of granularity stay constant throughout the game, and different levels serve different purposes, like commanding troops within a certain 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 the theme of the game. What would be of major importance in one game is insignificant or even banal in another. For example, SimCity 4 (Maxis, 2003) features simulation of waste management, but most games do not. Simulating waste management is interesting only in the context of city management, and is absent from other strategy games that feature cities, like Civilization V (Firaxis Games, 2010). Instead of city management, Civilization V (Firaxis Games, 2010) focuses on empire management, and in that context waste management would be a too specific problem. This choice of granularity focuses attention to certain elements of the game, highlighting waste management as something necessary in understanding how cities work, but not an important concern when it comes to empire management. Another illustrative comparison can be made between Civilization IV (Firaxis Games, 2005) and Civilization V. While pollution and sickness are simulated in Civilization IV, they are absent from Civilization V. While they still simulated the same thing (empires), players of Civilization V are free from environmental concerns.

Similar choices are made on a more specific level of simulating how human bodies work. A difference can be found when comparing how Skyrim (Bethesda Game Studios, 2011) and Fallout: New Vegas (Obsidian Entertainment, 2010) simulate how the human body handles nutrition and rest. Both use very similar game mechanics, except for one crucial difference: if the player chooses the optional hard core mode in Fallout: New Vegas the player character must eat, drink and sleep.

In Skyrim the player character will receive either stamina points, health points or both from eating different foods and drinking different 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 in surviving the game, but not necessary for completing the game. A player could, for example, choose not to have their character eat anything 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 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.

But in Fallout: New Vegas, the player has the option of playing the game in hard core-mode, which changes what is simulated in the game. In hard core-mode it is necessary for the player to pay attention to basic human needs 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 something that is completely absent from Skyrim: radiation. Being immersed in radiation has slowly increasing harmful effects on the player characters body, eventually killing them.

The granularity of simulation in Fallout: New Vegas is on a more specific level than in Skyrim when it comes to simulating the human body. 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 in the game. Walking around the game world is an adventure, and the game encourages bold exploration: even if the player encounters something too powerful to beat, they have the option of running away and returning at a later level.

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 player characters need for sustenance and 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 radiation medicine, food and water while too far away from the nearest location of civilization can lead to a death that is only reversible by returning to an earlier save. Gaining levels and better equipment does not do much good, if you die in the radioactive wasteland.

This contrast between *Skyrim* and *Fallout: New Vegas* shows a specific 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, cautious approaches to save games make either game less likely to lead to an dead end, lessening the effect in *Fallout: New Vegas*.

Of course, both *Skyrim* and *Fallout: New Vegas* have one thing in common in their choice of simulation: both use the abstract measure of hit points to simulate character health. Regardless of what other simulation systems these games use for measuring the health of characters, loss of hit points is most often the cause of character death. And because hit points are replenished by food items, in both games characters can go through truckloads of food and drink in a matter of minutes without any ill effect to their stomach or digestive system – things not simulated by the game.

The examples of comparing *SimCity 4* to *Civilization V* and *Skyrim* to *Fallout: New Vegas* are just some of the ways different granularities of simulation can lead to different meaning effects. Even small differences in simulation can lead to large differences in experience, as in the case of *Skyrim* and *Fallout: New Vegas*.

Conclusions

Games are a relatively new media, and while design study has shown ways of creating meaningful games, there is no reason games researchers could not benefit from applying tools from other media, if the specifics of games as a media are kept in mind. This paper shows that focalization, mode of narration and granularity can be and are used in creating meaning effects in games, often at the same time. Examples from already published games show these techniques are already in use, but becoming aware of what these techniques are and how and why they work will enable designers to use them in a more conscious manner.

Meaning-making tool	Modes
Focalization	Zero, external, internal, hybrid
Mode of narration	Teller-character, reflector-character, different modalities
Granularity	Textual, visual, simulative

Table 1: Summary of meaning-making tools

In addition to the perspectives available in literature, video games seem to feature a focalization not available elsewhere. This hybrid perspective combines aspects of external and internal focalization, providing access to a character's physical perspective and control of their actions, but not letting the player access the character's mental landscape. This embodied perspective is available to some extent in other media, but they do not usually feature the interactivity possible in games. This perspective can be used either as tool for creating closeness between the player and the character played, essentially turning a tabula rasa-character to an extension of the player. Or it can be used for as a distancing tool, by showing the player that having control of a character can be a fleeting thing and having control over a characters actions can be far from knowing their thoughts.

Video games make use of both teller- and reflector characters when conveying their story. Games can use different kinds of narrators in different modalities, perhaps having the protagonist act as a

reflector-character, but having a teller-character narrate the story through some other media, like text. Journals in role-playing games and voice-overs in all kinds of genres are examples of typical narrating techniques in games. Unlike most media, games are interactive, so both teller- and reflector characters can provide feedback to the player. Players can then use this feedback to change their behaviour, possibly changing how the story plays out.

The concept of granularity can be applied to games in different forms, specifying textual, visual or simulative granularity. Textual granularity is analogous to how the concept is used in literature studies, with the exception that in video games it is one of several, parallel concepts. Visual granularity is the specificity and veracity of a games visual representation. It can be related to discussions of game realism, as realistic visual representation is one of the key issues in realism. However, what is considered realistic is not always so clear cut. Recent examples of games have used cinema as a model for what realism looks like, essentially replacing reality with a representation reality as a model for realism. Games can also vary in the granularity of their simulation. The choice of what to simulate and how specific to be in simulating something can have a great effect on player experience. This choice also determines a great deal of what the focus of the game is.

[1] When the protagonist first finds the narrator, he comments: "He finds me. We talk for a spell."

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